

Opening the Sea gates of Europe: Interaction in the Southern Adriatic Sea during the Late Bronze Age

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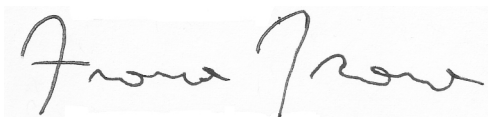
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Volume I

DECLARATION

I Francesco Iacono confirm that the work presented in this thesis is my own
Where information has been gathered from other sources, this is indicated in the
text..

Signed:

A handwritten signature in black ink, appearing to read "Francesco Iacono", is written over a light gray rectangular background.

Francesco Iacono

Abstract

This research analyses the modes and outcomes of economic and social interaction, adopting a theoretical framework that merges elements of Marxism and social network thinking. The focus is on the Bronze Age societies constituting the interface between the Eastern Mediterranean and Europe, the area around the Southern Adriatic Sea in the period from the establishment of the first regular contacts with the Aegean world, up to the end of the 2nd millennium BC. The primary medium through which the examination is carried out is pottery from a number of key sites in the region, which is analysed through a variety of methodologies, including contextual and stylistic comparison as well as formal network analyses.

The study is organized as a diachronic enquiry in which evidence from a large number of contexts (examined in relation to both consumption and production) is deployed to discuss the development of three nested scales through which interaction took place. The first of these scales is the individual community, with the main case study provided by the long-lived site of Roca in Apulia, which has yielded the largest amount of Aegean-type material retrieved to date west of Greece. This material is largely unpublished and is comprehensively analysed for the first time. The second scale considers the region of Apulia on the western side of the Adriatic, which was the focus of intense interaction with the Aegean world during the second half of the 2nd millennium BC. The final scale encompasses much of the Mediterranean and assesses the long-term and large-scale implications of the phenomena observed at the site and region levels.

The results of this study highlight the critical role played by southern Adriatic societies in establishing and maintaining interaction with other areas of the Mediterranean, and stresses at the same time the important social implications of such linkages.

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Prologue

Why what happened in the Southern Adriatic is of general interest

Towards the end of the Bronze Age, the Mediterranean Sea connected two entirely different universes. On the one side, lies the so-called eastern ‘cradle of civilisation’, with up to two millennia of state societies, often organized in urban centres, written historical records and relatively ‘developed’ forms of economic life. On the other side the ‘barbarian’ west, characterized by communities small in size and arguably simple, as far as political organisation and economic specialization are concerned. At one end of the same water stands ancient history, at the other prehistory (Figure 1.1.1).

Although these differences are, from many points of view, ideologically laden and need in many ways a thorough deconstruction, they nevertheless capture, in the form of a literary cliché, differences that *do* exist and cannot be purely considered as the product of scholars’ attitudes towards the past.

For this reason, since the end of the 19th century AD, the east-west connection and its wider social implications have been the object of much interest in archaeology and, indeed, can still be considered one of the main problems in Mediterranean late prehistory. This interest, however, has normally been directed either towards the large-scale end of this phenomenon (using generalising formulas such as ‘World System’ or ‘Metallurgic Koinè’ e.g. Frank 1993, Müller-Karpe 1960) or, more recently, to the way local communities ‘consumed’ products constituting the material ‘stuff’ of interaction (i.e. Van Wijngaarden 2002). My claim is that understanding how this interaction affected processes of social reproduction around the Mediterranean, means moving beyond this simplified dichotomy.

The aim of this research will be that of reconstructing and analysing the history of the encounter of these two different worlds, both at the micro-anthropological and macro-economic dimensions. I will do so by means of the archaeological record of regions constituting the immediate interface between the east and the west, namely those facing the southern Adriatic sea on the Balkan and the southern Italian sides, during the Late Bronze Age. Because of their position, these regions were implicated in long-range connections from an early date, thus representing a privileged point for observing the effects of inter-societal interaction in the long-term. Throughout the period studied, the southern Adriatic maintained a considerable level of interconnectedness, due to the presence of extensive local as well as inter-regional exchange networks, and their documentation, analysis and interpretation is at the centre of the present analysis.

Excluding local communities, along with the people inhabiting regions facing the northern part of the Adriatic, the main cultural component interacting in the southern Adriatic were people from the Aegean, who represented the westernmost outpost of the 'east'. For Minoans and Mycenaeans the southern Adriatic, arguably, was not important in itself but rather, given its nature as a gateway, as an inescapable communication node towards more resource rich parts of Europe. Yet these actors embodied very different models of society and their coming into contact was not without significant effects.

In dealing with this encounter, therefore, it will be necessary to adopt a theoretical approach that will allow me not only to fully assess the nature and the intensity of these effects on southern Adriatic societies, but also to establish how, in turn, these changes affected the processes through which interaction took place. This approach, in itself new, has actually a long intellectual ancestry in Marxist social theory.

Through this theoretical 'lens', it will be possible to address some research questions whose relevance ranges from the realm of the specific to the most general level possible. As far as the specificities of our context are concerned, this study will assess:

- What was the level of interconnection of communities of the southern Adriatic before they were incorporated in large-scale pan-Mediterranean networks of interaction; were pre-existing local linkages decisive factors in triggering their inclusion in this overarching lattice?
- In what ways did this process of ‘incorporation’ affect social dynamics within southern Adriatic communities, in terms of both social practices and the incipient development of inequalities?
- Conversely, how did the incorporation of these new social entities change the macro-level networks, forging new relations and equilibria?
- What was the role of space and the geographic location of the southern Adriatic in influencing these processes?

On the basis of this assessment and through the southern Adriatic example, it will be possible to address some more general issues related to the broader functioning of inter-societal interaction, which are:

- How do the social mechanics of inter-societal interaction function?
- In what ways is inter-societal interaction affected by the different models of society (i.e. Modes of Production, see section 1.3) expressed by entities taking part in it?
- What is the role of location and distance in all this?

In Chapter 1, after a critical review of previous approaches to interaction in archaeology, I will try to expose the functioning of my theoretical perspective, sketching in the last paragraph, the way this might work with societies interacting around the southern Adriatic sea during the Late Bronze Age. In Chapter 2, an overview of the social geography of the Adriatic during the Bronze Age is offered, together with a synopsis of the previous research conducted in the area and a brief outline of pre-Late Bronze Age connections. Chapter 3 is devoted to methodology and here I will clarify how the approach presented in Chapter 1 works in practice, including details regarding the kind of analyses undertaken and the sampling

strategy adopted for the main case-study for this research, i.e. the site of Roca in Apulia.

Chapters 4, 5 and 6 are identical in structure and represent the real 'meat' of this study. Each of these chapters deals with a specific time-slice (according to the Italian periodization), into which the overall period of this research is subdivided (Middle Bronze Age: Chapter 4, Recent Bronze Age: Chapter 5, and Final Bronze Age: Chapter 6). In each, the evidence related to interaction in the southern Adriatic is presented according to the three spatial levels (from the community to the inter-regional) introduced in Chapters 1 and 3, and is thoroughly investigated by means of different kinds of analyses. In the last paragraphs of each of these chapters, the results of the analyses are considered in the light of the theoretical approach. In Chapter 7 the results obtained are presented in a comprehensive synthesis, accompanied by a thorough discussion.

Chapter 1

An Archaeology of Interaction

1.1 What is interaction in archaeology?

In the last fifteen years the term interaction has gained a renewed popularity in archaeological discourse, replacing almost completely other more value-laden terms such as trade, exchange or migration. This return to fashion has, of course, easily recognizable historical reasons, the most obvious one being the neutrality of its meaning, more in tune with the “incorporeal” exchange of data that dominates our lives in the age of the internet. Naturally enough this trend is particularly visible in contexts, such as the late prehistory and ancient history of the Mediterranean, for which communication represents a crucial factor (Morris 2003). However it would be an error to consider such change as a merely lexical one, as undoubtedly the term ‘interaction’ is more able to capture the intrinsically ambiguous nature of what we might identify in the archaeological domain, as we shall see. But what is interaction in archaeology?

Very little attention has been devoted so far to the exploration of the theoretical underpinnings of what is normally labelled ‘interaction’ in common archaeological discourse (Odess 1998: 417; Renfrew & Cherry 1986; Schortman 1989; Schortman & Urban 2004), not least, as noted by some (Schortman 1989; Sherratt 1997), because of the fundamental lack of familiarity of influential schools of thought (such as Processual archaeology) with inter-societal analysis.

The Oxford dictionary defines interaction as “Reciprocal action; action or influence of persons or things on each other”. The obvious prerequisite for interaction is therefore the existence of two or more entities (either persons or things). These entities, however, need to be really distinct, for example spatially segregated. Therefore the key element that leads to the identification of interaction in the archaeological record is the existence of a ‘gap’ between the entities involved, an empty zone (in terms of the things being analysed) that needs to be crossed. The range of this gap may vary so that we can speak of long-range, regional or local interaction. When this gap is reasonably short, interaction can often be automatically inferred, even in the absence of direct evidence for it. This kind of approach is the one adopted by network approaches (i.e. Broodbank 2000 that uses *point proximal analysis*) where a dense web of connection is drawn only on the basis of physical contiguity or, in the more complex versions, of least cost paths (Knappett et al. 2008). This is also the perspective of what will be termed the ‘micro-ecological’ approach (Horden & Purcell 2000), where connectivity is considered a fundamental feature of the relations between people and the environment. At the other end of the geographical spectrum, long-range interaction has been conceived by World System theorists (Frank 1993) as a world-wide universal affecting the development of every human society in some form. For all these approaches, interaction is an immanent property of social life.

The nature of what happened to the interacting parts is profoundly ambivalent. Interaction is, at the same time, action (from the Latin verb *agere*: to act) and influence (a nuance of meaning that probably derives from the use of the word in physics). Much of the attention previously devoted to the topic of interaction in archaeology has been actually dedicated to the nature of the action (see next session), ironically an aspect that is unavoidably out of the sphere of direct observation by archaeologists.

Influence, a quite abstract concept in itself has received, in comparison, far less attention and although there have been some attempts to investigate it (Renfrew & Level 1979), still evades explicit definitions, perhaps because it potentially encompasses an endless variety of social practices, even more so than

action. We can, however, try to translate it in the broadest possible social terms as the results of the action, its effects. Indeed only this last element of the overall semantic field of the word 'interaction', is what is directly represented in material culture assemblages. These effects can manifest themselves in a variety of ways. They can be tangible items and/or raw materials which are moved across space. They can be information (either technological and/or stylistic) regarding those items, which implies a certain familiarity with the original objects (as in the case of local imitations of exogenous objects, see e.g. Nakou 1995: 13-15). Finally, they can be as immaterial as the reproduction of a practice attested in another locale.

The effects of the actions, therefore, are not limited to their direct material outcome. It is necessary to re-translate the pattern recognized in the archaeological domain again into social terms, trying to assess the more profound effects of the actions on the everyday life of the communities involved. This, of course, constitutes a further level of interpretation, in which high level social theory (*sensu* Trigger 2006, as opposed to Middle Range Theory) plays a privileged role. It is at this level that elements that at a first sight may appear not to be consistent as a trace of interaction may acquire a renewed importance. This consideration is the basis of World System approaches, where differential trends in the increase and decrease of various (mainly economic) characteristics in archaeological sites are linked to large scale dynamics that can be understood only in their holistic context.

In brief, from these considerations, it is possible to argue that the word 'interaction' has been used by archaeologists to represent a number of different meanings, usually solidifying around the 'action' and its repercussion in the social domain. At an immediate material level, it is possible to define interaction in the broadest possible sense as *the discontinuous spatial displacement of similar materials and/or remains of actions archaeologically traceable to an exogenous origin*. Albeit operationally useful, this definition does not account for other deeper social effects of interaction that are, in the end, what really matters. In the following discussion all the different facets of interaction that have been highlighted so far will be taken into consideration in the attempt to address the nature of the different kinds of actions and the scope of their effects on the

societies involved.

Comparing models of economies: Primitivist, Formalist and everything in between

As mentioned, the identification of the nature of action has been the object of much attention in past theoretical debate. The aim of Renfrew's (1969, 1975; see also Clark 1979) systematization, for instance, was to reconstruct the various possible actions behind the effects identified at an archaeological level by means of a number of different models of 'trade'. As is well known, the validity of this approach has long ago been questioned (Hodder & Orton 1976: 99-154) suggesting the impossibility of linking in an unequivocal fashion the effects observed in the archaeological record with the action and leading (perhaps too easily) to an overall rejection of Renfrew's methodological proposal. Moreover, as recently suggested by Bevan (2007) in his work on stone vessels in the eastern Mediterranean, trade is only one possibility in a range of possible actions (Figure 1.1.2) which may well include coerced or voluntary movement of people, looting and theft.

Bevan's point implicitly raises a problem that has been at the centre of one of the most important debates in the history of economic anthropology, one initiated more than half a century ago by followers of the formalist and primitivist (or substantivist) approaches, concerning which model of economy should be envisaged for pre-modern societies. Was economic interaction structured in the pre-modern past around the same principles as it is today?

The bone of contention between the two positions resides basically in the possibility of applying formal economic theory — namely micro-economic theory derived from the study of modern capitalist society — to pre-modern societies (Godelier 1996; Isaac 2005). According to the formalists this is possible and, in the course of the centuries, the basic functioning of human economies has been regulated always by the same principles (i.e. Schneider 1974). As an alternative, the substantivist approach (derived from the work of economist Karl Polanyi, popularized in ancient history by Moses Finley and in prehistory and anthropology

by Marshall Sahlins, see Finley 1999; Sahlins 1972) proposed, instead, the existence of two main guiding principles for 'primitive' economies (Sahlins 1972). They were:

-'embeddedness', according to which the study of economy should be considered within the context of overall social relationships (Polanyi 1944);

-'reciprocity', according to which the chief goal in transactions for individuals in pre-modern economies was social, that is maintaining others in a condition of high 'indebtedness', thus preserving an eminent social position (Mauss 1966; Sahlins 1972). This last concept has been further refined by Sahlins, who categorized reciprocity in three 'levels', *generalized*, *balanced* and *negative*, denoted by growing 'economic' objectives (see Figure 1.1.3 and Sahlins 1972: 197-204).

Although recently this discussion seems to have lost most of its appeal, in the not-so-distant past, rivers of ink have flowed over this divergence, and, as often happens, the hard opposition between the two positions is difficult to maintain as both hold some truth. Sahlins' very acknowledgement of the existence of a *negative* 'economically oriented' *reciprocity* reveals that the dichotomy between formalism and substantivism is not irreconcilable. As will be seen, the notion of 'embeddedness' is an important one as it allows us to make sense of much of the different possible dimensions and uses of material cultural items in human societies. However, as many have already noticed, the very existence of a purely subsistence economy in which prestige remains completely detached from the material domain is something of a myth (Sherratt 2004; Sherratt & Sherratt 1998; Wolf 1997). Even in societies presenting extremely low levels of social complexity and capital accumulation, the domestic units often create occasions for exchange and the development of political economies (*sensu* Earle 2002; see also Godelier 1977: 3, 1996; Spiellman 1986).

Both 'embeddedness' and basic processes of demand and supply played different roles in different contexts in articulating the economic life of prehistoric and ancient communities. They both operated contemporaneously with different

intensities, depending on the organisation that characterized different societies. Sometimes *homo oeconomicus* and *homo reciprocus* dominated the stage of human interaction virtually in isolation, in other cases (I would add in the majority of the historical instances) human behaviour oscillated between these two extremes reaching only precarious equilibria. It is possible to envisage the relationship between embedded and dis-embedded practices as a sort of continuous distribution (for a similar point see Smith 2004) whose extremities are not exemplified by many real world cases.

Those who stress the irreducible structural difference of the modern setting (as some critics of World System theory; see below and Gosden 2004), in my view fail to recognize the dynamic relationship between economic and social phenomena. As this is profoundly affected and transformed by culture contact and cultural influence between different societies, interaction feeds back into its very functioning, literally reshaping itself. It will be therefore necessary at this point to critically re-evaluate some of the previous approaches to cultural influence, that is the effect of the action, in order to close the hermeneutic circle and to be able to propose a viable alternative.

1.2 Paradigms for interaction in the late prehistory of the Mediterranean

Childe's diffusionism and the 'acculturation' paradigm

Establishing the way in which interaction affected various societies has always been one of the main problems in prehistory. In Childe's (1925) classic account, for instance, a meta-narrative of migrations and invasions was adjusted so as to provide a description of the possible effects of the contact between different societies. The spread of cultural traits was brought about by human groups, craftsmen and 'prospectors' identified by their archaeological counterparts, namely 'cultures'. These groups and/or individuals moved widely across space and

time by means of individual or group migrations (Childe 1925, 1950), trade (Childe 1930: 42; intended in a rather 'formalist' fashion), military conquest or (more rarely) colonial occupation (i.e. Childe 1925: 314), always bearing with them their homeland cultures with all their specific technological choices. These kinds of explanations were explicitly modelled on accounts reported by ancient historical sources (Childe 1956). At the time in which Childe was writing, however, a similar paradigm was of course consistent not only with what early 20th century every-day experience of invasion and colonisation perpetrated by colonial powers suggested, but also with the interpretative models adopted by other disciplines in some way related to archaeology such as, for instance, historical linguistics (Renfrew 1973, 1988). Yet, as is well known, the advent of radiocarbon dating and the establishment of a long chronology for Mediterranean and European prehistory undermined severely Childe's pseudo-historical interaction model (Renfrew 1973).

As anthropology's tools become more widely used by archaeologists, acculturation became gradually the standard answer to the questions raised by situations of interaction and culture contact. It should be stressed that when the 'acculturation' model appeared, it provided a more nuanced alternative to dominant 'diffusionist' explanations. According to a classic definition based on the work of Redfield et al. (1936: 149), acculturation:

"comprehends those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original culture patterns of either or both groups."

In the same way as its anthropological counterpart, however, the acculturation 'paradigm' in archaeology and history became a one-way characterization, with one subject that imposed some features on the other that passively accepted them (Bartel 1989; Deagan 1998: 28). More importantly, acculturation basically failed to explain the possible processes through which new cultural traits were acquired, negotiated, and finally incorporated in the receiving context (Deagan 1998: 26).

Globalisation of late prehistory: World System theory and 'Braudelian' routes networks

After a period of *damnatio memoriae* during which archaeological interest towards exogenous dynamics was severely reduced (Sherratt 1993: 1, 1997: 72-73) inter-societal interaction resurged again as one of the main themes to be discussed with the adoption in archaeology of a paradigm developed in the field of economics, namely, World System theory. According to the basic version of the approach developed by Frank and Wallerstein, it is possible to subdivide the analysis of economic interaction into a hierarchy of zones, namely a core and a periphery. A core is an economic area that exports primarily finished products or more broadly, products with added value, and acquires from its partners mainly raw materials or goods with prime value. Conversely, a periphery is an entity that acquires chiefly finished goods and exports predominantly raw materials. In his seminal work, Wallerstein (1974) added to these two basic concepts a third element, namely the semi-periphery, which represents an intermediate position between core and periphery, acting as a periphery (vis-à-vis the core), and as a core in relation to segments of the periphery. Cores, peripheries and semi-peripheries are functionally linked to one another and 'development' or 'underdevelopment' in one component affects in a determinant way that of another area, with various possible outcomes depending on the theorists (Amin 1974; Frank 1969; Wallerstein 1974).

This model has been widely used in Mediterranean and Near Eastern archaeology alike, as well as in European prehistory (Algaze 1993; Frank 1993; Frankenstein & Rowlands 1978; Kardulias 1996; Kohl 1987; Kristiansen 1998; Sherratt 1993). This resulted in a variety of modifications explicitly tailored to pre-modern societies. Among these, a particularly useful notion is that of a 'margin'. According to Jane Schneider (Schneider 1977), the margin should represent an area which is largely out of the sphere of interaction of the World System, though still somehow influenced by it. Likewise, other scholars expanded the functioning between components of the World System also to include activities which could not be only considered as pertaining to the economic 'sphere' (Wilkinson 1987; Chase-Dunn & Hall 1993; Hall et al. 2010). The equation core = finished products,

periphery = raw materials remained therefore only a possible instance of a wider range of power relations. However, the more the model became flexible and effectively able to cope with the pre-modern world, the less remained of its essential heuristic value. In recent years World System approaches have been the object of a severe critique. The points raised by critics normally converged around two main points:

- It is unrealistic to consider the modalities of interaction (and particularly those of economic interaction) in prehistoric and ancient times as essentially similar to those of the modern world; a point which echoes the similar one central to the formalist/substantivist debate (Gosden 2004; Cusick 1998; Renfrew & Cherry 1986).

- No active role is left to peripheries in the processes of social change since they can only passively receive cultural influence (Gosden 2004; Stein 1999).

More recently, scholars adopting World Systemic perspectives, particularly A. and S. Sherratt (1998; see also Sherratt 2010), have focused less on the economic implications of core-periphery hierarchies and more on their socio-ideological implications, as well as on the long term effects of these connections. In this renewed perspective what is important rather than the individual societies involved in interaction are the overall properties of the network. Characteristic of this perspective is a more 'Braudelian' attention towards the historical importance of geographical features over the *longue durée*.

Despite all the "bad press" (for non-archaeological critiques see also: Brenner 1977; Brewer 1990; Skocpol 1977), some of the themes introduced in theoretical discussion by World System theory undoubtedly deserve attention. For instance, the necessity to adopt units of analysis which are larger than the individual political entity, or the existence of systemic linkages between what happened in two different interacting areas, are issues that it will not be possible to ignore and that, as will be seen, will contribute considerably to the theoretical approach that will be adopted in the analysis of the southern Adriatic.

Peer-Polity Interaction: Equality as an axiom

An attempt to find some kind of alternative to World System theory and core-periphery models is offered by the Peer-Polity Interaction approach. This model, advanced long ago by Renfrew and Cherry (1986), should account for those instances where analogous features (what Renfrew calls 'structural homologies') appear almost simultaneously in closely linked polities of comparable size. According to Renfrew this represented the outcome of a series of interactions articulating in different fields and including:

- competition (whose scope ranges from emulation to warfare);
- symbolic entrainment and transmission of innovations;
- goods exchange.

However, if we exclude the factor of 'competitive emulation' which undoubtedly provides a credible explanation for the case study often proposed to support his theoretical statement — i.e. the emergence of similar political structures and cultural phenomena in first millennium Greece (Snodgrass 1986) — very little more is added to our comprehension of past phenomena. Similarities just emerged because of interaction. As noted by Renfrew himself, as well as by others, in many respects, the peer-polity interaction hypothesis appears often at risk of being tautological, basing its recognition on the same evidence which it is supposed to explain (Kosso & Kosso 1995; Renfrew and Cherry 1986: 7).

Another main problem with Renfrew's approach is the decision to consider subjects involved in interaction as 'equal' or, indeed, 'peer' in status. What is to be done with apparent and less apparent differences recognizable among different political actors is not clear. This question is even more vital in the environmentally rich Mediterranean, where, as has been argued, diversity often favours the development of inequalities (see below and Horden and Purcell 2000).

Finally and more importantly, contrary to more nuanced versions of the World System approach (e.g. Frankenstein & Rowlands 1978; Sherratt 1993), in the Peer Polity Interaction model there is no reference to the interplay between different components within the societies of the interacting polities, and to how dynamics internal to the societies may help to orientate interaction trends (Friedman & Rowlands 1977).

Against the tyranny of the large scale: Horden and Purcell and the micro-ecological approach

Another kind of response to grand scale Braudelian narratives of human interaction can be identified in Horden and Purcell's micro-ecological approach. These scholars, in their majestic book *The Corrupting Sea* (Horden and Purcell 2000), identify a determining process that triggered interaction in the varying micro-environments that denote regions around the Mediterranean. Drawing partly on Halstead's theory of 'bad years economics' (Halstead & O'Shea 1989), they argue that exploitation of different ecological niches was a fundamental aspect of human interaction, particularly considering the relative ease of mobility which characterises on average the Mediterranean area. This perspective, however, rather than producing an environmentally deterministic narrative, actually results in an historical account where the ways by which resources are socially gathered and mobilized are at the centre of the process. A privileged role is claimed for small Mediterranean islands (Horden & Purcell 2000: 224-230), as they normally include inside their perimeter a variety of micro-environmental niches offering a similarly wide array of opportunities to be exploited. Yet the notion of 'insularity' which is critical in the Horden and Purcell's approach, belong also "to places that are not literal islands" and that possess "the quality of being in the 'swim' of communications" (Horden and Purcell 2000: 77).

Although Horden and Purcell's discussion was developed primarily from the viewpoint of the historian, their work resonated widely also in archaeology (Athanasopoulos & Wandsnider 2004; Blake & Knapp 2005; Broodbank 2011;

Harris 2006; Morris 2003; Walsh 2008), orienting research agendas of prehistorians and classical archaeologists working in the Mediterranean (Blake & Knapp 2005). It can be argued that to some extent the approach adopted in *The Corrupting Sea*, which privileges the micro- over the macro-dimension, was developed in opposition to the tyranny of the large-scale which dominated the study of interaction in the Mediterranean since Braudel's seminal work. This position, however, led these scholars to downplay the importance of large-scale phenomena, which are normally considered quite important by prehistorians (such as long-range trade of metals: Horden and Purcell 2000: 346-348), and without taking these into consideration, much of prehistoric 'connectivity' would make very little sense if at all. Furthermore, as suggested by Morris (2003), often Horden and Purcell's approach results in a kind of *mediterraneanism* which is particularly able to deal with the static synchronic dimension but is of little help in highlighting the diachronic dimension of historical processes. Overall the 'connectivity' paradigm has a lot to offer to the analysis of Mediterranean interaction, particularly when dealing with the construction of small networks for which immediate environmental complementarity can be considered a crucial feature, and, as such, it will be deployed for the analysis of similar situations in the southern Adriatic.

New trends and the retreat from the social

The tendency toward an *a priori* assertion of the equivalence of entities taking part in interaction, which has been seen at work in the Peer Polity Interaction paradigm, is epitomised in its most extreme form in another approach that has gained some popularity in recent years, i.e. that of symmetrical archaeology. This is based on a much wider movement in social theory named Actor Network Theory, originating in the 1980s from the studies of Callon (1989), Latour (1993) and Law (1993) on the sociology of technology. The starting point of such analyses was the equal (and hence the symmetrical) status of humans and non-humans (embraced in the all-encompassing category of actants) taking part in interaction, including both animals and inanimate objects. It is not possible here to discuss in any detail this vast trend of social theory in the last few decades. It is sufficient here to note that Actor Network Theory or ANT has been criticised by various scholars for being de-

humanising (Vandenberghe 2002), for not having a clear epistemological status (Harman 2009: 16, 127), as well as for representing a further step back by academics into their ivory tower (Barnes 2001). The fact that ANT represents an overt retreat from the social (since, according to this approach this is an *explicandum*), is seen by Latour as a necessary step back in order to unpack many of the constructs usually taken for granted by what he calls social constructionism (broadly corresponding to most of previous social theory, see Latour 2005). However, in a sense, Latour's work marks a shift from "a critical sociology that it never fails to explain" (Latour 2005: 251) to ANT that never *tries* to explain, as indeed description and the impossibility of 'reducing' different objects (what is named 'principle of irreduction'; Latour 2005: 107) is deemed to be the main point upon which ANT hinges.

With the usual delay, ANT has landed in the field of archaeological inquiry only relatively recently (Hodder 2011; Knappett & Malafouris 2008; Olsen 2010; Webmoor 2007; Shanks 2007), receiving much attention (a specific issue of *World Archaeology* in 2007 was dedicated to this subject). The approach is not without allure for a material centred discipline such as archaeology and, on the positive side, it allows for a more serious attempt to understand the way in which material cultural items affect processes of socialization (in broad agreement with some strands of social anthropology, e.g. Gell 1998; Gosden 2005; Kopytoff 1986). Yet, as highlighted by Ingold (2008) in his ironical Aesopian tale where ANT is portrayed as a real ant, assuming the perfect equivalence of animate and inanimate entities reduces agency to the material properties of an actant, removing completely intentionality. More importantly, removing intentionality means removing responsibilities, which are shifted from individuals or groups of individuals to the indeterminate domain of a network where nobody is accountable.

The most thorough attempt at adopting an ANT based approach to interaction is represented by the recent book by Knappett (2011), where however, he juxtaposes somewhat naively ANT with Social Networks.¹ The theoretical

¹ There is a very basic epistemological reason why ANT and Social Networks are fundamentally incompatible. Like any other mathematical construct, network measures and properties (for a more

discussion of different spatial scales (i.e. the micro, the meso and the macro) is accompanied by a series of case studies mostly drawn from Knappett's own work on palatial Crete. Consistent with the theoretical underpinnings of the study, the social dimension of interaction, how this concretely impinges on the life of the community, is very rarely touched upon, except in the most schematic way in the final discussion of each chapter. All the focus is on the role of objects, while the ways human socialization reacts to and is modified by such stimuli is left completely unconsidered.²

In conclusion, what remains of ANT's approach in archaeology is the metaphor of a loose network whose development through time is unintelligible to the scholar (very much like God's will for medieval man), and in which people are just pieces in a puzzle as important as a pot-herd or an obsidian flake.

1.3 The Relational Materialist alternative

The social and the material

Despite the issues highlighted in the previous sections, the concerns over the lack of emphasis on the material that animated the adoption of ANT in archaeology (as well as in other social sciences) have undoubtedly a real base. Indeed, it is beyond doubt that the last two to three decades or so of archaeological theory have prompted the diffusion of approaches in which the symbolic domain was often considered the first and foremost domain of the enquiry (Hodder 1982; Hodder &

thorough introduction to networks see below and Chapter 3) represent what philosophers of science (and most notably critical realists) call transcendent powers (Bhaskar 2008), 'regularities' which apply to a variety of objects and, indeed, the fact that different networks behave in broadly the same ways represents one of the very reasons for the success of this approach in recent times. ANT does not recognize the existence of any transcending element, as any relation encompassed by the network objects of its analysis (or, better, description) need to be embodied in real world entities (in the philosophical jargon is 'actualist': Harman 2011: 127). To this extent, it is not by chance that Latour has openly asserted that ANT has little to do with social networks (Latour 1996: 369-370).

² This tendency represents a peculiar 'convergence' with the approach of another recent strand of archaeological theory, namely evolutionary archaeology, some strands of which have indeed been criticised for not paying due attention to the social dimension (christened in the Darwinian terminology as the 'unit of replication of cultural traits', see Gabora 2006).

Hutson 2004; Preucel 2006; Robb 1998; Shanks & Tilley 1987). Yet it is important not to forget that, in turn, interpretative approaches stemmed from an in depth criticism of over-simplistic materialist models typical of the early days of processual archaeology, centred in a faith in thermodynamic cultural systems (a criticism started already within the Processual 'school'; see Bintliff 1995; Wylie 1989).

A middle ground is therefore to be sought if we are to move forward in any sense and, of course, reaching this is far from easy.

Limiting the discussion only to the specific issue at stake, namely interaction, the approach followed in this study will consider the material aspect of social life as an indispensable framework which organises our understanding of past social realities, a 'scaffolding' upon which all other aspects of the life of the community will be (re)constructed (for a similar point see McGuire 1992). To take the opposite route, i.e. to assume a primacy of the immaterial over the material is to reiterate a fundamental misunderstanding over archaeologists' position with respect of the archaeological source material. Archaeologists are non-neutral external observers of a world of things and places entwined in a mutual relation, which in turn betoken the existence and the activity of people beyond their direct experience. The 'material' represents the obvious and (dare I say) obligatory entryway into a society's world since with archaeology other alternatives are non-existent (i.e. there is no direct *cultural immersion* of the kind available to ethnographers). This is, naturally enough, not to say either that the material framework subsumes the whole social field or that other aspects such as symbolism, cosmological order and other less tangible elements cannot feed-back on such structure, even modify it profoundly, to the contrary.

In order to understand how the relationship between the material and the social is articulated it will be necessary to introduce a concept that will be crucial for the understanding of the general argument here proposed. This is the notion of capital, which in the meaning adopted in this study escapes the economic-oriented (read formalist, see above) underpinnings often entailed by the common sense use

of the word. Rather, for the context of this analysis as well as in other pre-modern settings, capital is congealed human labour in its explicit (actual work, products) and implicit (obligations ratified through a variety of social practices and sanctions) forms. As a result what is here defined as capital encompasses a variety of aspects which are 'expendable' in the social arena of small scale societies including:

"food, women [and men, we might add], children, possessions, charms, land, labour, services, religious offices, rank—everything is stuff to be given away and repaid. In perpetual interchange of what we may call spiritual matter, comprising men and things, these elements pass and repass between clans and individuals, ranks, sexes and generations." (Mauss 1966: 10-12).³

In other words, the definition of capital here adopted conforms with the original notion proposed by Marx (see Marx 1981 [1887]) in his *Capital*, enriched with our current understanding of the specificities of pre-modern economies according to which the social and 'personal' implications of transactions are what makes them really worthwhile (Gregory 1982: 12). Phrased in such a way, this definition may appear to some extent static, but this objection does not take into account the dynamic nature of societies themselves. As the conditions of material production and social transactions mutate within and across societies (see below), so does the nature of social relations involved.

According to such a perspective, material culture as retrieved through archaeological research does *not* represent the very stuff of capital as might be argued at first sight. Rather, it comprises only that portion of capital (or better what remains after archaeological formation processes) that is directly accessible to archaeological investigation. It is, naturally enough, possible to reconstruct some of the remaining pieces of the social puzzle, although such an operation, as I will try to demonstrate below, requires much caution as well as the continuous use

³ Among these factors, as we shall see, in the context analysed, a chief role was played by a specific kind of 'charm'. This is the enchanting aura of mystical knowledge and *savoir-faire* that traveling, as an action, projected onto those who undertake it, in the eyes of those excluded from it (Helms 1989; Nakou 1995). In becoming social, this psychological property contributed considerably to the dynamics occurring in our study area (e.g. section 4.4).

of comparison. This comparison is based neither on formal cross-cultural analogy (Binford 1967), nor on the ambiguous definition of relational analogy (Hodder & Hutson 2004: 194). It is a theoretical construct, what will be named in the next paragraphs Mode of Production, and what will guide our reconstruction of past social realities (see below).

A problem of scale

Underlying the critical debate on the possible approaches to the study of interaction as an 'effect', was also the fundamental issue of the scale of analysis. Indeed it is possible to notice a cyclical shift in the interest of researchers from external explanations to internal ones, from the macro to the micro and to the macro again, a shift that, as many have already noticed, has more to do with historical political contingencies which affected the genesis and the popularity of these approaches, rather than with their effective ability to explain human interaction (Trigger 1984, 2006). So if it is true, as Gosden (2004) notes, that human sociability up to the end of the Middle Ages never reached a level even vaguely comparable with that of the contemporary 'modern World System' it is likewise unquestionable that some of the features which characterize the modern setting in which we live were already expressed *in nuce* in our remote past. Not acknowledging this means not only ignoring the macroscopic movement of goods and ideas that denotes much of late prehistory and classical times, but also endorsing a unilinear vision of human social evolution that can hardly be defended.

Similarly, although it is clear that regionalism and micro-environmental features severely constrained or empowered human interaction in the course of time, it is true also that when a network of communities overcame a certain threshold of connectivity and intensity of interaction, the outcome of these processes becomes completely unintelligible from the standpoint of the individual community (i.e. the example of Early Bronze Age Cyclades; see Broodbank 2000).

Understanding the functioning of human interaction and its social implications entails necessarily taking into consideration the large, the medium and the small scale, and their mutual interplay. As a consequence, it will be necessary to take up an approach that starts from the community, building up different levels of interaction to the large scale. This approach, here formulated, while new in itself, draws on an extensive tradition of studies that has been one of the most important of the 20th century, namely Marxist social theory.

Why Marxism?

It is undoubted that evoking Marx's ghost well after the turn of the new millennium may wrinkle many people's noses (Burawoy 2000; Patterson 2003) and, indeed, there should be plenty of reasons not to do so, as such an approach seems to infringe most of the unwritten rules of archaeological theory building since:

- It is not new or 'fresh' (it has been around for more than or at least as much time as the 'prehistoric' culture history paradigm in all its real and fictional forms; see Lyman & O'Brien 2004);
- It is not trendy (having long gone out of fashion in most quarters of English-speaking academia, since the end of the 1970s or early 1980s);
- It has received an extremely bad press in recent times, mostly due to its improper connection with totalitarian regimes around the world (Burawoy 2000), albeit, as has clearly emerged, the publication of the entire corpus of Marx's and Engels' writings was seriously feared and fiercely opposed by Stalinism (Anderson 2010: 248-250).

Despite these shortcomings, I believe that as never before, in this precise historical moment, after the fall of the eastern bloc, researchers are actually 'free' to make the most of the theoretical constructs of this rich branch of scholarship, transforming these from the tools of a political hegemony to empowering instruments for the critical analysis of the world.

This is because it is beyond doubt that most of the core issues in which Marxism has been traditionally interested, due to the worsening of the global financial crisis, have become again (as was the case during the 1970s) matters of vivid public interest. A critical re-assessment of the way society deals with inequality and with the process of appropriation/distribution of resources is no longer a topic confined to the nostalgic few. Understanding how different models of society respond to these specific issues is a major problem in an era of global capitalism where the most disparate social realities are dragged into contact and often conflict by the most overwhelming forces of the market. The reader might object at this point that archaeology, and prehistoric archaeology all the more so, has little to do with such overarching processes. My claim, however, is that the fundamental functioning of social interaction as a whole can actually be captured by the few concepts described in the following pages and that their potential relevance goes far beyond the disciplinary limits of archaeology. The proposal that will be put forward, indeed, aims at being what has been termed high level theory (Trigger 2006) and will not follow the relativistic epistemology which has been endorsed in the last few decades by most of the cultural strands stemming from the (post-) Marxist debate, above all by post-modern social theory (for a concise introduction to these issues, see Butler 2002). The standpoint of this analysis is, instead, in the mould of the position achieved by Critical Realism (Bhaskar 2008), which albeit acknowledging the socially situated nature of knowledge, ratifies the existence of transcending elements whose applicability can be potentially (profitably) extended to other fields of enquiry.⁴

Re-starting from Marx: Relations of Production and Consumption

Now that the cultural coordinates of the conceptual approach that will characterise this analysis have been made explicit, it is possible to introduce some of its basic

⁴ There is a clear disagreement with the recent proposal by McGuire (2008) who sees (Marxist) archaeological practice as the dialectical development from critique to knowledge to praxis. Rather, the perspective followed here considers the establishment of a base of shared knowledge as an indispensable starting point to make critique sound and to empower subsequent political praxis.

building blocks. Some of these will sound familiar, while others not. This is because the approach is aimed at explaining interaction, while Marxist theorists have always put at the centre of their analysis the individual communities and their internal processes of societal differentiation. The reason for this choice resides in the fact that Marx himself paid very little attention to the study of interconnected entities, focusing on what Amin (1974a) would call self-centred systems (Brewer 1990, but see Uemura 2010: 13-16). Some eclecticism will be therefore necessary and I will draw upon sources different from Marx's own writings on the analysis of intra-societal relationships.

However, in my view, there is no structural difference in the applicability of Marx's method, at the level of individual communities or at the level of different spatially and located human groups, since the kinds of relationships that Marx suggests apply equally well at both levels. Indeed, using some caution and paying attention to the outcomes of the interplay of processes at different scales, it will be possible to move from the discrete social entity to the larger network using analogous conceptual tools. As we shall see, the concepts that I will adopt in this further stage will necessarily entail as a first step the analysis of the functioning of the individual systems that interact, namely the individual communities, and then build from that up to the large scale.

According to a Marxist perspective, the key elements in the social and material life of communities are the **Relations of Production** (Marx & Engels 1976 [1932]). These are normal social relations but they acquire a determining role in that they come to regulate: a) the way by which societies organise labour activities in order to meet their needs, and at the same time b) the 'metabolic' relationship between human collectivities and the material world (what Marx calls the Means of Production). Relations of Production cannot be reduced to mere production in common sense terms, as critics of Marxism often claimed (Benton 1989). Rather, they always encapsulate both production and consumption (Marx 1981; Foster 2000), as the two acts, according to Marx as well as most of the Marxist traditions, cannot really be detached from one another. As a result of their different positioning with respect to Relations of Production, two different classes

emerge in the societies, one of surplus producers and one of surplus consumers/appropriators. The conflict between these two classes is what generates social change. It is of course necessary to bear in mind that class difference (Saitta 2005) is a conceptual tool that is applicable with different degrees to different societies. Indeed in some societies, and particularly in those defined as 'less complex' by students of social typology, the difference between surplus producer and surplus consumer need not to be as absolute and straightforward as it is in states or other forms of 'complex' societies, and it will be necessary to take into consideration this element, given that most of the communities that will be the object of this analysis belong to the former category.

Modes of Production

As has been said, under particular conditions, some social relations take up the role of Relations of Production, thus characterizing the whole social production. This characterization is what Marx refers to as the **Mode of Production** (Marx & Engels 1976). As is well known, however, Modes of Production are substantially different from other social typologies (i.e. Service 1971) as they are inherently dynamic and do not correspond necessarily to any given political form (Friedman 1975). Relations of Production are never the only social relation present in societies and other relationships may at some point rise to this chief role, thus producing a structural change, that is a change in the mode of production. Those structural changes of course do not necessarily cause a sudden disappearance of previous Relations of Production, which remain present in the social field. Likewise relationships which will denote future Modes of Production are already present in previous social configurations, although only in an embryonic way, and indeed each Mode of Production bears in itself the contradictions that, when ripe, will eventually produce the development of a new mode.

In a number of (mostly posthumous) works Marx and Engels (primarily in the *German Ideology*, *The Ethnological notebooks* and *The Origin of the Family*; see Anderson 2010; Marx 1976 [1932]; Marx 1974; Marx & Engels 1968: 455-593)

identified a number of Modes of Production based on the ethnographic information then available to them (primarily in the work of L.H. Morgan). Of course, as ethnographic knowledge expanded many scholars amended Marx and Engels' original formulations, proposing a number of different possible Modes of Production and revising old definitions (Godelier 1977: 99-124). Yet this proliferation often produced only more confusion than depth of analysis (see e.g. the example of Terray [1972], which identifies a different Mode of Production for each labour activity of the society he was studying; see also Resch 1992: 112-115). As will be seen, the only two Modes of Production relevant to the topic of this study are the Tributary and the Kin Ordered Mode of Production as defined by Eric Wolf (1997 [1982]) in his seminal work. In the following sections it will be explained why this is so and which of the societies interacting in the southern Adriatic can be effectively represented by each of these modes.

Interaction in a Relational Materialist perspective.

The features highlighted up to this point can describe the functioning of individual political entities in a Marxist perspective, but how are the principles so far highlighted able to shed light on the ways in which societies interact? A first consideration with regard to an inter-societal Marxist approach is that actually, interaction is not enacted by whole societies but by segments within them. One of the main stimuli for groups within communities to establish relationships with more or less distant partners is, naturally enough, the procurement of valued resources that will reinforce the group's position within internal Relations of Production. These resources, however, do not need to be uniquely material. On the contrary, one of the most precious and sought after resource, human labour, when not transformed in slavery, is absolutely social in nature. Partners involved in interaction will normally tend to reiterate it as long as this allows them to enhance their position with respect of Relations of Production within their own societies.

Among groups of people that take part in interaction, however, there are some substantial differences. This is because not all groups are equally able to

access the means through which interaction happens (**Means of Interaction**). These means can be either material, as for instance a ship that is equipped and used to move people and/or goods from one place to another, and/or social, as is, for example, the acknowledgement of the membership of a clan or family within a small circle of international elite exchange (i.e. the case of the gift exchange attested between sovereigns in the Amarna Letters in the Eastern Mediterranean, or the Kula Ring in the Trobriands Islands; see (Leach & Leach 1983; Liverani 2002; Moran 1992).

Therefore, as with Relations of Production, the different positioning of groups with respect to the **Relations of Interaction** can create a class division that transgresses the boundaries of individual societies. The interests of these two new classes need not be the same as those created by Relations of Production. As a consequence a contradiction could emerge between these two sets of interests, namely those referring to internal and to inter-societal classes. The effects of interaction on the social structure of different societies involved will vary widely, depending basically on the results of the process of negotiation between these interests. Indeed, when in one society the class which interacts and controls the Means of Interaction does not correspond to that controlling the Means of Production, and interaction is able to procure to this group a considerable amount of capital, then this may result in a shift of internal power equilibria and an acceleration in the emergence of contradiction within a given mode of production (that is a change in internal Relations of Production producing rapid — often abrupt — social change). On the contrary, when Relations of Interaction favour the same class which is dominant in Relations of Production, it is possible to suggest that the result will be a reinforcement of the existing order, accompanied in some specific conditions by the institutionalisation of the same.

Those who have a relatively better positioning in Relations of Interaction are in a privileged position as they can interrupt the connection channel or divert it towards another destination if the requirements that lead them to initiate interaction in the first instance are no longer fulfilled. On the contrary, those who

are 'weak' in Relations of Interaction are left only with the possibility to 'accept' or 'decline' connections and have little possibility to influence its course.

Relations of Interaction can be extremely variable, depending on the scale of the distance that needs to be covered by the Means of Interaction. Establishing a connection with a village nearby might have been within reach of a far wider range of people than, for instance, organising a journey by sea towards a remote locale. A positive correlation therefore normally exists between strength in Relations of Production and strength in Relations of Interaction, although this is not automatic. To this extent, it must be stressed that in the time frame we are interested in, normally, the segment of population within societies that had active access to long-range interaction tends to coincide with that constituting the class of surplus consumer/appropriators in Relations of Production. Indeed only this component of prehistoric and ancient societies (generally referred to in the archaeological literature as 'elites') could afford — normally expending a portion of the surplus created by surplus producers — to establish external relations (it is not until very recently that connecting distant places has become a relatively cheap practice).⁵ The frequent overlap, particularly in pre-modern settings, between those strong in Relations of Production and those predominant in Relations of Interaction, constitutes probably one of the reasons why these two conceptually distinct social groups have been always (and continue to be) conflated in an all-encompassing notion of 'elite'.

Modes of Interaction

The set of relationships described above can be effectively captured introducing a last, fundamental concept that will be crucial in analysing the specific object of this study, namely that of **Modes of Interaction**. Modes of Interaction are the result of the intersection across space of societies with different Modes of Production. As such, they are determined by both: a) the Modes of Production of societies involved in interaction, and b) the space separating societies that interact (Figure

⁵ Therefore the notion of dependency which is basic to many World System theorists (Wallerstein 1974; Frank 1969; Brewer 1990: 161-195) actually captures a very specific situation in which societies representing the Core have exclusive access to means of interaction, thus preventing any active involvement by peripheries in interaction.

1.2.1). This of course does not mean that given two sets of societies characterised by the same Mode of Production and placed in similar physical conditions, they will necessarily interact in the same way, although undeniably the main features of the Mode of Interaction will constitute a powerful constraint to possible ways of interacting.

The notion of space adopted in defining a Mode of Interaction should not be envisaged in terms of 'Euclidean' geometric distance, but rather in terms of time expended for travelling and ease of movement in relation to the Means of Interaction available. This consideration appears to be even more important in pre-modern settings where limits of existing means of transportation severely affected the movement of people and things. It is possible, therefore, to categorize the space around each community representing a finite Mode of Production, as constituted by a number of concentric nets characterized by a predisposition toward certain kinds of interaction (Figure 1.2.2).⁶

So immediately around the community, where interaction can enjoy a greater ease of movement, it is possible to identify the **Bulk Goods Net**. In this area, interaction between two Modes of Production can also entail the movement of a large mass of produce with relatively little effort. In simple agrarian communities normally this net is very limited, comprising basically what archaeologists and geographers define as the site catchment. On the contrary, in larger political units (as, for example, in those often described by the Tributary Mode of Production, see below), this can become quite extensive depending on the ability and the willingness to expend surplus in improving the Means of Interaction. In the modern World System, the Bulk Goods Net includes the whole world.

Further off, it is possible to recognize the **Political/Military Net**. At this distance, it is more advantageous for communities to establish interactions either

⁶ These categories are drawn upon the work of Chase-Dunn and Hall (1993, 1997: 52-57) with some modifications.

politically or military by means of alliances, political marriages and similar activities (Chase-Dunn & Hall 1997; Wilkinson 1987).

Proceeding outward, there is a third level, namely that of the **Prestige Goods Net**. Here, given the constraint posed by distance, interaction will be centred on the exchange of few critical resources and/or valuable items, not implying a necessarily continued political or military involvement (but it may, for instance, include raids and pirate activity). Again critical in defining the range of this sphere of interaction are features such as the power of the Means of Interaction adopted and level of significance of the resource sought in internal Relations of Production. If a resource appears to have been particularly important, demand for it will constitute a strong stimulus for investing a larger portion of surplus in the Means of Interaction and enlarging the distance that can be covered.

A last horizon is constituted by the fuzzy outer edge of the **Information Net** (Chase-Dunn & Hall 1997). Here, there is no exchange of surplus as interaction is only indirect, i.e. mediated by some other community. Each of the categories so far described includes within it all the others with a lower distance rank. So for instance, for two communities placed at a distance level corresponding to the Political/Military Net will probably have, together with diplomatic relationships, an exchange in prestige goods although, naturally enough, exceptions are possible.

The role of Material Culture.

A fundamental consequence of the concepts of Means and Relations of Interaction is that interaction always entails some form of resource investment and a related pay-off, either social or economic. It is possible, therefore, to propose that every kind of interaction can be theoretically considered as an exchange, an exchange in which some capital is invested (Pauketat 1997: 2). This feature is of immense importance in respect to the analysis of the archaeological remains, as although we are not equipped to see directly past actions entailed by interaction, we still have access to some of the remains of capital, that is, the material culture that archaeological investigations recover.

These material remains bear clues regarding the nature of the Relations of Interaction between entities that interact. Indeed, when a society is relatively stronger in Relations of Interaction, then some of its cultural traits will be imitated in relatively weaker communities with which they establish interaction. This is because the adoption of such traits signals to the rest of society that *does not* take part in interaction, the closeness of local partners (often corresponding with local elites) with their powerful 'associates'. In the intra-societal domain, this process of imitation between different classes has been highlighted by many scholars and a number of different explanations coming from different theoretical standpoints have been advanced in order to explain it.⁷ What happens between two different societies is not substantially different from what happens within one, the only thing that actually changes being the classes involved in this process (i.e. not those created by Relations of Production, but those shaped by Relations of Interaction). Quite predictably, if external relationships are critical to the maintenance of a dominant position in Relations of Production, then it is possible to argue that, lacking any form of restriction, these exogenous cultural traits will be employed in processes of competition for political and/or social power, ultimately percolating downward to a large sector of the population (Figure 1.2.3).

So far I referred generically to 'cultural traits' but of course these 'traits', are very often embodied in material cultural items that are used in communities' lives. Objects bearing these exogenous traits (be they actual imports or more or less precise imitations) were therefore used as *cultural diacritics* expressing what has been defined as *salient affiliation* (Schortman 1989) between the two different interacting groups. From this it can be argued that the larger the quantity and the range of material cultural features and/or items acquired/adopted/imitated from one area to the other, the stronger is the position of the society which is emulated in Relations of Interaction. This process of 'influence' does not limit itself to the copying of a few objects, and actually material culture can mediate deep processes of social emulation. Indeed if material culture is "matter transformed by social

⁷ This notion is the basis of Thorsten Veblen's *Leisure Class Theory*, see Veblen 1949; in evolutionary terms it has recently been called 'prestige' cultural transmission; see Plourde 2009.

practices and productive labour into cultural objects, be it a product for immediate consumption, a tool or a work of art” (Shanks & Tilley 1987: 130), then it is clear that as interaction always entails an exchange of capital in some form, so it always entails also an exchange of social practices. This is even more apparent if we consider the ‘personal’ nature of economic transactions in pre-modern societies previously highlighted (Gregory 1982). Of course, these social practices and the social relations entailed by them will not produce relevant social effects, remaining so to speak ‘inactive’, as long as there are not the right conditions in internal Relations of Production (i.e. a local chief, normally, will not build for himself a royal palace as long as its role is not institutionalized in a way similar to that of a Great King, although forms of ideological mystification are also possible). If these comparable conditions *do* exist, then it is likely that these social practices will become more socially significant, although unsurprisingly, at the end of this process they will not produce identical results in any two different societies.

Networks

What has been presented so far concerns the working of interaction between only two individual societies. However, when interaction occurs among many communities things may change dramatically. In this change, the relative position and topological relations between societies involved in interaction acquire noteworthy importance. The relative weakness of societies in Relations of Interaction (i.e. their ability only to accept or refuse interaction) is strongly counteracted if they are involved in a large number of relations. This indeed allows the introduction of new resources from a variety of origins as long as interaction is not replaced with complete military conquest or political assimilation (in which case what we refer to as Relations of Interaction will become internal Relations of Production).

Apart from having a high number of interactions in absolute terms, the other element that is able to change Relations of Interaction is a strategic position (spatial, political or social) in relation to some extremely valued and restricted resource or resources. Societies that are placed in these favourable positions can

therefore enjoy a considerable advantage and very often will manage to increase their level of capital accumulation and therefore the amount of resources available for improving their Means of Interaction. Overall therefore, possessing a wide number of links and/or being well placed among certain chains of links (what in archaeological literature is often referred to as “routes”) can be the means of improving the positioning of one society in Relations of Interaction. These considerations are not entirely new and indeed echo some of the notions of centrality in applications of Graph Theory and Social Network Theory. These insights have been also used in archaeology in a variety of ways in at least the last two decades, often producing unexpected new perspectives on old problems (i.e. Broodbank 2000; Irwin 1978; Knappett et al. 2008; Peregrine 1991). Nevertheless, Graph Theory represents only a tool whose utility is determined by its overall theoretical frame (intended here in terms of high level theory), able to provide a reliable picture of the ‘functioning’ of interaction. Interaction in the southern Adriatic at various stages presented both the features previously highlighted, i.e. a plurality of links and a strategic position in routes leading to resource rich Europe). As a consequence of this, network analysis appears as useful tool and will be adopted in the following discussion (see in particular Chapter 3), although within a general framework provided by the relational materialist theory of interaction described so far.

Mediterranean Bronze Age Modes of Interaction

The range of relationships described so far constitutes the conceptual structure of the approach that will be adopted throughout the study. However, the first step in order to put some flesh on this skeleton will be that of assessing which Modes of Production were likely to be expressed in societies interacting around the southern Adriatic. In this way it will be possible to see how these Modes of Production resulted in different possible Modes of Interaction.

It is time to introduce the protagonists of this analysis, that is the societies that interacted around the southern Adriatic during the second half of the 2nd

millennium BC. The aim at this point is just to present the main characteristics of these entities in the period during which the volume of interaction was peaking (corresponding approximately to LH IIIB-C early), bearing in mind that, of course, they will play quite different roles through time. It is possible to identify these main actors in the Aegean world, the Albano-Epirus area Apulia in southern Italy.

To an extent, the Aegean world, being placed beyond the limits of the study area, will represent an 'external' actor, albeit an extremely important one. It is possible to characterize the Minoan/Mycenaean heartland as belonging to what Wolf would have defined as a Tributary Mode of Production (encapsulating what in Marxian terms are both the Asiatic and the Feudal Modes of Production, see Wolf 1997: 79-88). As is well known, the Minoan/Mycenaean world was organized in a number of relatively small polities, which, with the possible exclusion of monopalatial Knossos, never achieved political unity over vast territories. Although many aspects are far from being certain, it seems that these kingdoms drew the surpluses necessary to the functioning of their political and military structures from tribute coming from their territories (De Fidio 1992; Killen 2008: 160, 1985: 250-254; Whitelaw 2001). It is extremely probable that the means used by the institutionalised elites of the Mycenaean palaces in order to extract surplus were primarily political/military, although occasionally forms of economic agreement may have been in place (Bennet 1985; Halstead 2001, 2011). Putting aside the internal functioning of redistribution, an aspect that overall is of relatively little interest here, the important feature of the Mycenaean Tributary Mode of Production with respect to the relationships with the southern Adriatic is the existence of long range organised movements of goods. This is a feature embedded in the very functioning of the mode, as in the overwhelming majority of cases ethnographically and historically attested, surplus accumulated by the elite is not immediately consumed locally but circulated widely in commercial and political networks (Wolf 1997: 82). This movement of goods, however, was not among the range of activities that was closely controlled by palatial administration or, if it was, very little trace of this has been preserved in the surviving Linear B record. Movement of goods is therefore primarily attested by the archaeological

record and, as will be seen, will constitute the main focus of this analysis (see Chapter 3 and Killen 2008: 162; Sherratt 2001; Sherratt & Sherratt 1991).

Excluding the Aegean 'exception', however, all the other societies interacting around the southern Adriatic can be usefully described as being Kin Ordered. According to Wolf (1997), Kin Ordered Modes of Production are those that structure Relations of Production in communities where kinship represents the principal social relation. The notion of a Kin Ordered Mode of Production is admittedly somewhat problematic. The problem stems from the fact that, as noted by Rowlands (1998: 150-151), references to kinship are ubiquitous in societies pertaining to many other Modes of Production. The crucial difference, however, resides in the institutionalisation of other social relations as the predominant one, typical of the Tributary Mode of Production and not of Kin Ordered societies (i.e. Friedman & Rowlands 1977 in which Tributary Modes of Production are defined 'Asiatic' states using the traditional label). Furthermore, the term 'kin' itself does not explain the functioning of this institution in social terms. 'Kinship' may actually mask quite refined forms of labour exploitation, and consanguinity, which is often considered a key feature, may not have been that important if compared with co-residence (Wolf 1997: 88-96). Overall, the reasons for considering societies facing the southern Adriatic sea as Kin Ordered reside more in the lack of any hint suggesting the relevance of social relations of a different nature rather than in any positive consideration. Indeed, lacking any direct written evidence, it is possible to make inferences about the social structures of these communities only on the basis of their physical remains. As they are often organized in villages of relatively limited dimension (in Italy they range from 1-6 ha with an average of approximately 3 ha) populated by a few hundreds of people (e.g. Cazzella & Moscoloni [1999, 2001], suggest a population of 200 for Protoapennine Coppa Nevigata), and as ethnographically this spatial extent is recorded for simple, small scale communities for which kin ties represent the dominant social relation (Earle 2002; Johnson & Earle 2000; Service 1971), then it is argued that probably everyday life in prehistoric villages of the southern Adriatic was organized equally in this way.

If these two models are able to schematically represent the basic characteristics of societies interacting around the southern Adriatic, they are not sufficient alone to enlighten the nature of interaction as well as its consequences. As mentioned above, a further feature needs to be taken into consideration, namely space. However, it is important to stress again that space is not a universal category but, rather, needs to be contextualized. Such an aim can be achieved by putting it into relation with what is known regarding Relations of Interaction, that is if societies analysed possessed technologies able to enhance their communication capabilities (i.e. sailing or the use of pack animals), and if their social context enabled people to make full use of the opportunities offered by those technologies (i.e. if it was socially accepted to invest a large amount of capital for instance to equip a ship for long distance journeys). Using the spatial nets defined above it will be possible to suggest how space and distances have affected the social dimensions of interaction. In order to accomplish this task, however, it will first be necessary to briefly describe the physical characteristics of the lands and the sea branches constituting the stage on which interaction was enacted.

Chapter 2.

The southern Adriatic: social geography, history of studies and prelude to Late Bronze Age interaction

2.1 The southern Adriatic: sea, lands and Means of Interaction.

Adrias Kolpos

In the 3rd century BC, the geographer Eratosthenes, who spent most of his life in the cosmopolitan court of Hellenistic Alexandria, was still convinced (*Strabo I,15*) that close to its northern end the Adriatic Sea was connected with the *Pontus Euxinus* and that this waterway connection corresponded to the route of the mythical voyage of Jason and the Argonauts. A similar perspective was reported by the coeval poet Apollonius Rhodius who, in his *Argonautica*, considers the Adriatic as the sea of *Cronos*, a deity who in the classical world represented the remote north and the west (see Coppola 2002). While we can assume that Apollonius' statement was somehow affected by his being an archaizing Hellenistic poet, asserting that Eratosthenes, the renowned geographer, was purposefully 'playing' the ignorant remains less easy to argue. The same (low) level of knowledge of the Adriatic waters was demonstrated in a much earlier timeframe by the so-called Pseudo Scylax, author of a fairly detailed nautical treatise. This *periplous* of the whole Mediterranean Sea is normally quite accurate in reporting distances between various harbours in terms of days of travel. However, only a handful of landfalls are recorded in the Adriatic Sea and the spacing between them is often not stated.

All these traditions reveal to us that even in an extremely late time frame, when most of the Mediterranean was characterised by a degree of cultural

commonality (a condition that, some argue, appears to be more limitedly met also during the Late Bronze Age), despite hosting a number of recent Greek colonies, the Adriatic Sea was still perceived, from an Aegean and eastern Mediterranean point of view, as a place that was not very well known, a sort of northern *terra incognita*, where mythical events were set.

This is due to the fact that the Adriatic indeed is (excluding the Black Sea) the northernmost branch of the Mediterranean sea, representing an almost vertical waterway which, ranging from the 40°16'N parallel on the strait of Otranto to the 45°47'N parallel at Monfalcone, links the centre of the *Mare Nostrum* with the heart of Europe.⁸ The sea is also characterised by the continuous flow of large quantities of freshwater from the rivers on the coast (the most notable of which is the Po). Extreme latitudinal differences and flow of fresh water resulted in a surface temperature that has an average difference of about 10 degrees from north to south, making the Adriatic at the same time a warm and, particularly in its northern part, when the *bora* (see below) strikes violently, a cold sea (Cushman-Roisin et al. 2010; Poulain 2001).

It is perhaps useful at this point to break the 'fictitious' oceanographic unity of the Adriatic and to start to make sense of this sea as a composite entity. The overall basin is made up of three different seas corresponding to the three bathymetric partitions that can be recognized. These are namely the Venice Gulf, the shallow north-westernmost end of the sea, the relatively deep Middle Adriatic Pit, starting from Ancona on the Italian shores and reaching the outcrop of the Gargano promontory, and finally the southern Adriatic, defined by the abysmal depression of the Southern Adriatic Pit. This last, roughly round segment of the basin, represents the entryway to the Adriatic and constitutes the main focus of this study.

⁸ It is not a coincidence that for many centuries Friuli Venezia Giulia, the northernmost region of Italy facing the Adriatic, was also German speaking, being remarkably influenced by Central European culture.

Seascape and its effects on maritime connectivity.

Ancient perceptions of the southern Adriatic were substantially different from that of the Adriatic as a whole. Indeed the southern limit of the southern Adriatic was the *Ionion kolpos*. Again Strabo (*II, 20*), in particular with reference to the southern Italian shores, reminds us that the Adriatic and Ionian were essentially the same sea. Furthermore, throughout most of the Archaic period, the southern Adriatic was also known with the same name, *Ionion kolpos*, as the Ionian gulf (Coppola 2002; Rossignoli 2004: 304-305). The southern Adriatic was therefore perceived, at least in ancient times but perhaps also before,⁹ as being somewhat closer at hand than the remote *Adrias kolpos*, a liminal zone between the known and the unknown. Whether or not the southern Adriatic was, from an Aegean/eastern Mediterranean perspective, less isolated than its northerly counterpart in a Bronze Age timeframe, this is less easily demonstrable. Undoubtedly, as will be seen, the archaeological record strongly hints toward this conclusion for at least the Late Bronze Age (Chapter 5).

In order to have a more reliable assessment of the cultural geography and perception of this sea in the Middle and Late Bronze Age, it will be useful to consider three main aspects. The first is eminently 'environmental' and is constituted by the physical characteristics of this sea; the second and the third instead are inherently anthropogenic and concern features such as the particular kind of technologies available to those who frequented this sea as well as their social contexts (what I have overall defined as Means of Interaction in the previous chapter).

As far as the first point is concerned, as has been suggested, the southern Adriatic sea represents a rather coherent entity, the access to which was gained through the Strait of Otranto, a narrow passage (measuring overall 72 km) between Apulia and Albania. Both the northern and the southern limit of the

⁹ To this extent, it is again not a matter of chance that Odysseus, the quintessential Greek sailor, came from Ithaca, one of the Ionian Islands.

southern Adriatic are marked by islands of various sizes (the Tremiti and the Adriatic islands on the north, and the northern-westernmost of the Ionian islands on the south), which at different points in time were used as a bridge between the main land masses to the east and west. This usage was also favoured by the main current circulation patterns in the basin that run anti-clockwise, presenting strong seasonal differences. In particular, according to the measurements over a period of 10 years, the period going from the summer to the autumn is when currents are more vigorous (Figure 2.1.1; Poulain 2001).

Superficial circulation is, however, only one aspect and indeed others are necessary in order to fully assess connectivity in the southern Adriatic. Winds are also key features, particularly in this small basin in direct contact with the open central Mediterranean. The main winds occurring here are the south-eastern *sirocco*, the eastern *bora* and the northern *etesian* (comparable to the Greek *meltemi*, see Cushman-Roisin et al. 2010:45-50). All these winds are present in the southern Adriatic with different intensities throughout the year. The *bora*, for instance, being the product of masses of air from the continent penetrating through passages in the Balkan mountains, tends to be a rather localized cold wind which blows predominantly during the cool months, being stronger on the eastern shores and losing its intensity in the open sea. Although the *bora* is more vigorous in the upper part of the Adriatic, even in the south it can still be considered a very intense and to some extent unpredictable wind, which blows violently for very short periods. The *sirocco*, on the contrary, is a warm and moist sea-wind that originates from Africa, occurring homogeneously all the year round. Although not as strong as the *bora*, the *sirocco* can reach a noteworthy power and is characterized by relatively long gale-events averaging 10-12 hours with a maximum of 36 hours. The *sirocco* is therefore, as far as sailing is concerned, much more 'reliable' and constant than the *bora*. Finally the *etesian* winds are almost exclusively present in the lower Adriatic basin where they represent more than 50% of summer winds (Cushman-Roisin et al. 2010: 49), thus contributing consistently to sailing activity also in prehistoric and ancient times (but see below). For all these winds, the strait of Otranto acts as a gigantic Venturi tube concentrating air currents coming from

the north as well as from the south. As a result, even a relatively mild wind such as the sirocco exiting from the strait can counter the main southward superficial current (Cushman-Roisin et al. 2010: 79, 94).

As far as landfall is concerned, there seem to be major differences between the east and the west shores of the Adriatic. On the west landfall is overall quite friendly, offering a number of locations able to provide shelter (Mediterranean Pilot III 2005: 477-502; Snodgrass 2000). This is not equally true on the east where, after Kerkyra and Butrint, there are very few possibilities for docking (Figure 2.1.2; see Mediterranean Pilot III 2005: 170). The difficulties entailed in finding shelter on the eastern shore of the southern Adriatic are also exacerbated by the irregular blowing of strong Bora-events, which, as mentioned, are stronger on this side of the sea (Mediterranean Pilot III 2005:175). Even the area north of the mouth of the river Vjosa, around the ancient Greek colony of Apollonia and further north until the Bay of Kotor in Montenegro, which appears nowadays as a large coastal plain, had actually in the past a very different, much less welcoming aspect. Much of this area has been heavily transformed through the centuries by the cumulative land-forming action of the numerous rivers flowing on this side of the southern Adriatic following, a geomorphological dynamic similar to that encountered in nearby Mediterranean regions (i.e. the mouth of the Acheron River in Epirus, see Besonen 1997; Fouache 2002; Vita-Finzi 1969). As a result, it is very likely that the coastline in the Bronze age was fundamentally different from the present, as this would have probably comprised only a narrow strip of land beyond the feet of the mountains (Foauche 2002: 19) with a considerable influence not only on landfall, but also, more broadly, on human settlement. Similar land-forming phenomena are also known on the western shore (i.e. Caldara et al. 2003; Gravina et al. 2005), but are more limited in extent. This is because here most of the water circulated beneath the surface, being involved in karstic phenomena, often becoming available to human use in proximity to the coast and thus favouring human settlement (Finocchi & Corbella 1978: 17; Selleri et al. 2002). The overall picture offered by the physical features of the sea and its interface with the land suggest much easier access to the western coast of the southern Adriatic if

compared with that of the east which was probably relatively oriented inward toward the Balkans rather than outward toward the sea, with the sole possible exception of the southern tip of Dalmatia that, with its archipelagos, appears more oriented towards the sea.

With respect to the seafaring technologies available to people interacting in the southern Adriatic Sea in the Bronze Age, as well as the importance they had in their various social contexts, the level of documentation available, unfortunately, is enormously uneven. Much can be said on seafaring in the Aegean, but far less is known with respect of societies inhabiting the regions facing the southern Adriatic.

The documentation regarding technological aspects of seafaring in southern Adriatic societies during the Late Bronze Age appears extremely limited, comprising only a few indirect clues. It is possible to count, on the Italian side, a couple of unpublished ship representations, both coming from the same site (Roca in southern Apulia). The first was discovered in a much later (dating from the Archaic period to Late Antiquity) cave sanctuary and shows sails and full rigging. A Bronze Age date has been suggested by Pagliara and Guglielmino (pers. comm.), but such attribution presents a number of problems.¹⁰ The second was engraved in a block of the Late Bronze Age fortifications and shows only the stern of a boat. The shape of the hull is not really legible, since too little of the vessel is preserved (see Figure 5.1.35). In the broader central Mediterranean the corpus of boat depictions encompassed a limited number of representations from Malta where it seems possible to identify the presence of Cycladic-like long boats pertaining to the 3rd temple period and possible Early Bronze Age canoes incised on a vessel from Filicudi (Broodbank 2010; Martinelli et al. 2010, fig. 15; for dubious ship graffiti

¹⁰The cave has been frequented since the early Archaic period up to Late Antiquity. The cult practice attested there entailed the engraving of texts and occasionally of simple drawings (bull's heads and double axes are well attested). The walls are literally filled by an intricate web of graffiti and texts in Messapic, Greek and Latin (Guglielmino & Pagliara 2004). There are a number of ships on the walls of the Grotta although only one is at all likely to date back to the Bronze Age. This is because its position is very low and the walls have been filled up with inscriptions through the passing of centuries on the basis of ease of access with the lower being normally earlier and the higher being later. Additionally, the ship is also quite isolated from the rest of the signs having around it mainly double axes. Considering the closeness of Roca, a Bronze Age date is therefore possible albeit not sure.

from Monte Grande in Sicily, see Chapter 4). It seems difficult, however, to postulate a widespread presence of this means of transportation in the whole central Mediterranean since, as convincingly shown by Broodbank (2000), they seem to be strongly related to peculiar social and material conditions (e.g. insularity, maintaining external links as an absolute necessity in order to cope with strict environmental limitations) that seem to be met only at selected locations in the southern Adriatic. This is the case perhaps of the group of archipelagos (Sušac, Palagruža, Tremiti) normally referred to as the Adriatic islands, which frame the northern boundary of the southern Adriatic sea and constitute a privileged bridge between the two shores of the sea, that is between the protruding Gargano mountain (itself an island during the Paleocene) and the Dalmatian coast with the southernmost extension of the Croatian archipelago (Forenbaher 2009).

As for the Italian side, the only thing that is possible to assert with some certainty is that, given the propensity for settling in coastal locations at least from the Protoapennine (i.e. Cazzella & Moscoloni 1998), it seems reasonable to suggest at the very least a good level of knowledge of the sea and its resources (particularly those connected with coastal exploitation, such as molluscs), and as a consequence some level of seafaring activity.

The picture offered by the eastern Mediterranean evidence is very different because by the beginning of the 2nd millennium BC, sailing, a technology arguably unknown to the west, was fairly widespread not only in the Egyptian-Levantine area, but also more specifically in the area connected with the Adriatic, that is the Aegean. This is attested by several different classes of evidence such as boat representations on different media (ranging from pottery to clay tablets to seals) and wrecks (see Wachsmann 2008; Wedde 1991; Vavouranakis 2011). From a purely technical view, one obvious consequence is that the advent of sailing and its gradual spread throughout the Mediterranean is likely to have produced the drastic shrinkage of distances, allowing paths of interaction that would have been previously inconceivable (the same four days travel that allowed a paddled longboat to reach Crete from the middle of the Cyclades was enough for a sailing

ship to reach Egypt: Broodbank 2000: 345). Sailing ships, however, are not all similar and although some early sources such as Homer report the indiscriminate use of the same ship for any purpose, actually it is very likely that there were at least two main 'models' of ship circulating around the Mediterranean in a Late Bronze Age time frame (Casson 1991; Morrison 1981; Wedde 1991). The first, the heavily manned long ship, heir of a tradition which ultimately derived from Early Cycladic longboats (Broodbank 2000), was frequently depicted on pictorial Mycenaean pottery (i.e. Dakoronia 1990). It was endowed with a large number of rowers and was probably used primarily for military aims (Casson 1991: 27-30). The second is the merchant's round ship, exemplified by Late Bronze Age wrecks such as those of Uluburun, had a smaller number of rowers in order to gain as much space as possible for the cargo, and was almost surely dedicated only to the movement of goods (Gould 2000).

It is necessary at this point to stress that sailing in late prehistoric and ancient times entailed a number of fundamental limitations, which were highlighted by early Greek writers such as Hesiod (*Hes. Op.* 618-94; see also Casson 1995: 270-278; Rosen 1990). However, on a practical level, the picture of Adriatic seafaring should not be too much influenced by these technical aspects since, as has been made clear above, the variety of winds blowing in the southern Adriatic would have allowed sailors the possibility to reach pretty much any destination in the area in a relatively short amount of time. In addition, it should be noted that the only crossing really needed for navigating in the southern Adriatic is the strait of Otranto which, although relatively difficult, is short enough not to create any real challenge even to sailors not accustomed to the open sea.¹¹ The only limitation to ancient seafaring, which is still widely considered important, is the sailing season. Despite the recent suggestion that the cool season did not constitute an insurmountable limit to sailing activity (Tammuz 2005), it is nevertheless true that there *are* plenty of historical sources which suggest, directly and indirectly, the general validity of this view (Casson 1995; Linder 1979). At a broader exegetical level, other scholars have also pointed out the ideological underpinnings which

¹¹The strait of Otranto should be easily crossed in less than one day according to calculations for ancient ships proposed by Casson (Casson 1951).

informed Hesiod's work, suggesting that perhaps his restricted vision of overseas trade and maritime activity was a literary 'pose' motivated by the moral requirements of the cultural background of his audience (Sherratt & Sherratt 1998).

This consideration leads us to the last aspect which is necessary to take into consideration in order to assess the Means of Interaction of societies interacting in the Adriatic, the social perception of seafaring and overseas trade. In a recent article, Broodbank (2010) analyses the broader social implications of maritime activity in the Mediterranean area. A fundamental variable among those identified is constituted by the different levels of capital intensiveness required by different kinds of seafaring. This recognizes two different thresholds that have been passed in the history of seafaring in the Mediterranean. The first corresponded to the use of longboats, which increased the range of possible connection significantly, but required a large number of rowers to be effectively used. The second was the introduction of sailing, which shrunk enormously the size of the Mediterranean, but entailed substantial investments. In the first stage, occurring around the 3rd millennium BC, we are therefore dealing with human capital, that is, directly exploited labour. As has been mentioned (and will be further discussed in this chapter) there are some hints regarding the presence of longboats or similar large paddle-propelled vessels in the southern Adriatic Sea during the Cetina period (see below and Broodbank 2010; Cazzella 2003). The advent of sailing, instead, is more difficult to date, although its final diffusion on a Mediterranean-wide scale can be safely placed around the turn of the second millennium BC (Broodbank 2010). It is important to consider that, without taking into account the relative cargo, equipping a sailing ship entailed a qualitatively different form of investment than recruiting a crew for a large paddled craft. Indeed, it required large amounts of capital to be put in advance into the construction of the craft itself, particularly for acquiring raw materials that were not necessarily readily available locally.¹² This means that in order to access sailing, a society would have needed in advance sufficient concentrations of surplus that were likely to take the form of various

¹² This is the case of the well-known Aleppo pines, which were widely traded in the ancient eastern Mediterranean for the purpose of building ships.

kind of goods rather than simply manpower. From this follows the broad chronological correlation between the increase of social complexity (or better in my view, of capital accumulation) and the diffusion of sailing noted by Broodbank (2010) and, in this respect, it is probably true that the capital intensiveness of sailing craft constituted a sort of threshold.

It has been suggested in the previous chapter that mercantile (often seaborne) activity was a very common characteristic of Tributary Modes of Production such as the Minoan/Mycenaean polities. Considering also the inherently sea-bound distribution of much of the traded material, it can be reasonably said that probably sailing played an important role within Aegean societies. There are some hints in the Linear B record relating to a possible direct palatial involvement in seafaring (i.e. rowers from Pylos; see Palaima 1991; Wachsmann 1999) but, overall, the written record from the Aegean regarding this topic is remarkably poor. The picture that is possible to infer from the observation of coeval tributary societies in the ancient Near East, however, is much more detailed. At Ugarit, for instance, there is clear evidence that seaborne trade was practised in three different forms, namely with the direct involvement of states, by private individuals without the direct involvement of the King, and with a mixed system which entailed a joint venture between merchants and the King (Linder 1979: 33-35, Monroe 2009: 270-272; although even private merchants were considered “men of the king”, that is royal dependants and not “free men”; see Heltzer 1978: 123; Liverani 2003: 120; *contra* Monroe 2009: 267-8; Schloen 2001: 208). In the Hittite empire instead much of the commercial activity, and above all that which was seaborne, was in the hands of foreign intermediaries (primarily from the city Ura) which acted as agents of the Great King and, as such, enjoyed particular protection (Bryce 2002: 87-97).

Whether or not Aegean overseas trade constituted an articulated sector of the economy, either in the palace or the private sector, in the same way as in the aforementioned examples, it is impossible to say purely on the basis of the Linear B record. S. Sherratt (1999) suggested that sea-bound trade of particular classes of

materials (namely pottery) was conducted alongside the royal gift exchange of prestige goods and raw materials. She further suggested that pottery and its contents (the chief evidence of interaction in the Adriatic) were traded directly by merchants and sailors bypassing the control of palatial authority. This suggestion was based on the fact that royal gift exchange, as reported in documents such as the Amarna Letters (see Moran 1992), never entailed low-value items such as pottery. The model is undoubtedly attractive, although in the absence of any direct 'palatial' record concerning maritime trade, it can be regarded only as tentative.

Landscapes and overland movement

Albeit the sea itself is of critical importance in defining the scope of this study, this does not need to imply that forms of connectivity other than seaborne did not play critical roles in shaping human interaction in the Adriatic region. Indeed, it seems almost superfluous to stress the importance of overland movement, since we are all bipedal terrestrial animals and this constituted the most ancient and natural way of moving for any human society. This is not to assert an *a priori* primacy of land over sea, but rather to stress that any assessment of interaction, particularly at the short and medium range, cannot avoid considering terrestrial movement. Again, as with maritime connectivity, it will be necessary to discuss this topic following three main issues: 1) the physical space that was crossed in all its facets, 2) the 'tools' that were available to Adriatic societies in order to cross this space (i.e. various kinds of traction and pack animals), an aspect which is indissolubly and deeply interwoven with 3) the social significance that terrestrial mobility had in our particular contexts. I will discuss these issues without taking into consideration modern national boundaries, trying to emphasize the wider commonalities triggered by similar environmental backgrounds that it is possible to recognize throughout the region.

Although, as previously highlighted, the southern Adriatic, as a sea, can be considered in some sense as a coherent unity, this is not equally valid for the lands around it as regions facing this body of water encompassed a large variety of terrains. A first major difference that needs to be recognized is between the eastern and the western shore of the sea. The east indeed, is dominated by a rather rugged profile (more than 40% of the area of Albania is mountainous), constituted by the south-westernmost outlying outcrop of the Balkan mountains, with the Dinaric Alps in the north and the Pindus in the south (see Bërxfholi & Qiriazzi 1986; Kabo & Nasi 1990). The Gargano in the north is the only mountainous formation on the Italian side of the southern Adriatic, a 1000 m high mountain that rises above an otherwise almost completely flat coastline. Other minor elevations are attested also in Apulia (the Murge area in the centre and the Serre in the south) but they are not nearly comparable to the Gargano or to the mountains of the Balkan side. It can be safely asserted that elevated areas constituted an important aspect of the Adriatic landscape and probably affected in a crucial way interaction. This is particularly true for Albania where the territory (and particularly that of the interior) can be easily broken down into a mosaic of river valleys of various sizes. In the Albanian case, however, variability does not merely represent a scenic property of the landscape, but rather underlies important environmental differences that were probably thoroughly exploited by local prehistoric populations. Indeed, recent geo-archaeological investigations, although limited in scope to only one of these valleys (the Devoll river valley which is, however, one of the most important as far as the Bronze Age archaeological record is concerned), have demonstrated that the geological variability resulting from tectonic dynamics provided inhabitants of the area with a variety of different soils available for different kinds of agricultural exploitation (Fouache 2002: 26-28). Lowland and plains are also predominant landscape features in the southern Adriatic region. These indeed, as has been noted, characterized the overwhelming majority of the Italian side, namely of Apulia, which is a large low-lying calcareous platform (Ricchetti & Pieri 1999).

As for flora and vegetation, during the Bronze Age differences between the

mountainous and low areas are likely to have been present, although perhaps less substantial than they appear today. Pollen analyses from Albania (Fouache 2002: 31-42) and Croatia (Jahns & Van den Bogaard 1998), in agreement with the current situation, reveal that the territory was thoroughly covered by deep forest. Similar data available for Apulia (Caroli & Caldara 2007; Di Rita & Magri 2009) indicate instead extensive de-forestation during the first half of the 2nd millennium BC. Other kinds of paleo-environmental studies (based on charcoal remains from archaeological deposits), however, suggest at least that forest species such as oaks were widely available to people living in Bronze Age settlements on the southern Adriatic coast of Italy, with some fluctuations in the range of species attested toward the spectrum of the typical Mediterranean *maquis* (see Blondel et al. 2010: 112-120; Fiorentino 1998: 210-213, 2010). Wooded areas were therefore distributed also in coastal areas of Apulia and this seems to be confirmed also by the incidence of deer bones in faunal assemblages (De Grossi-Mazzorin 2010; Wilkens 1998).

A last important biome typical of the southern Adriatic region is marshland (Horden & Purcell 2000: 186-190), both in direct contact with the sea, such as the wide lagoon once extending from the mouth of the Candelaro to the Ofanto river near the Gargano (see Boenzi et al. 1991), and in inland positions such as the area around the site of Maliq in Albania (Fouache 2002). The potential of these environments in terms of the range of resources available has probably greatly encouraged human exploitation since at least Neolithic times.¹³ In the case of coastal locations, it is possible to argue that an appealing factor was constituted also by the nutritional value embedded in resources such as molluscs, which in the Bronze Age will also be used for non-alimentary purposes (Cazzella et al. 2005).

The environmental patchwork that it is possible to recognize in the southern Adriatic area probably constituted a powerful trigger for human interactions. Indeed the complementarity of various economic resources available

¹³ Sherratt (1980; 1997: 87) long ago noted that areas rich in superficial waters, such as marshes, offered a much more favourable environment for early agricultural practices than dry areas but this model has been recently criticised (e.g. Roberts & Rosen 2009).

in these different zones is likely to have produced a broad range of exchanges, as suggested by Horden and Purcell (2000: 220-224). Additionally, as far as mountains and valleys are concerned, it must be stressed that living in these locations often entailed the obligation to undertake short-range mobility connected with animal husbandry and herding. Indeed, as the few animal bone assemblages available for Bronze Age Albania reveal, this kind of practice were widespread in those areas (Gardeisen et al. 2002; Prendi 1982). The importance of animal-related activities seems to be confirmed also by the attestation in some of the very few Albanian settlements dating to the Bronze Age, of structures interpreted as large animal fences (Bejko 1994: 108-9). In Bronze age settlements close to the Gargano, such as Coppa Nevigata, species suitable for herding are attested since the Neolithic (Bökönyi & Siracusano 1987; Siracusano 1991, 1993), thus suggesting the existence, at least by the Bronze Age, of a deep knowledge of animal husbandry and of the exploitation of secondary products Barker 2005: 57; Halstead & Isaakidou 2011; Sherratt 1983; Wilkens 1998: 230).¹⁴

Overland movements in the southern Adriatic were probably facilitated, at least occasionally, by the use of animals. Some suitable species such as the horse are indeed attested in faunal assemblages from Italy by the Copper age and their relative frequency seems to increase considerably in the Middle Bronze Age (De Grossi-Mazzorin 1992; De Grossi-Mazzorin & Santella 2006). These animals were probably not used for food but rather for traction or for riding (although regarding this last activity, we do not possess iconographic evidence until the Iron Age, i.e. on the Daunian Stele; see De Grossi-Mazzorin et al. 1998: 87; Nava 1988). The most unambiguous evidence related to horse-riding has been provided by some recent analyses effected on a human remains from Toppo Daguzzo in western Basilicata, which revealed the existence of stress compatible with such activities (Canci 1998). In Albania, even if horses are not as clearly attested in the Bronze Age faunal record (i.e. at Sovjan, see Gardeisen et al. 2002), riding figures are depicted on a rocky mountainside close to the Bronze Age site of Tren. Although their date is still very

¹⁴ Woolgathering is perhaps hinted at Middle Bronze Age Coppa Nevigata by a high adult mortality for sheep/goat (Siracusano 1991, fig. 2). However in the light of more recent criticism (e.g. Halstead & Isaakidou 2011: 64-5), such trends need to be intended as merely indicative.

much debated, a 3rd-2nd millennium BC chronology seems plausible (Figure 2.1.3; see Coles & Harding 1979: 44; Korkuti 2008: 80-91). Horses need not be considered as the only available option for Bronze Age inhabitants of the Adriatic region as traction animals, as oxen may have constituted a feasible alternative. The remains of cattle are widely attested and, occasionally, this animal seems to have been charged with symbolic significance.¹⁵ Finally, among traction animals, the donkey deserves undoubtedly special attention. It has a long history in Egypt and the Near East, but is not local to the Adriatic lands, and is first attested in the central Mediterranean in the faunal assemblage of Coppa Nevigata only in the Late Bronze Age. Its introduction, occurring at a time when long-range interaction was well attested, is likely to have been related to contact with the Aegean world (Bökönyi & Siracusano 1987; Clutton-Brock 1987: 122-127).

Lastly, taking into consideration the social significance of overland interaction, there are some fundamental remarks that need to be made. First, it is possible to note a fundamental qualitative difference from maritime interaction. While seaborne movement can be effective over any distance, it is arguable that the same does not apply to terrestrial movement, which is extremely time-consuming over the long-range. On the positive side, however, moving over land for a relatively short distance as well as at a slow pace, does not necessarily require the same amount of capital investment as sea-related activities and it is something that can be made by pretty much any healthy member or group within a community. It is therefore arguable that overland mobility was the preferred choice for the short and medium range (sections 3.1, 3.5), being crucial for carrying out frequent off-site activities. These can be those related to exchange of primary foodstuffs at relatively short distances, as well as more socially embedded forms of economic and social transactions, such as those related to gift giving and dowry payments between relatively close communities.

¹⁵In the central tumulus of Pazhok in the Devoll river valley, for instance, a skull and large parts of the skeleton of a bovine have been found in the filling of the central grave among whose grave goods is an Aegean sword and a Vapheio cup. Although it is still possible, as suggested recently by Papadopoulos (2006), that material for the mounds was redeposited from settlements, it appears overall more credible in the light of the size of this kind of remains, to consider those bones as some sort of additional offering for the dead rather than debris casually incorporated in the mound (Coles & Harding 1979: 445; see also Chapter 5 for similar evidence from Roca).

2.2 History of studies: Is the Adriatic a minor route?

The history of studies of the regions facing the southern Adriatic mirrors quite straightforwardly the difference between the modern areas that it is composed of, as well as the unevenness of the level of exploration of each. A first obvious consideration is that so far the two main regions facing the southern Adriatic have normally been considered separately, with very few attempts to look at them comparatively (Bietti Sestieri 2003; Cazzella & Moscoloni 1995; Covič 1983; Govedarica 1989; Onnis 2008, 2008a; Sueref 1985, 1989, 2002; Recchia 2002, 2010). Their study belonged (and still belongs) within two completely different traditions, a dichotomy also exacerbated by modern political and historical contingencies such as, for instance, the uncomfortable memory of Italian colonial enterprises in Albania at the beginning of the 20th century AD or the fact that the two sides of the sea, throughout the Cold War, were aligned with two different political blocs.

In general terms, although the strategic importance of the Adriatic sea as a channel of communication between the Mediterranean and Europe was well acknowledged, from the earliest comprehensive studies up to more recent overviews of the Late Bronze Age, the Adriatic area has been regularly (and unduly) characterized as a minor 'route'. This was due primarily to the lack of exploration as well as to the dearth of sites that were thoroughly published, two features that have slowly changed in the last decades.

The few analyses dealing holistically with the southern Adriatic consist mostly of synthetic overviews of the different patterns of consumption of Mycenaean materials attested in the two areas, with occasional reference to mythology and later literary sources, but little attention to the environmental setting or the impact that interactions had on local societies (Onnis 2008; Sueref 1985, 1989, 2002). As a consequence, recent analyses such as that by Onnis (2008: 249), which laments the lack of archaeological sites on the Albanian coast in the

Middle Bronze Age (roughly corresponding to the end of the middle of the 2nd millennium BC), do not take into account that the coastline of Albania was probably further inland than today (Fouache 2002). Other large surveys by Harding (1984) and Bouzek (1985) have treated the southern Adriatic, but this region was analysed in the wider context of the overall relations between Mycenaean Greece and Europe (and also Anatolia in the case of Bouzek). Both works dedicate much attention to the archaeological record of the southern Adriatic and are accurate as far as typological comparisons are concerned, making much use of distribution maps. Whilst Bouzek eventually interprets the patterns recognized in the material record more traditionally, as the result of small-scale movements of people, Harding adopted a more sophisticated theoretical approach that acknowledged the multiform and potentially complex nature of human interactions. More importantly, he identified the characteristics of the societies involved in interaction as a crucial variable, a consideration that, as stated in the previous chapter, also guides this analysis.¹⁶

A very limited number of analyses escape the focus on Aegean-type products, concentrating on the distribution of similar stylistic features on local pottery during the Bronze Age (Cazzella & Moscoloni 1995; Covič 1983; Govedarica 1989; Recchia 2002, 2010). Their chronological scope, however, is much larger than that of this analysis (often including also the Early Bronze Age) and the conclusions they reach do not transcend the recognition of generic similarities within the pottery repertoire of the two shores of the sea. Hypotheses advanced in these studies will be discussed in section 2.3 and 4.3.

Excluding this limited number of broad brush comparative analyses, the study of interaction in the southern Adriatic has mainly followed the east-west disciplinary division. As a consequence, it will be necessary to discuss the history of studies in the two areas separately, eventually highlighting common achievements and misconceptions.

¹⁶Yet albeit starting from this important acknowledgement, Harding, at least in this work (Harding 1984), did not manage to fully draw the wider social implications of the dynamics of interaction studied. Harding discusses this aspect in some of his subsequent studies which, however, are much less concerned with the southern Adriatic region (see Harding 2000).

Starting from the eastern side, it is essential to note the overall dearth of archaeological publications dealing with general aspects of the Bronze Age record, i.e. those not concerned only with the description of the record from one site. There are some exceptions, but among them, the theme of external relations does not figure as one of the main features. This was partially the result of a generally 'autarchic' cultural climate typical of the period before the fall of the communist regime for which the celebration of 'identity' as a primordial element was of utmost importance (Veseli 2006). So for instance, in some of the most readily available overviews of Albanian prehistory (Prendi 1977, 1982, 1995) the issue of external relations was only fleetingly treated without considering their possible social implications (this is a little more developed in more recent analysis; see Lera et al. 2009; Prendi 2002). Foreign scholars (Hammond 1967: 346–363; Kilian 1985) seem to have been a little more interested in the theme of interaction which was normally interpreted, again, as the result of the movement of people on different scales and for different purposes (folk movements, manpower, movement of contingents of mercenaries).

A more attentive attitude toward the societal dynamics entailed by interaction was demonstrated by the younger generation of Albanian researchers such as Bejko (1993, 1994, 2009) who tried to delve more into the issue of cultural contact and its social significance. Bejko, indeed, discussing evidence from southern Albania, identified the role of Mycenaean pottery as a precious exotic, suggesting also that the contact with the Aegean world had a role in the social development of late prehistoric Albanian society. Focusing on burial practices in the same area, in a later work Bejko (1999: 178–179) suggested that although exchange remained limited, "economic opportunity [...] generated more wealth differentiation between common members and those who took control over the exchange networks" (a similar point is made also by Lera and Touchais [2007] discussing evidence from the site of Sovjan). This did not result, however, according to Bejko, in processes of institutionalization of status in Albanian communities. Finally, the evidence (only one sherd!) for Aegean-type material in

Croatia has been recently reviewed by Tomas (2005), who suggests indirect contact mediated by southern Italy.

Moving to the Italian shore, since the second half of the last century there has been plenty of work dealing with interaction in the Late Bronze Age. This interest was supported by the amount of archaeological exploration in the area during previous decades, which subsequently made available to scholars a relatively large body of material (Bettelli 2002).¹⁷ Normally, however, the Adriatic area was treated jointly with the whole of southern Italy. This is because for a great part of the last century most of the archaeologists working in the region were trained as classicists, and trans-Adriatic interaction was often studied, in a rather teleological perspective, as the precursor of Greek colonization, a conceptual framework that was to last for long in the literature. Predictably, because of the level of available knowledge concerning Mycenaean pottery in Greece as well as in the wider eastern Mediterranean, the attention of scholars was primarily focused on this class of material. As a consequence, the study of interaction in the area by and large came to coincide with the study of Mycenaean pottery. The earliest treatment of this topic is Taylour's (1958) pioneering work. The level of exploration of the southern Adriatic at the time of this study, however, was extremely limited, thus preventing Taylour from giving the area much consideration.¹⁸ Presenting the material from a number of key southern Italian sites known at the time, Taylour interpreted the evidence as revealing the patterns of commercial expansion and the retreat of 'Mycenaeans' towards the west (Taylour 1958: 181-190). Already at this early stage of research, Taylour suggested local production for part of this pottery, hypothesizing at the same time the existence of Mycenaean colonies, for instance, at the important site of Scoglio del Tonno. The existence of Mycenaean colonies was also endorsed by Biancofiore (1967), whose study featured some of the earliest chemical analyses on Mycenaean pottery from the area and stressed the eastern Aegean connections

¹⁷Dated to this period are Quagliati's investigation of Scoglio del Tonno, the important site on the Ionian sea, Mosso's excavation at Coppa Nevigata and at a slightly later period Baumgartel's research at Manaccora (see Baumgartel 1951; Mosso 1908; Quagliati 1900).

¹⁸The only evidence close to the Adriatic discussed by Taylour was a couple of LH IIIA stirrup jars found at Oria without any information regarding their depositional contexts; see Taylour 1958 :169.

recognisable in the evidence (some of which were later confirmed by provenance analyses; see Vagnetti et al. 2009: 177-8).

As the level of exploration increased in the later 20th century, more fine-grained archaeological analyses became possible. Vagnetti (1982) was able to present an overview of Aegean-type material found in Italy, producing for the first time distribution maps specific to each period, a feature that allowed diachronic comparison of the spatial patterning of the evidence. Again, due to the increase in the amount of evidence available, the possibility emerged to distinguish between sites that differed in importance with respect to Mycenaean interaction. Some sites after extensive research revealed only a limited amount of Aegean-type pottery (such as, for instance, Luni sul Mignone in central Italy; see Östenberg 1967) while others, even if hastily explored, yielded extensive amounts, documenting a privileged relationship with the Aegean and the broader eastern Mediterranean (above all Scoglio del Tonno, but also, to a more limited extent, Thapsos; see Alberti 2006; Fisher 1988; Taylour 1958; Van Wijngaarden 2002).

In terms of field research, the 1980s and the 1990s have been characterized by investigations carried out in the Sybaris area and in particular at the site of Broglio di Trebisacce. The important results revealed by this Calabrian site, which became one of the key contexts for the Bronze and Iron Ages of southern Italy (Peroni & Trucco 1994; Peroni & Vanzetti 1998), were to keep the focus of Italian proto-historians¹⁹ on the western Ionian Sea, neglecting to a large extent the southern Adriatic, whose only site subjected to extensive excavations during this period was Coppa Nevigata (Cassano et al. 1987). Therefore, despite the increase of general understanding, a full appreciation of interaction in the southern Adriatic was elusive and was severely hampered by the relative lack of exploration (particularly of the southern part of the area), and by the apparent lack of

¹⁹ In Italian, the term Proto-history (and derivations), as an intermediate step between prehistory and history, refers traditionally to the Bronze and Iron Ages. The rationale behind this use is that, since in the same period in the Near East writing had already appeared, contemporary societies in Europe should be defined not as pre-historic but as proto-historic (see Bietti Sestieri 2010: CD 4-6) In this study, however, following the English convention, the term prehistory (intended in its broadest possible meaning, encompassing any period before the local advent of writing) will be preferred.

important sites such as those attested on the Aeolian islands as well as in the Ionian arc. This lacuna was not filled until recent times with the appearance of the first results regarding Roca (Guglielmino 1996, 2004; Pagliara et al. 2007, 2008). This problem is reflected in one of the few exhaustive works dealing with Mycenaean pottery in Apulia (Fisher 1988, in which the similarities between local Mycenaean pottery and products from Achaea is noted for the first time, but that, again, is primarily based on evidence from the Ionian side, above all from Scoglio del Tonno). In the 1980s and the 1990s, together with Jones, Vagnetti initiated an important (and still ongoing) research project whose aim was to obtain the first systematic provenance analyses of Mycenaean pottery found in the central Mediterranean. According to these analyses, a large portion of this class of material was shown to be locally made, thus fundamentally confirming Taylour's prophetic view (Jones et al. 2005; Vagnetti & Jones 1986, 1991; Vagnetti 1999). This fact led to a radical shift in the terminology adopted, and through the last decade the term Mycenaean pottery has been generally replaced by the term 'Aegean-type' (e.g. Vianello 2005).

All of the approaches described so far would be defined in the English-speaking world as non-theoretical, albeit actually their underlying framework was inspired by functionalism, attributing a driving role to the quest of metal as an explanation for long-range contacts in the central Mediterranean. Furthermore, since in general terms the interest of scholars was mainly catalysed by Aegean-type pottery, issues relating to the social impact of interaction, which could have been addressed only via a comparative contextual assessment of different classes of evidence, were largely overlooked.

There are, however, some relevant exceptions to this general trend. Predictably, most came from scholars trained not as Aegean archaeologists but as Italian prehistorians. For instance, already in the 1960s, Peroni (1969) tried to highlight issues relating to social change brought about by interaction with the Aegean, aided by a theoretical framework inspired by Marxism that was curiously close to later World Systems Theory, an approach that he has fiercely criticized in more recent times (i.e. Peroni in Cocchi Genick 2004: 17–20). Marazzi (1988)

instead openly adopted a core-periphery model, considering southern Italy as a periphery of the Mycenaean world. A different perspective was that of Bietti Sestieri (1988) who, avoiding world-systemic perspectives, tried to distinguish between different models of interaction in the central Mediterranean area, asserting at the same time the fundamental role of local communities in the process of interaction. This is undoubtedly a crucial point that has been further stressed by Smith (1987) who, in a rather modernist fashion, suggests that local southern Italian communities actively tried to engage in interaction with the Aegean world in order to improve their economic conditions (1987: 164). More recently, Bettelli (2000) developed the theme of the local role in interaction, analysing for the first time the interplay between local and Aegean-type production, albeit admittedly without fully examining the range of social consequences entailed by the patterns observed in the archaeological record. Indeed, although he was the first to clearly acknowledge the relevant role played by local imitations in the overall phenomenon of Aegean-type production, he was not able to assess the social role of imported or locally imitated materials, limiting his work to a formal typological analysis of the assemblages attested at various southern Italian locales.

This last topic (i.e. social relevance of imported/imitated materials) is instead the main focus of the work of Van Wijngaarden (2002). He suggests a feasible way to deal with this issue, namely through a trench-by-trench analysis of the contextual use of Aegean-type wares (an approach that unfortunately can only be applied to a fairly limited number of well documented contexts). Although the probable correlation with specific segments of the population is identified at various sample sites in the large study area analysed by the author (entailing also Cyprus, the Levant and Egypt) and a distinct role for imported materials is claimed, it remains somewhat unclear what this role was and how this was exercised. This is because in order to accomplish his social analysis Van Wijngaarden uses common-sensical archaeological categories such as 'elite' without problematising the internal dynamics of power within the studied communities and the role that imported materials may have played in these. In other words, he does not seem to have an explicit social model through which to explore the archaeological evidence

he examines. Furthermore, the stress on consumption as a means of addressing the archaeological issues entailed by Aegean-type products in the central Mediterranean leaves out of the equation local production which was fairly well established in most of the area of diffusion of Aegean-type materials, thus reifying a false dichotomy between consumption and production which fits our current global market situation more than prehistoric social realities.

Vianello's (2005) comprehensive survey shifts the focus back to distribution on a large scale, discussing (somewhat contradictorily) only the Italian side of the southern Adriatic area within a larger framework of analysis, which takes into consideration the whole Mediterranean west of Greece. Because of this wide geographic focus he is obliged to create sub-categories within his database of sites with Aegean-type materials. This is not without problems, as the methodology adopted has serious limitations. Vianello divides the overall region studied into a number of sub-regions (which are then analysed by the means of Pearson's index of similarity), putting in the same basket contexts that are very different in nature, i.e. tombs, settlements, ritual areas and so on. This operation would still hold some heuristic value if the category of evidence analysed was homogeneously distributed in different types of site. Unfortunately, this is not the case for Aegean-type material, as one of its main features is exactly its different use in different areas. While, for instance, in Sicily this pottery seems to be mostly attested in funerary contexts, in most of southern Italy settlement findspots prevail. As a result, it is not entirely clear if the trends identified by Vianello within the overall dataset are actually the result of real consumption patterns or simply dictated by the difference in the context of deposition of this material in different areas (not to mention the different level of archaeological exploration).

A recent article by Blake (2008) reviews once again the evidence for interaction between the Aegean world and Italy (using as a basis the figures reported by Vianello 2005), advancing a minimalist view of Aegean interaction with Italy (*sensu* Snodgrass 1991). Blake concludes that, since the overall amounts of Aegean-type material entailed are quite minute in comparison with those recorded in Cyprus or at sites on the Levantine coast such as Ugarit, the interaction

between the Minoan/Mycenaean world and Italy was probably just occasional and its consequences not significant. Although Blake's point is well discussed, it appears to be seriously weakened by the lack of consideration of the evident differences existing between the areas analysed. Indeed, it is important to acknowledge that, although the average quantities of material evidence involved in the central Mediterranean are far more limited than those attested in the eastern Mediterranean, it is true as well that the size of a site in southern Italy is normally of not more than 5 ha, whereas the tell of Ugarit on the Levantine coast measured more than 20 ha and the state which this city headed in the Late Bronze Age had an overall extent of 2000 km² (Bell 2006; Garr 1987: 34; Yon 2006: 9). The size or demographic density of the context in which imported/imitated materials are introduced is of the utmost importance as it sets a fundamental limit to the magnitude of consumption of any good. Therefore crude quantification is not necessarily an effective measure of the significance of interaction with the Aegean world in two contexts as different as the central and the eastern Mediterranean. Looking at the proportion of materials in the overall assemblages appears to be more informative revealing the relatively low percentage of imported and imitated materials in the eastern Mediterranean in comparison to local ones (e.g. about 1% at Ugarit; Bell 2005: 84; Monchambert 1983; Van Wijngaarden 2002: 39). Also Blake's argument is undermined by the existence of a fundamental exception to the overall pattern, the site of Roca in Apulia (and perhaps, originally also Scoglio del Tonno).

A recent re-assessment by Cazzella and Recchia (2009) bring up to date, two decades after the seminal analysis by Bietti Sestieri (1988), the discussion of the different trends identifiable in two of the main areas of contact with the Aegean world in the central Mediterranean. A large variety of evidence ranging from that relating to the introduction of new techniques in various spheres of production (from olive oil production, to purple dyeing, to defensive architecture) is here pulled together (see detailed discussion in sections 4.1, 4.4, 5.4). The picture to emerge from this appears to be much more varied than that based on the analysis of the ceramic record alone. Despite this undoubted merit, because this analysis is primarily a general survey, some assumptions (i.e. a supposed involvement of

Levantine seafarers in the contact with the western Mediterranean in the last part of the Bronze Age) are purely based on secondary literature and therefore left completely unevaluated. Another problem of Cazzella and Recchia's discourse resides in the lack of attention to the dynamics of social change in the Aegean world as well as the wider eastern Mediterranean during the long timeframe discussed (i.e. from the 17th to the 10th century BC) and the effect these had on interaction with the west. As a result categories such as 'Mycenaeans' and 'Levantines' are used even for periods when the 'palatial' world (be it Mycenaean or Levantine) no longer existed. Notwithstanding these limitations, Cazzella and Recchia's approach re-asserts a crucial point. The two scholars rightly stress the role of local exchange networks, reassessing the importance of connections pre-dating the bulk of the Aegean interaction in the central Mediterranean as a key element in order to understand later developments. This insight will constitute the starting point of the next section, where pre-Aegean interactions will be considered.

2.3 The prelude to Late Bronze Age interaction

Neolithic

The spread of the Neolithic way of life can be considered one of the earliest and most important forms of interaction that took place in the southern Adriatic, as well as undoubtedly one with long lasting effects. Whether neolithisation in the Adriatic (particularly of the western coast) involved a wave of advance according to the classic Cavalli-Sforza model (Ammerman & Cavalli-Sforza 1984) or whether this entailed the selective adoption of individual aspects of the 'Neolithic package' by highly adaptable late Mesolithic populations, as suggested long ago by some scholars (Barker 1981), remains to be ascertained (Malone 2003: 244). Currently, however, the first hypothesis seems to be more widely accepted, particularly in the

light of the dearth of Mesolithic evidence in southern Italy (Pessina & Tiné 2008: 29-30)

Whatever the case, the western coast and most of the eastern coast of the Adriatic sea during the 6th millennium BC were part of the same cultural milieu, corresponding to the so-called Impressed Ware horizon. Only Albania, already at this early stage, seems to present distinctive characteristics (i.e. painted pottery of the Podgorie I horizon, see Korkuti 2010; Prendi 1990),²⁰ while the south Ionian Islands such as Kerkyra represented a *trait d'union* between the Balkan-Anatolian tradition of monochrome pottery and the general pattern of the whole Adriatic area (both pottery traditions are attested in different strata at Sidari; see Guilaine 2007; Pessina & Tiné 2008: 28). Needless to say, in such a remote period we are not really talking of a culture in 'Childean' terms, as any attempt to establish the boundaries of a specific cultural area needs to recognise the extreme scarceness of the available documentation (Guilaine 2000; Tiné 2007). The networks of these Neolithic connections, as well as probably most of those of the Copper Age, were also much more loose than later Bronze Age ones, as they were probably the outcome of a series of interconnected down-the-line links (Maran 2007; C. Renfrew 1975). Despite these shortcomings, using fine-grained typological distinctions, scholars from both sides of the Adriatic have been able to identify patterns of contact that span the whole Neolithic period (i.e. Cazzella 2003; Radič 2009).

These started in the Early Neolithic, when it is possible to recognize the abundance of early impressed pottery (*Impressa di tipo arcaico* or A, see Müller 1988; S. Tiné 1983; V. Tiné 2002) on the Adriatic islands of Sušac and, to a minor extent, on Palagruža (Forenbaher 2009; Radič 2009). As suggested by Forenbaher (2008), occupation of remote Adriatic islands (in particular Palagruža, which lies some 45 km away from the closest land-mass; see Figure 2.3.1), does not make much sense in terms of the exploitation of primary agricultural resources, and the main attraction of such a location would be deep sea fishing, a capital-intensive

²⁰ The Early Neolithic of Podgorie I documents the association of painted and impressed pottery (of two different styles; see Korkuti 2010: 50, Tab 9). Radiocarbon dates from Sovjan suggest a 7th millennium start for the Albanian Neolithic, a date which is line with that of neighbouring regions to the north and south (Lera et al. 2008: 45).

activity, arguably not accessible to first Neolithic communities.²¹ As a consequence, two main options remain in order to explain the earliest archaeological record in the Adriatic Islands. The first is that their frequentation (and particularly that of Palagruža) would represent a by-product of neolithisation and community expansion in search of new land to farm. If this was the case, then, as suggested by Forenbaher (2008), the length of island occupation should be directly proportional to the amount of arable land available on each island. In support of this proposal, as regards the evidence from Palagruža, one of the smallest Adriatic islands, it is interesting to note that a) the Early Neolithic record here is very poor,²² indicating perhaps a visitation that was not prolonged in time, and b) contrary to what happened, for instance, on the less remote Sušac, there is no Middle or Late Neolithic on the island which was then left unoccupied for a few millennia.

The second hypothesis is that, already at this early stage, visitation dynamics on the Adriatic Islands were driven by the desire of Neolithic communities on the western and eastern shore of the Adriatic to engage with exchange networks. These probably entailed the exchange of high quality flint from Gargano, as well as other goods, less easily recognizable in the archaeological record. That lithics were an important component of these relations seems also to be suggested by the diffusion in Dalmatia of Campignan axes as well as of Sipontine blades (a lithic industry characterised by a pointed end and steep lateral retouch), that are distributed to sites as far away as Coppa Nevigata (in Apulia), Vela Spilia, and Sušac (in Croatia, see Radič 2009: 20). As has been seen, both hypotheses have some support and they might have actually constituted two subsequent steps within the same process that, from the earliest occasional contact, gradually led to a more frequent contact between the two shores of the southern Adriatic.

Coming back to the more general picture, another interesting commonality between the western and eastern shores of the Adriatic is represented by the early adoption of the two-wares system from the Early Neolithic (Robb 2007: 163-6),

²¹ Deep-sea fishing is perhaps attested during the Mesolithic at Franchthi cave in Greece, although such a proposal has been the subject of much debate (for an overview see Stiner & Munro 2011).

²² According to Forenbaher (2009: 80) the ephemeral nature of the Early Neolithic evidence on the island is primarily due to preservation issues.

characterized by coarse and fine wares. In our specific case, the fine ware is *Impressa C o evoluta* pottery (Tiné 1983), which has a better quality than the *arcaica* and is attested in a large area ranging from Bosnia to Apulia. A subgroup within this larger category (the so called Guandone style), has a more restricted circulation within the Adriatic region (Radič 2009; Spataro 2002).

The Middle Neolithic marks the introduction in most of the Adriatic area (with the sole exception of Albania, as we already noted) of an important technological innovation whose origin is to be sought again to the east of the Adriatic world, in areas such as Greece, where this aspect was already consolidated; namely, the beginning of production of painted pottery.

It needs to be stressed, however, that unfortunately the number of analyses of raw materials is extremely small. On this basis, local production has always been suggested for the coarse segment of Early and Middle Neolithic pottery whereas for *figulina* (i.e. fine pottery often painted in Serra d'Alto style), a regional, perhaps centralised, production has been postulated, although the size of the sample analysed is admittedly rather small (Spataro 2002, 2009). On purely stylistic grounds, Radič (2009) has suggested that many of the painted vessels identified in northern Dalmatia as well as in Bosnia were of Italian manufacture. The Apennine Ripoli style (Cremonesi 1965) is particularly relevant here, as many sherds belonging to this group (particularly boiler lids, see Cazzella 2000) have been identified in the area of the Danilo culture on the eastern coast. The same Ripoli style presents important linkages with the pottery production of phase IIa of the site of Maliq in southeastern Albania (Cazzella 1994, 2000, 2003; Radič 2009).

The beginning of the Late Neolithic marks a certain decrease in the amount of connectivity in the Adriatic area, although a generic connection can still be recognized in the attestation of grooved decoration on Piano Conte (Italy), Proto-Novokan (Dalmatia) and Maliq IIb (Albania, here already Chalcolithic, see Korkuti 2011) pottery; a specific instance of a wide phenomenon diffused through the whole Balkans (Cazzella 2003). The end of the Late Neolithic saw also the almost complete abandonment of all offshore Adriatic islands that, with the sole exception

of the Palagruža archipelago (see below), will not be occupied again until historical times (Forenbaher 2008).²³

A last piece in the puzzle of Neolithic interaction is represented by obsidian. Its introduction in the Adriatic area represents an important innovation, opening the southern Adriatic to one of the most important exchange networks of the time. According to provenance analyses, the source of the obsidian recovered in the Adriatic area (on both sides) is almost invariably Lipari (Tykot 1996, with only some episodic attestation of Sardinian obsidian; see Acquafredda & Muntoni 2008; Farr 2008, 2010), and interestingly, no Carpathian obsidian seems to travel to the other side of the Adriatic. The connection with Lipari is confirmed by the retrieval of sherds belonging to the Danilo culture on the acropolis of Lipari (Bray 1966).

All in all, Neolithic interaction seems to have been episodic and not intense and the chance of identifying individual cultural 'actors' is doomed to failure. A diffuse mutual cultural influence ranged, with different intensity, through a number of different media over a period of time some three millennia long, and corresponding to a generally limited volume of contact. This is, after all, quite understandable considering the relatively small scale of the societies involved in those interactions, which very rarely reached any considerable size. The limited size of communities, in turn, hampered the start of processes of capital accumulation and the possibility for members of such communities to invest their surplus in the improvement of Means of Interaction (see Chapter 1).

Naturally enough, there are some deviations from the pattern of small communities, such as some of the ditched sites of the Tavoliere in northern Apulia. It is estimated that the site of Passo di Corvo, which is about 28 ha, might have had a population between 180 and 330 people. However, the development of large villages such as Passo di Corvo constitute a very anomalous and relatively late exception. Most of the ditched sites of the Tavoliere, indeed, measured between 1 and 4 ha and their 'inland' nature also acted as a powerful obstacle to the

²³ In addition to the material from Palagruža, Forenbaher (2008) reports only one Bronze Age sherd at Svetac (2008: 229) and a handful from Sušac (2008: 231).

development of maritime activities²⁴ (see Figure 2.3.2 and Brown 1991; Malone 2003: 253-254). Demographic considerations aside, there are also other major factors that prevented Neolithic Adriatic societies from producing more intensive connections with the other side of the sea. The most important of these is probably the lack of a suitable maritime technology. Indeed, although undoubtedly exploiting the sea was an important part of the life of those inhabiting the coast (Farr & Robb 2005: 25-27), it is extremely likely that the only kind of vessel available to Adriatic populations was the simple canoe, not unlike the one recovered at the site of La Marmotta on the Bracciano Lake in central Italy (see Figure 2.3.2 a and Robb 2007: 267). This assertion is grounded not only in the fact that simple canoes are the simplest possible means of maritime transport, but also in the lack of any hint at this stage, either iconographical or indirect/social, pointing to the use of the more advanced long boat (see section 2.1). To this extent, considering the important role played by the natural bridge of the Adriatic islands, it is particularly fruitful to examine the map in Figure 2.3.5. The shaded circles around the Adriatic islands correspond to the distance that can be covered in one day of travel with the help of these early vessels (according to ethnographic data synthesized by Broodbank 2000: 102). Concluding safely and successfully travel from one side to the other of the Adriatic, even stopping by night at intervening islands, must have been a rather tiring and risky business, a voyage that was probably to be undertaken only exceptionally.

Chalcolithic/Early Bronze Age

The third millennium BC represents a period of considerable increase in interaction around the Adriatic area. Such a phenomenon is part of a broader pan-Mediterranean pattern that is now starting to be recognised (Broodbank 2010; Maran 2007). Coming back to the Adriatic, the important tumuli of Velika and Mala

²⁴ There are very few true coastal settlements (i.e. not cave occupations) in Neolithic Apulia (e.g. Scamuso or Coppa Navigata; see Biancofore & Coppola 1997; Cassano et al. 1987).

Gruda in the Kotor bay of Montenegro are dated to the first half of this millennium. Here among the grave finds can be recognized a number of golden spiral ornaments of Balkan type which have clear parallels in the finds of the R-graves on the Ionian island of Lefkas (Dörpfeld 1927; Primas 1996). Also a golden dagger of Anatolian type (found at Mala Gruda), suggests the existence of unprecedented long-range connections involving the exchange of new and highly symbolic categories of items, such as bodily ornaments and weapons with a strong personal connotation (Maran 2007), realized with extremely valuable raw materials. The central role of the individual in the ritual seems to be confirmed by the fact that these items were associated with single central burials within the mound (which at least in the case of Velika Gruda was certainly male, see Maran 1998: 434-5; Primas 1996: 25).²⁵

In the same period, Apulia, and particularly the southern tip of it, that is the Salento peninsula, was at the centre of a series of relations that connected the region to the other coast of the Adriatic and to the rest of southern Italy. The recent discovery of a group of tumuli around the modern village of Salve represents the earliest attestation in the region of this kind of burial, well recorded in the Balkan area. Interestingly, among the grave goods recorded at the site, many belonged to the Campanian Gaudio culture, previously unattested in this part of Italy. Together with the 'usual' inhumations, the mound contained one of the earliest examples of cremation in the central Mediterranean (Ingravallo et al. 2007, 2010). Although, as admitted by the excavators, it is difficult to assess, on the basis of such a small sample, whether the presence of more than one funerary ritual at Salve marked the existence of incipient societal differentiation, an expensive ritual such as cremation involving the investment of considerable resources in terms of fuel needed for burning the body, opens up intriguing questions regarding the nature of Copper Age societies in southern Italy.

Although important in their own terms, early Copper Age links are dwarfed

²⁵ A golden dagger has been recently found underwater off the later Bronze Age site of Torre Santa Sabina, close to Brindisi. In this case, unfortunately, the poor level of preservation of the object does not allow any secure chronological assessment although the relative geographic proximity of the Kotor Bay finds (Mala and Velika Gruda are just in front of Torre Santa Sabina on the other side of the Adriatic) suggest that an Chalcolitic/EBA date for this dagger is at least possible if not probable.

when compared to those attested during the second half of the third millennium and particularly in the last couple of centuries (Maran 2007). Indeed, as suggested by many scholars, this period is characterized by a sudden boost in the scale and intensity of interaction at a broader Mediterranean level as well as, more specifically, in the Adriatic area (Broodbank 2010). One of the main focal points of this interaction is to be placed in Croatia, in the area of the so-called Cetina culture. This archaeological complex emerged from the preceding Ljubljana background around the middle of the third millennium BC, and is connoted by its ability to partake in exchange networks in the Adriatic area. The original extent of the Cetina group is debated; either it encompassed all the eastern Adriatic coast from just south of Trieste down to northern Albania, or, as suggested by Govedarica (2006), was located only in southern Dalmatia, as well as in the immediate hinterland of that region, with finds in the northern Adriatic constituting only sporadic outliers. (Cazzella 2003; Govedarica 2006; Kaiser & Forenbaher 1999; Maran 1998; Radič 2009). Subsequent Cetina finds have been retrieved over a vast area and a 200 years period (Figure 2.3.4). According to the most widespread opinion (Forenbaher & Kaiser 1999; Rambach 2004; Recchia 2010; based on Godevarica 1989), it is tentatively possible to identify two main phases within this general pattern of contact.²⁶

The first one should correspond to the Early Cetina period (Kaiser & Forenbaher 1999), dating to the beginning of the second half of the third millennium BC, and is characterized by the distribution of bowls with internally thickened rim and incised decoration. These bowls have been recovered in a number of sites all over the Mediterranean from Troy to Emporio, to Sitagroi, and to the south, in the Peloponnese (Olympia and Lerna), although, admittedly, it is a bit incautious to load this morphological feature with too much cultural emphasis, at least with respect to the eastern Mediterranean (Cazzella et al. 2007).²⁷ The

²⁶ This phasing was originally proposed by Kozoumelis (1980) for the material from Lerna (see below) and proved unsound for that site. However, on the grounds of new finds, the system has been extended to the dating of the Cetina phenomenon abroad (Cazzella et al. 2007; Rambach 2001; Recchia 2010).

²⁷ Bowls with internally thickened rims of various kinds are, for instance, also attested in the Early Minoan I-II assemblages (i.e. Wilson 1985) and this feature seems to represent some kind of very common Eastern Mediterranean pattern which has its root in Copper Age Anatolia (Kouka 2009).

central Mediterranean, and more specifically the Adriatic (broadly intended, with more limited attestation also on Malta), constituted the main zone of interaction. Pottery belonging to the Early Cetina phase has been uncovered in many Italian sites in northern-central Apulia as well as northward in Abruzzo²⁸ (Recchia 2010: 104; see Figure 2.3.4).

In the following phase, corresponding to the Classic Cetina period (Govedarica 1989), dating to the last centuries of the third millennium BC, Cetina pottery is documented in a variety of new shapes, among which the most characteristic are one-handled beakers and pedestaled bowls. Findspots expand also to Campania (Atena Lucana near Salerno and Gricignano near Naples) as well as continental Greece (Maran 2007; Rutter 1982), although one of the core areas for these materials remains in Apulia where Cetina finds are quite abundant, encompassing both settlement (i.e. Rene di Rutigliano see Radina 1989) and burial assemblages (i.e. Laterza, Casal Sabini and others; see Figure 2.3.3 and Biancofiore 1967a, 1977; Cataldo 1996). An even wider distribution encompassing also the eastern Mediterranean from Troy to Castelluccio, is recorded for the puzzling bossed bone plaques which are associated with Cetina material in at least one context (i.e. the Casal Sabini tomb), and whose only exemplar for which we possess a radiocarbon date is from Lerna IV and is therefore to be dated to the same horizon of Classic Cetina (Cataldo 1996; Evans 1956; Maran 2007).

It has been suggested in the past that, on the eastern side, the Cetina phenomenon was balanced by the arrival of Early Bronze weapons, in particular daggers of Italian type, in Dalmatia as well as at locales as far south as Vajza in Albania (Peroni 1996: 116-8). These associations have been criticized by Della Casa (1995) according to whom Cetina is a purely Copper Age culture (i.e. it does not continue into the Early Bronze Age), characterized by a close relationship with the Bell Beaker phenomenon. Furthermore, Della Casa contests the cultural and contextual homogeneity of some of the more significant Proto/Early- and Classic Cetina assemblages, suggesting that many of them are constituted by mixed

²⁸ The existence of findspots of Cetina pottery in Abruzzo is reported by Recchia (2010) but no specific site is mentioned.

material that it has not been possible to subdivide stratigraphically. However, as suggested by Maran (2007), although the metal associations of Cetina material in Dalmatia are not particularly solid, the recent radiocarbon dates for the Lerna IV material undoubtedly confirm at least the absolute date of the material retrieved in Greece (i.e. last centuries of the 3rd millennium BC see Manning 1995: 51-73).

A possible way out for some of the problems raised by Della Casa is perhaps offered by Heyd (2007), who suggests Cetina be viewed as an eastern 'margin' (*sensu* Sherratt 1993) of the Bell Beaker phenomenon, characterized by a long duration, with a high degree of chronological and geographical variability. Indeed, not only is there a stylistic similarity between Cetina and part of the Bell Beaker repertoire, but also sparse Bell Beaker elements are attested east of their main zone in a number of sites all along Adriatic Italy from Tanaccia near Ravenna to Grotta della Trinità in Salento (Heyd 2007; Maran 1998). In Heyd's view, therefore, the closer a Cetina site is to the boundary with the Beaker area, the more its assemblage would present similarities with the Bell Beaker zone, for example in the form of the 'classic' association of two classes of lithic items, namely stone arrowheads and wrist-guards (Heyd 2007). Critical is the evidence from the Adriatic island of Palagruža. Here, Cetina finds are abundant, representing a mixture of the early and classic horizons, and are associated with a copious lithic industry encompassing a considerable amount of these two items (i.e. arrowheads and wrist-guards; see Kaiser & Forenbaher 1999). The abundance and the relative standardization of lithic artefacts (in particular of blades and bladelets), led Kaiser and Forenbaher (1999) to suggest that inhabitants of the island were taking advantage of the island's position with respect of the trans-Adriatic Cetina network, engaging in the specialised production and exchange of chert lithics.

Although this is of course possible, it is not entirely clear what the rationale would be for people from Gargano and adjacent areas, who had access to excellent flint resources, to come over to a distant rock in the middle of the Adriatic just to obtain artefacts in a raw material of a quality inferior to that of the local flint. On the other hand, if we pay attention to the general occupational pattern of the Adriatic islands, it is possible to realize that during the Cetina period, Palagruža is

the only island that reveals some activity. No architectural remains belonging to this phase have been uncovered and all the material recovered does not seem to suggest the existence of occupation. In a sense, it seems that during the Copper Age, the island was more likely to have been frequented or visited than occupied. Taking these elements all together, and considering also the nature of some of the lithic artefacts retrieved at the site, it seems more plausible to suggest that those who were frequenting the island had another (possibly more effective) way to take advantage of the privileged position of the island in the Cetina linkages. This probably entailed the use of violence towards those groups of people stopping on the island after a voyage by sea, probably lasting several days, aimed at the seizing of cargoes (i.e. obsidian, perhaps metals and a potential multitude of other materials which do not leave any archaeological trace). This hypothesis seems also to find some confirmation in the accounts of early explorers of the island which report the retrieval of a burial with a stone arrowhead stuck in the skeleton (Marchesetti as reported by Forenbaher 2009: 80). The wide chronology and the great typological variability of arrowheads found in the assemblage might suggest that this kind of raiding or 'coercive control' of the maritime space around the island was protracted for a fairly long period of time and effected, probably, by people coming from different cultural backgrounds.

Overall, the change that we have seen occurring in the patterns of interaction around the Adriatic seems to be matched by considerable modification of the societies involved in those networks. From the beginning of the period burial mounds and other capital-intensive forms of burial all over the southern Adriatic seem to suggest that communities increased the quantity of capital at their disposal. Such increased availability of resources, in turn, resulted in an increase in the amount of surplus available for the improvement of the Means of Interaction, prompting the adoption of maritime technologies that were more 'expensive' (in terms of the amount of labour needed to run them) and effective. This is possibly the case for longboats, the long paddled vessel able to contain a larger crew and cargo than a simple canoe.

The archetypical example of longboat societies in the prehistoric

Mediterranean has been identified by the work of Broodbank (1993, 2000) in the EBA Cyclades, where the existence of such maritime technology is also substantiated by relatively copious iconographical evidence. Unfortunately in the case of the Adriatic islands there is no equivalent to Early Cycladic frying pans with boat depictions (Coleman 1985; Broodbank 1989) and therefore it is possible to rely only on indirect hints.²⁹ For instance, it can be noted that the increase in the volume of the interaction between the two shores of the southern Adriatic Sea, particularly around its northern edge, is hard to explain unless we assume that longboats came into play. Indeed, from Figure 2.3.5, it can be noted that the difficulties that have been postulated for the travel from one side to the other of the Adriatic are easily overcome when we replace the maximum daily radius of 20 km of a standard canoe, with the 50km range of longboats. A longboat could have covered the overall distance separating the east from the west coast of the southern Adriatic, from Korčula (the largest island on the Croatian coast east of Sušac) to the Gargano peninsula, with just one night stop on Palagruža. It is not at all coincidental, from this perspective, that Palagruža is the only island still frequented during the Cetina timeframe (Forenbaher 2008: 236).

Broodbank (2000: 253-6) suggested also the existence of a certain correlation between the use of longboats and the development of warrior male-centred ideology in which the use and ostentation of weapons played a significant role (for a similar point more generically referred to Copper and Bronze Age Europe, see also Guilaine & Zammit 2005; Treherne 1995). Again, it is interesting to note that the existence of such an ideology on the eastern side of the southern Adriatic seems to be hinted at by the Velika Gruda golden dagger, as well as by the raid/piracy activities suggested for Palagruža during the Cetina period. At this time, the eastern side of the Adriatic seems to have been the best equipped as far as Means of Interaction are concerned. This is not only due to the specific geography of Dalmatia, where a constellation of islands of various size and tongues of land projecting into the sea, probably favoured the adoption and rapid

²⁹ Boat representations from Temple period and Tarxien cemetery in Malta (including both graffiti and a possible boat model) previously mentioned cannot be considered as representative of the situation in the Adriatic due to the great geographic distance between this area and the Maltese archipelago, although probably Cetina boats were not much different (Abell 2007: 125; Broodbank 2010; Grima 2001; Pace 2004: 72-4).

development of maritime technology, but also by the long distance links with the Aegean and inland regions of the Balkans expressed by the Cetina culture. Such linkages, in the long run, probably endowed communities and villages on the eastern side of the Adriatic with the possibility to greatly expand the range and amount of surplus gained through exchange, thus improving the dominant role of the eastern side of the Adriatic with respect of their western partners.

Therefore, contrary to what has been suggested by Cazzella and others (Cazzella 2003; Cazzella & Moscoloni 1995), the possible absence of Italian goods in the Cetina area is probably not to be connected with a supposedly 'more active role' of Italian communities in networks of interaction. On the contrary, in agreement with what has been suggested in Chapter 1, it seems more likely that this imbalance is to be explained by the static attitude of Copper/Early Bronze Age Italian communities, as well as through the lack of attractiveness of items produced by them in the eyes of people inhabiting the more connected centres within the Cetina cultural sphere.

Early to Middle Bronze Ages

From a chronological standpoint, the end of the 3rd and the beginning of the 2nd millennium BC is undoubtedly a problematic period for the Adriatic area. In Italy the cultural background during which the Cetina exchanges started corresponds to the Laterza and Cellino San Marco cultures, two archaeological phases so deeply interrelated as to be normally considered together. It is largely held that this culture (Laterza-Cellino considered as a whole) is characterised by an extremely long duration which covers the entire Copper and Bronze Age up until the first quarter of the 2nd millennium BC, when is conventionally placed the start of the Protoapennine B (Bietti Sestieri 2010; Cocchi Genick 1996; Lo Porto 1962; Peroni 1996). However, over the years, a number of elements have emerged which contrast with this traditional view. These are the attestation of Protoapennine elements among the grave goods present in the Casal Sabini tomb in association with Cetina material, and by the recognition of the Pre-Capo Graziano linkages

present in the Protoapennine assemblage of the site of Cavallino in Salento (Bietti Sestieri 2010; Cataldo 1996; Pancrazzi 1979).

A recent proposal by Cazzella (2009) offers a way out this chronological impasse by suggesting a continuation of the mature Laterza-Cellino-Cetina into the beginning of the 2nd millennium BC, which therefore coexists with an earlier start of the Protoapennine B period, which corresponds to the same chronological horizon, but will then continue until around 1500 BC, slowly developing into the mature Apennine style (see also discussion in section 3.2).

The Protoapennine period sees considerable changes in the settlement pattern. Dated to this period is the genesis of a phenomenon that is to mark profoundly the landscape of Adriatic southern Italy, namely the start and the gradual rise in popularity of fortified coastal settlements. Albeit this trend has been tentatively linked in the past to the influence of the Aegean contacts, or more broadly to the interest in engaging with exchange networks, new data are making increasingly clear that such an explanation needs a re-assessment (Cazzella 1991; Cazzella & Moscoloni 1998; Malone et al. 1994: 171-172; for additional discussion see Chapter 4).

One of these fortified settlements, namely the site of Roca on the Adriatic coast of Salento, will constitute the main case study of this research and I shall introduce it, comparing it with the rest of the Adriatic background, in the next chapter.

Chapter 3

Grounding ideas about the Adriatic

3.1 Units of analysis

It has often been assumed that the central part of the Mediterranean is somehow poorer, in terms of its archaeological record related to interaction, than its eastern counterpart. This is a myth based on a fundamental misunderstanding of the different nature of the contexts of consumption in the two areas, and the point previously made in the history of studies in relation to the distribution of Aegean-type pottery (see section 2.2) has also more general validity.

As ascertained through the brief overview of the pre-Late Bronze Age phases just presented, the archaeological record of the Adriatic is substantial and diverse, a sea in its own right. In order to metaphorically navigate through this sea, and to explore how interaction shaped social change, it will be necessary to select an adequate framework of analysis that will assess how interaction worked at the various scales at which it took place through time. The focus will be always on the possible interplay between traces of interaction and social dynamics, in the attempt to highlight the functioning of the basic processes and relationships identified previously (see section 1.3).

Three crucial spatial levels, which are also by large consistent with the three spheres of distance/ease of communication suggested in the first chapter, have been identified. In the following chapters, these different levels: the **Individual Community**, the **Small-scale Network**, and the **Wider Mediterranean Context** (see Figure 3.1.1-2), will be analysed in isolation and in their mutual relations, through the various periods in which this research is articulated. The correspondence between the conceptual spheres and the

geographical scales to be analysed is not always perfect (e.g. bulk goods can occasionally travel over relatively long distances) and, indeed, this need to be considered as a general tendency. Also, it is necessary to remember that the notion of space they underlie is not a standard 'geometric' one and, as a result, the boundary of each of the spheres identified are necessarily fuzzy and critically influenced by a number of different factors that I will try to highlight during the discussion. The only sphere that will be not considered in the same systematic fashion is the one related to what I have termed the Bulk Goods Net. Indeed, because of its very nature as a network relating to the movement of cumbersome goods, un-packaged, hard to subdivide and redistribute (e.g. crops), the Bulk Goods Net rarely leaves traces in the archaeological domain. Naturally enough this is not to say that containers arguably used for containing and transporting crops are unattested in the archaeological record. The main issue resides in the ability to identify them as they are: a) rarely specialised as those destined for other products (i.e. oil or wine) particularly in the Late Bronze Age, b) often re-used, c) very often realised in perishable material not recovered by excavation. The frequent lack of suitable archaeological evidence does not mean that the Bulk Goods Net is not important from a social and economic point of view and, therefore, the discussion in the following chapters will include references to the possible dynamics entailed by bulk goods exchange (i.e. see discussion on wheel-made pithoi in 6.4).

At each of the spatial steps identified (the Individual Community, the Small-scale Network, and the Wider Mediterranean Context), with the obvious exclusion of the first one (which deals with dynamics internal to the settlement), the main unit of analysis considered will be the individual site (Figure 3.1.1). Taking the individual community as the building block of the analysis will allow us to bypass issues engendered by the use (and often abuse) of arbitrary partitions such as cultural groupings (see Shennan 1989). At the level of the study of inter-societal interaction, cultures are problematic as they are likely to project in the prehistoric past fictitious boundaries which very often become so embedded into the archaeological discourse to be virtually invisible to archaeologists (Shennan 1989). This, in turn, triggers the creation of meta-historical narratives often characterized

by anachronistic dynamics, typical of later historical times (e.g. mass invasions, thalassocracies, colonies and so on).

3.2 Why pottery?

Before moving to an assessment of the first of the various levels of analysis, it will be necessary to briefly discuss the rationale behind some of the choices made with respect of the selection of the evidence to be analysed. Although the whole material record of the southern Adriatic region will be taken into consideration, the main focus will be on pottery. There are several reasons for this choice.

At a merely pragmatic level pottery is the most abundant class of material retrieved in the area and is also much less affected by recovery and preservation biases than other categories of artefacts, such as metalwork, which in the Late Bronze Age was thoroughly re-melted and re-cycled, very rarely ending up in the archaeological record. In addition, pottery is probably the archaeological material in the region with (at least as far as the Italian side is concerned) the most solid chrono-typological framework, which allows relatively precise dating as well as the identification of regional variations. Moreover, pottery making and decorating offers endless possibilities for morphological and stylistic variability (Conkey & Hastorf 1993; Plog 1980; Wobst 1977), which can be potentially meaningfully linked to a variety of social correlates, ranging from power relations (Morgan & Whitelaw 1991) to group affiliation (Bowser 2000), gender relations (Bray 2003a), and demand-supply considerations (Berg 2007; Sherratt 1999), which are all relevant to the theoretical framework expressed.

More fundamentally, at least in the time frame studied, before the introduction of the wheel, pottery was a relatively widespread craft whose manufacture was well rooted in Bronze Age societies and that was potentially accessible to the largest possible sector of the population inhabiting communities around the southern Adriatic. As in many other areas of the Mediterranean, clays suitable for pottery production are ubiquitous in the southern Adriatic region and

relatively simple to collect and work. At the same time, however, during the period studied, this sphere of production was starting to express a level of elaboration unprecedented in the area, as attested by the introduction of a number of technological innovations such as the potter's wheel as well as dark-on-light painted wares (Levi 1999).

All these elements indicate that if we are to choose one class of material which has the highest potential for a 'bottom up' social approach to interaction, an approach that does not speak only of elites, but that at the same time does not conceal their presence — in other words an approach able to represent the whole spectrum of societies of the southern Adriatic — pottery constitutes the best possible candidate.

Finally, before addressing the details of pottery in our specific context, it is necessary to highlight that the discussion in the following chapters will focus primarily on social aspects related to pottery consumption and production but not on the technological ones, as these are beyond the scope of this study.

Different kinds of pots

Within the specific chronological and geographical limits of our discussion, pottery is a medium characterized by well-identified main categories that have been thoroughly defined and analysed by archaeologists. The introductory discussion that follows is not aimed at listing exhaustively the range of pottery classes attested in the Adriatic (and, indeed, discussing my main case study in section 3.3, other categories will be introduced) but, rather, only to briefly typify those that will play an important role within this analysis and that illustrate the range of variability within contexts of production.

The first of these categories is constituted by the traditional handmade burnished ware often labelled in Italy with the overall name of 'Impasto'. Such pottery represents the 'normal' production through the whole Adriatic area from

north to south from the end of the Neolithic, that is since the disappearance of fine, light coloured *figulina* and related painted traditions (see section 2.3). Other features are a relatively dark colour (ranging from reddish brown to dark-brown or black) and a low-fired gritty fabric, often with fairly large inclusions (up to 1-2 mm). Surface treatment is characterized by different degrees of burnishing, normally depending on the size of the vessel (small vessels being normally better finished than the large ones). It is extremely likely that, at least initially, the context of production of this category of materials was the household. This suggestion appears to be plausible on the basis of the lack any other kind of specialized atelier or similar structure in the region³⁰, as well as the relatively small and non-specialized house-ovens that were used for their firing. Possibly some of these facilities, dating to the Middle Bronze Age, have been uncovered interspersed within the area of sites (e.g. at Scalo di Furno; see Lo Porto 1986, 1990). These appear to have been rather small and simple structures, i.e. not endowed with a separate fuel chamber, and were used indiscriminately both as food ovens and as pottery kilns. It must be stressed however that, unfortunately, poor excavation and publication standards hamper any definite conclusion on the Scalo di Furno structures.

It is normally held that there is a correlation between domestic production and a primary role for women within pottery making (Vincentelli 2004). Although undoubtedly exceptions to this pattern exist, cross-cultural comparisons show that this correlation is well-grounded, at least when hand forming techniques are employed (see Carlton 2008; Vincentelli 2004; the possible implications of this proposal for Impasto pottery will be further discussed). The term domestic production has been also used in the past as a synonym of 'small in scale'. However, as noted by various critics of the monolithic nature of early evolutionary models (i.e. Van der Leeuw 1977), the fact that production is located within the house does not necessarily mean a limited production output (Costin 1991; Feinman 1999), and, in fact, small Adriatic communities produced (relative to size of population and duration of occupation) large amounts of pottery (see, for

³⁰ The identification of a possible large kiln at Punta le Terrare has been contested on the basis of physical analyses, suggesting that the structure was probably an habitation destroyed by a fire (see Laviano et al.1995; Radina 1995)

instance, the assessment of the overall Recent Bronze Age assemblage from Area IX at Roca; see Table 3.3.2 and section 5.1).

Putting aside social issues of production, from an archaeological point of view, Impasto pottery is ascribed to a series of archaeological cultures (i.e. in chronological sequence: Protoapennine B; Apennine, Subapennine and Protovillanovan) that constitute the backbone of the chronological division of the Italian Bronze Age (see Table 3.1.1 and below). One of the main domains of variation within these products resides in the incised decoration, a feature that starts in the Protoapennine, reaching a maximal popularity in the mature Apennine, disappearing completely during the Subapennine period only to re-emerge again (though with different characteristics, not only stylistic but also technological; see Levi 1999) during the Final Bronze Age. Another characteristic feature of Impasto pottery is the typical plastic decoration that is epitomized in a variety of forms, the most iconic being undoubtedly the handles surmounted by a horned head, associated primarily with open shapes and typical of the Recent Bronze Age/Subapennine.

The second of the macro categories into which Late Bronze Age Adriatic pottery can be subdivided is Aegean-type material. The critical nature of this category of wheel-thrown pottery for the study of Late Bronze Age interaction has been already highlighted in Chapter 2. From its very name, it is argued that the origin of this class of pottery is to be sought outside the Adriatic area and more specifically to the east, in the Aegean world (i.e. both on Crete and in mainland Greece). Within this larger group, the specific sub-class of fine painted wares popular in the central Mediterranean (see below), is normally referred to as Lustrous Decorated in Greece where it is the successor to a number of different Middle Helladic traditions, emerging in mainland Greece by the beginning of the Late Bronze Age (see Kiriati 2010: 685; Mountjoy 1993).³¹ Some of these styles (i.e. Matt-Painted pottery, some Minyan traditions), which survive for a certain

³¹ Lustrous-decorated Mycenaean pottery has indeed its roots in the coeval Cretan production and it is not a matter of chance that probably the first area where such style is developed is the area on Mainland Greece closest to Crete, namely Laconia (most probably at Agios Stephanos, see Kiriati 2010: 686 with bibliography; Mountjoy 1999: 19)

amount of time, disappearing completely around LH IIIA, end up occasionally in central Mediterranean assemblages (Guglielmino 2013; Sarri 2010). Specialised products, like fine wheel-thrown pithoi, are also generally put under the Aegean-type label because the complex technical know-how necessary to produce these large storage vessels (which were built up in smaller segments) is normally (and rightly) considered of Aegean origin (Christakis 1999, 2005, 2008; Guglielmino 1999; Rückl & Lis 2011). Because of their cumbersome nature, these items can more correctly be considered as static facilities than as portable artefacts and, as a consequence, they will be discussed separately from the rest of the other pottery classes.³²

As is well known, the development of Aegean-type pottery is closely connected with the rise and consolidation of Aegean polities (Mycenaean on the mainland and Minoan on Crete), the earliest states to emerge in Europe. Given this, it is understandable that discussion related to the context of production of such pottery has been, within the Aegean literature, intimately intermingled with questions of state formation and specialization. To this extent, two main trends within pottery research have recently emerged. The first asserts the fundamental change in the scale of production occurring in the Aegean with the consolidation of Mainland polities which moved from a Middle Helladic household-based production to a relatively large scale 'attached' specialization during palatial times (Nordquist 1997; Galaty 1999). On the contrary Whitelaw (2001), on the basis of various ethnographic comparisons, has argued that even the large assemblage of unpainted kylikes from the pantries of the palace of Pylos (one of the largest assemblages of Mycenaean pottery) is likely to have been the product of only 2 full time or 4 part-time potters (for a similar view see also Hruby 2006). Whatever the scale of pottery making, one aspect on which there seems to be general agreement is the specialized nature of such production, a feature that has gradually evolved in the wider Aegean world from Middle Bronze Age (i.e. see for Crete: Knappett 1999, for the Cyclades: Berg 2002). Production facilities confirm this aspect, showing

³² It is also well known that these items are very rarely traded than more portable vessels. Nevertheless exceptions do exist (i.e. in the Point Iria wreck; see Kyrou 1999), and some of them, related to the central Mediterranean will be discussed in the next chapters.

labour investment for the construction of kilns as well as, often, specialized areas in the settlement devoted to these activities.³³

If at least some information is available for the production of Aegean-type pottery in its homeland, that is, in the Aegean world, the situation is even more scanty in the central Mediterranean. Indeed, although local production was demonstrated many decades ago, until now most of what we know we know about this class of materials refers to the consumption side (see section 2.2). No kiln unequivocally related to Aegean-type pottery has been uncovered so far.³⁴ As far as pottery wasters are concerned, the site of Roca has provided small quantities that will be discussed in Chapter 5.

The same discrepancy in the level of knowledge between the Aegean and the central Mediterranean can be recognized at a more traditional archaeological level. Since the early the 20th century, the chronological and typological development of Mycenaean and Minoan pottery has been the subject of a large number of in-depth analyses that have resulted in an extremely precise articulation of phases and sub-phases constituting, together with the list of Egyptian Pharaohs, the pillar of 'traditional' absolute chronology all over the eastern and central Mediterranean area (i.e. Furumark 1941; Mountjoy 1986, 1999; Popham 1967). Although, more recently, some attempts at providing a 'regional' central Mediterranean typological framework have been put forward, the general validity of these results has been always severely hampered by the lack of thoroughly investigated contexts as well as by the small average size of assemblages recovered in the area (i.e. Bettelli 2002, where the overwhelming majority of the finds discussed come from the site of Broglio di Trebisacce alone).

The last of the main categories of pottery relevant to our discussion is Southern Italian Protogeometric pottery (henceforth SIP). As evidenced since

³³ A few kilns have been investigated in the Aegean area, among which can be counted that of Berbati (Schallin 1997), Pylos (Mountjoy 1993: 121) and Kommos (on Crete, Shaw 2001).

³⁴ The sites with simple Middle Bronze Age kilns discussed before have also yielded some Aegean-type sherds, but no pottery wasters related to this class of pottery have been found in the deposits associated with these structures (see Lo Porto 1986, 1990; for possible wasters from Roca see section 5.1).

Taylor's times (see Taylor 1958), this local fine handmade dark on light pottery developed as a hybrid class incorporating both Aegean and 'Italic' features. In fact, whilst the very use of dark on light decoration, as well as of a number of motifs borrowed from the repertoire of LH IIIC Late pottery, represent undoubtedly influences from standard Minoan/Mycenaean wares, the forming techniques, shapes and the bulk of the decoration are more clearly paralleled within the repertoire of Impasto pottery of the Protovillanovan phase (De Juliis 1977; Yntema 1990).³⁵ Very little is known about the possible context of production of SIP, as no productive facilities or wasters for this class have so far been unearthed. The chronological position of the class is instead relatively well known thanks primarily to the work of Yntema (1990). Its appearance should date to the end of the Ausonian I period in the Final Bronze Age around 1100 BC, and should continue into the earliest part of the Iron Age up until approximately 900 BC, when this style completed its gradual transformation into the Southern Italian Early Geometric.

As has been possible to see from this brief overview, the sub-categories presented so far have all fairly particular characteristics that clearly distinguish them from one another. They represent different consumption and production universes that were in continuous mutual osmosis and offer a glimpse of the complexity of phenomena of interaction occurring in the southern Adriatic during the Late Bronze Age. In the next chapters the ways in which such complexity was articulated through time will be explored following the lines explicated in the following paragraphs. However, as a preliminary to the discussion of each level of the analysis, it will be necessary to briefly address some chronological issues relating to the internal phasing of the Italian Bronze Age.

³⁵ A Cypriot influence has been suggested for this class of material by a limited number of scholars (see section 6.2) although such a hypothesis is based only on generic morphological similarities between SIP and White Shaved Cypriot pottery.

Chronological conundrums

Although chronology is often perceived (rightly or wrongly) as a rather tedious subject, it represents nevertheless a fundamental step, especially when dealing with a study area as vast and complex as that here discussed, and with a time span of some 500 years. Chronology is the tool through which it will be possible to assess the approximate contemporaneity of communities populating the southern Adriatic; its pace will dictate that of our reconstructed historical narrative. Given the main focus of this study, and due to the fact that internal partitioning of the Albanian Bronze Age is at best sketchy, the discussion will focus primarily on the western side of the Adriatic.

Italian scholars have been well aware of the importance of chrono-typology and this topic has been one of the main foci of attention since the middle of the twentieth century (Damiani 1991, 2010; Cocchi Genick 1995, 2004; Lo Porto 1964; Peroni 1959). Without wrestling with all the details of the chronological problem, starting from the initial phase here discussed, the ‘traditional’ and largely accepted version of the southern Italian Middle Bronze Age, as codified in a number of fundamental works (i.e. Cocchi Genick 1995; Peroni 1996) sees the existence of three fundamental phases (Table 3.2.1). The first two should be included within the Protoapennine culture (BM1-2, which follows the Early Bronze age, i.e. *Bronzo Antico* in Italian) with a final sub-phase (2B) of the second that should mark a transition to the Apennine (Cocchi Genick 1995; Damiani et al. 1984).³⁶

Such a view has been criticized on different grounds (both methodological and more evidence-oriented; see Bietti Sestieri 2010: 79-84; Cazzella 2009; Recchia & Ruggini 2009). A recent proposal (Recchia & Ruggini 2009: 39), based on the study of a specific area around the modern town of Cisternino near Brindisi, suggests an alternative way to deal with Middle Bronze Age Impasto assemblages, via the identification of two distinct *facies* (a term used in Italian as a synonym for

³⁶ For Cazzella and Moscoloni (1992) the transition should represent an early attestation of the Apennine culture. Putting aside the different names, the two proposals do not diverge in substantial ways from this point of view.

'culture'). The first one, the *Cavallino facies* (named after the important Protoapennine site in Salento), should represent the start of the Protoapennine according to Cazzella's (2009) proposal, corresponding roughly to the period between the 20th and 16th centuries BC. The second, the *Punta le Terrare facies* (again after a site, but this time close to modern Brindisi), should instead correspond to the late Protoapennine and early Apennine period (from the 15th to the 14th centuries BC). According to Recchia and Ruggini (2009 :33-59), some of the pottery features typical of this last phase might endure in some districts well into the subsequent Recent Bronze Age/Subapennine, thus explaining the sharp (and somewhat artificial) decrease in sites encountered during this period in their case study. Most of the sites abandoned during the Recent Bronze Age, indeed, bear traces of occupation connected with the subsequent Final Bronze and Early Iron Ages. The conclusion drawn by Recchia and Ruggini is that, at least in the Cisternino area (and perhaps also in other zones of central Apulia), this trend is the outcome of a bias in the chronological indicators selected to define Recent Bronze Age sites. Indeed, it seems that some of the classic features (mostly limited to pottery features) traditionally used to define the Subapennine culture (Damiani 2010, 1991; Peroni 1959) may not have been universally adopted throughout Apulia. In Recchia and Ruggini's view, the Subapennine should therefore function as a proper archaeological culture (even more than in the original Peroni [1959] definition), being confined in Apulia mostly to coastal settlements. The fact that coastal settlements abound during this period seems to confirm this supposition.

Given these premises, it is necessary to treat the occupational pattern of the Recent Bronze Age with extreme caution, acknowledging that the presence of Subapennine elements does indeed witness an occupation of the 13th-12th century, but that their absence does not preclude in any way the possibility that sites with late Middle Bronze Age material were still occupied at a comparable time.

The chronological positioning of the last period treated in this study, i.e. the Final Bronze Age, has also been subjected to much debate (Bartoloni & Delpino 2005; Bietti Sestieri 2008). Following the relatively recent proposal of correlation between Aegean and Italian sequences by Jung (2006), it is possible to suggest, as a

result of the stretch of the Subapennine into the 12th century, that Protovillanovan is confined to the 11th century BC (Table 3.1.1). The assumptions that such an assessment implies are the acceptance of an Aegean low chronology and of the standard starting date of Attic Protogeometric (see Deger-Jalkotzy & Bächle 2009; Jung & Weninger 2009). Any appraisal of the Final Bronze Age as a period, whatever its focus is, needs to take in consideration the relatively fast pace of the many developments occurring in the Adriatic over the span of not more than 3-4 generations.

3.3 The individual community

Now that the kind of evidence to be discussed has been presented, and the potential chronological ambiguities have been considered, it is possible to explain the different levels of analysis proposed and the way their investigation will be undertaken in practice. In the first level, corresponding to the **Individual Community**, a sample site which has been thoroughly explored and which represents the whole chronological spectrum studied will be contextually analysed. This choice will allow consideration of the internal structure of the simplest social unit recognizable in the archaeological domain at a regional level, which is the site, exploring the social premises and implications of interaction among different households/groups within the community.

Two areas of the sample site situated relatively distant from one another, to ensure that they represent different buildings, will be analysed. The aim of such an exploration is to assess how internal Relations of Production were affected by interaction through time, investigating, in particular, the contextual quantification of imported materials, assessing whether at different times imported/imitated materials were restricted or not to some specific households or areas of the settlement. This analysis can be helpful to establish whether interaction was controlled and used by a specific segment of the population to improve its position in Relations of Production.

Another aspect that will be explored is the relationship and mutual interplay between Aegean-type and local handmade materials (i.e. which shapes were used and where) trying to assess whether imported/imitated materials were restricted only to some specific functions or whether they covered the whole functional range. In this way it will be possible to glimpse the social practices behind the material record and their diffusion within the settlement.

Combining these elements with an in-depth examination of the diachronic development of the site can potentially shed light on the possible social consequences of interaction in terms of accumulation of capital, re-investment of surplus in specific sectors of the life of the community and so on. In order to have a clear idea of what this might entail it will be necessary to briefly introduce the specific case study for this analysis, that is, the site of Roca.

A case study: Roca

The fortified settlement of Roca (occasionally spelled also *Rocavecchia* or *Roca Vecchia* i.e. old Roca) is positioned on a low promontory in the Adriatic Sea and has been the object of systematic excavation since 1987. The overall extent of the promontory is at present about 3.4 ha but, because of local geology, it has been estimated that its surface has been heavily eroded in the course of the centuries. This process is still at work nowadays, resulting in a surreal scenario of small islets with medieval walls that were once part of one big fortress. Also a look at the geomorphological map of the surroundings (produced by Michele Massa on the basis of data gathered by the University of Bari) reveals that probably the site was once located at the edge of a small lagoon whose exploitation likely played an important role in favouring the early occupation of the site as well as in enhancing its potential as a landfall in later periods (see Figure 3.3.1).

One simple figure may help to understand the importance of Roca for the study of the relationship between southern Italy and the Aegean world. According to a recent estimate, the whole central Mediterranean has produced overall around

10,000 fragments of Aegean-type pottery, with half of that (about 5,000) coming from the site of Roca alone (Blake 2008).

The results of archaeological investigation at Roca have demonstrated that the earliest occupation there dates back to the Middle Bronze Age (17th century BC) and is witnessed by the erection of the imposing fortifications (measuring up to 20 m in thickness) delimiting the side of the promontory that faced the land and the lagoon. During this phase the occupation of the area seems to have been mainly organized in a series of semi-underground structures of various sizes and of uncertain function, but standard huts (as we shall see) are also present. The Middle Bronze Age phase of life at the settlement terminated (roughly in the 14th century BC) with a major fire, perhaps connected with a sacking or some other violent event. Such a reconstruction is suggested by the recovery, within the destruction levels of the fortification's gate, of a group of skeletons pertaining to seven individuals who died under the collapsed walls, one of whom was probably armed with offensive weapons of Aegean-type (see section 4.1 and Guglielmino 2003; Pagliara 2005).

The Recent Bronze Age phases (see Table 3.3.1) of the settlement featured major construction works in a substantial part of the areas investigated. Thick layers of crushed limestone are now employed as a pavement and the defensive circuit is now rebuilt with a technique very close to Aegean ashlar masonry (Pagliara et al. 2008). The overwhelming majority of the Aegean-type material recovered at the site dates to this phase and has many linkages with coeval products in Greece in terms of imitation of shapes and decoration as well as of direct imports. The context of deposition of these materials is also interesting. In particular, in Area IX it is possible to recognize a layer rich in charcoal and ashes containing a large amount of extremely well preserved Aegean-type materials, as well as partially burnt animal remains and a number of parts of animals slaughtered and deposited without consuming their meat and therefore decomposed in anatomical articulation (above all *Bos Taurus* and *Sus Scrofa*; see Guglielmino 2008; Pagliara et al. 2008). On top of this layer, in subsequent sub-phases, a series of pavements of crushed limestone were laid down, and these

were occasionally interspersed with the remains of wooden buildings and isolated postholes. Between each of these pavements, it has been possible to recognize a number of deposits that have been interpreted as occupation layers. Each of them contained a wealth of pottery, both of Aegean-type and local. Also, large quantities of other classes of archaeological materials have been recovered, among which tools and implements in bronze and horn as well as *exotica* such as hippopotamus ivory and one the very few Aegean seals (dating to LH III A2-B, Krzyszkowska pers. comm.; Iacono 2010a) found outside the Aegean (see section 5.1).

The latest part of the Late Bronze Age, namely the Final Bronze Age, is the phase that has been most extensively investigated at the settlement. Again, in this period the site is the object of major construction works. Fortifications are completely rebuilt with a different technique that entailed the use of wooden posts and stones, and the internal space of the settlement was also reorganized with the creation of stone-paved roads, running probably through the whole promontory area (Guglielmino 2003, 2006; Pagliara 2003). Large buildings were erected and some of them had a main axis measuring several tens of meters (see section 6.1). Two large metal hoards belonged to this phase of occupation. These included several bronze items that compare very well with Northern Adriatic products and disks in gold leaf comparable with objects from Delos and central Italy (Maggiulli 2006). Again, in the occupation layers pertaining to this building, Aegean-type materials are attested along with local pottery. The Final Bronze Age 2 phase is sealed by a large fire episode, which can be recognized in most of the areas explored. After the fire, the Bronze Age occupation at the site continued sporadically for some time, though never reaching the monumentality of the pre-fire chronological horizon. The site continues to be occupied also during the Early Iron Age until Hellenistic times, and is re-occupied again during the late medieval period (much of the standing architecture visible nowadays belongs to this late phase).

Sampling strategies

As the site of Roca has been the subject of continuous archaeological investigations from 1987 to the present day, and since the amount of material generated as well as the range of areas explored is extremely large it has been necessary to adopt a sampling strategy. In spatial terms, I selected two areas of the settlement that are quite distinct from each other, according to the methodological premises previously highlighted. These are Area IX and Area X (Figure 3.3.2), both located in the area immediately inside the fortification walls of the settlement, which is more protected and therefore better preserved. Regrettably, since the area explored is extensive both in extent and in depth (the whole excavation comprises 12000 features) it has not been possible so far to work out a definitive overall phasing of the settlement based on the physical sequence. However, a number of similarities have been identified on the basis of local material and this has allowed the establishment of a preliminary equivalence between the two local phasing sequences adopted for each sector (Area X phases are in Latin numerals while those of Area IX are in Arabic ones). The discussion in the following chapters will deal with the period which goes from the Middle Bronze Age 3 to the end of Final Bronze Age 2, leaving the last part of the Bronze Age, namely Final Bronze Age 3, aside, as the evidence regarding this last phase of the Bronze Age occupation of the site is too scanty to be coherently discussed. Within these two areas, I have adopted further sampling strategies with respect to different classes of material. Priority has been given to the analysis of Aegean-type material, as the abundance of this class constitutes the unique feature of Roca's assemblage. For this reason, in the analysis, Aegean-type pottery has not been subjected to any sort of further sampling, as doing so would produce a considerable loss of analytical potential.

In order to quantify and establish the variability within this assemblage, the basic unit of analysis adopted has been the 'family of sherds', that is, all the sherds belonging to the same vessel. This is one of the most widely accepted ways to deal with ceramic assemblages (particularly with wheel thrown products; see Orton et al. 1993), as it defines an entity related to actual use, i.e. the single vessel, and avoids duplicate counting for its multiple sherds. Yet, within this assemblage, this

choice is not without issue. Indeed, Roca had a very long and complex history characterized by many burnt destruction events. As a result, many of the sherds composing the assemblage were relatively fragmented, burnt or had very marked colour and hardness transformations. All these phenomena often made it extremely hard to recognize whether one sherd belonged to a specific pot or not. Given this, in order to have a better assessment of the impact of post-depositional factors, along with the definition of 'families of sherds' and absolute counts of the sherds, other means of quantification and control measures have been adopted (e.g. weighing; basic approximate length of sherds and, whether possible, i.e. with base and rim sherds, Orton's Estimated Vessel Equivalent; see Orton et al. 1993: 168-173).

With respect to Impasto ware, it must be noted that at Roca, since the earliest stage of the excavations, there has never been any sherd discard. This is particularly relevant, as it has led throughout the years to the accumulation of hundreds of thousands of Impasto pottery sherds. As a result, in the context of this research, the adoption of a further systematic sampling strategy for this particular material has been therefore necessary.

The strategy for Impasto entailed considering a more restricted area within Area IX alone, corresponding to the extension explored in two years of excavation (namely 2005 and 2006). Such a decision has undoubtedly removed the possibility to assess differences between one area and the other in terms of the consumption of Impasto wares. Nevertheless, although a certain loss of analytical potential will be inevitable, since the data coming from one area alone (i.e. Area IX) cover almost the whole sequence (the only exclusion being of Middle Bronze Age), it should be sufficient to provide enough information to address the research questions posed. Even with this restriction, the size of the Impasto sample to be analysed was definitely too large to be dealt with in detail (i.e. counting tens of thousands of sherds). This problem is exacerbated by the peculiar nature of 'Impasto' pottery, which is extremely variable and does not allow grouping by families of sherds in the absence of proper joins.

For this reason, lacking also resources for pursuing costly and time consuming conservation work on the assemblage, a simple sherd count of diagnostics (i.e. sherds for which it is possible to identify the shape), paired with weighing of fragments, has been selected as the most effective operational strategy for the Impasto pottery. Taking into consideration the peculiar post-depositional history of the material previously highlighted, in order to offer a context-specific estimation of the ratio between diagnostic and non-diagnostic sherds, an individual feature for each phase has been entirely counted and weighed, to provide a diachronic index that can be used for all features to assess approximately the whole amount of the Impasto assemblage.

General considerations on the assemblage

The assemblage of Aegean-type pottery in Areas IX and X comprised overall 2,242 families of sherds corresponding to about 4,500 sherds and an overall weight of about 67 kg. Of this, only 1,570 families came from contexts already assigned to an occupation phase and, therefore, can be analysed diachronically. These correspond, on average, to about 1.9% of the overall assemblage of Phases 1 to 6. The assemblage of Aegean-type materials included four main subclasses (Figure 3.3.3). The first one is **Lustrous Decorated** pottery, which is either identical or very close to the standard decorated Aegean pottery and can be distinguished by its light colour and lustrous painted (dark-on-light) decoration ranging in colour from dark brown to light orange (Mountjoy 1986, 1993, 1999). The second subclass is constituted by **Grey Ware**, which includes wheel thrown pottery typical of Late Bronze Age southern Italy, characterised by an extremely fine clay as well as a distinctive uniform grey or dark-reddish colour. In the past, Grey Ware has been associated by many scholars (Lo Porto 1963, 1964; Biancofiore 1967; for an overview of the problem see Guglielmino 2013) with a similar Mainland Greek pottery (in Crete this class is extremely rare before the LM period; see Girella 2007; Mountjoy 1993; Rutter 1979), and has been directly connected with products attested since Middle Helladic (Mountjoy 1993, Zerner 1993). In

southern Italy, however, Grey Wares are a relatively late phenomenon which starts in LH III A, and although an initial Aegean inspiration is probable (at least as far as forming techniques are concerned), throughout the Late Bronze Age, this kind of pottery has been characterized by strong similarities with Impasto pottery in terms of its shape repertoire, which hints at a strong 'local' component for its context of production (Belardelli 1994; Bettelli 2002: 114-5).³⁷ Smaller subsets within the overall Aegean-type assemblage include **Unpainted** pottery (which can be distinguished from Grey Ware mostly because of its buff colour), which as we shall see constitutes an important indicator at Roca (see Chapter 5), and other possible example of pottery of Middle Helladic tradition (or even imports given their chronological positioning, see Chapter 4 and Guglielmino 2013 forthcoming), such as **Brownish** or **Orange Minyan** (see next chapter for discussion).

In the whole assemblage, the Lustrous Decorated subclass represents the overwhelming majority, with 2,185 families of sherds constituting almost 98% of the total, whilst Grey Ware constitute about 1.4%, and all the other categories the remaining 1%. Within the overall group of Lustrous Decorated pottery, and in the few Unpainted vessels, it has been possible to recognize also three different fabric types:

Fine: Fine fabrics are used for any kind of shape from very small to large closed ones. They are normally quite hard fired and range in colour from buff to pink, to light orange and pale yellow-greenish. Differentiated cores are extremely rare (probably only due to misfiring). Inclusions are also rare (the clay is very clean), appear only in larger shapes and include sand and occasionally small stones (only in very large shapes). Mica is occasionally present in the clays.

Medium-coarse: Medium-coarse fabrics lie in between the Fine and Coarse categories. Normally well fired, they range in colour from orange to cream. Inclusions are present and are constituted primarily by sand, rarely accompanied

³⁷ The use of the misleading denomination 'pseudo-minyan', which implies some sort of relationship between Grey Ware and earlier Middle Helladic products, is, unfortunately, still widespread in Italy, even in relatively recent publications (i.e. Bettelli 2002).

by very small stones and occasionally by small dark stones. Mica is rarely present in the clays.

Coarse: Coarse fabric is normally used for large shapes such as large necked vessels or stirrup jars, but smaller vessels are also attested. The clay is normally not fine and their colour ranges from cream to pink to orange, often presenting a greyish core and they are generally well fired although the fabric of smaller shapes is often softer. Inclusions are normally quite large and comprise small dark rocks (up to 1-2 mm), sand and/or small stones and (possibly) crushed shells .

Fine fabrics form about 94%, whilst Medium-coarse and Coarse represent respectively almost 4% and 2% of the overall count of families of sherds of Lustrous Decorated pottery.

As for local Impasto pottery (Figure 3.3.4), although it is possible to recognize variability in terms of refinement of clays and surface treatment, this seems to be always positively correlated with shape size. Small shapes often have more refined clays and (with the sole exception of the interior of closed vessels) better-burnished surfaces. As a consequence, instead of subdividing the evidence into a number of artificial subclasses, it has been decided to consider it all together in one category.

The only exception to this rule, which has therefore been considered worth separating from the rest of the material, is **White Impasto** (Figure 3.3.4, no. 5). This is a well definable sub-group within the larger Impasto category, chronologically positioned towards the end of the Recent Bronze Age and characterised by the deliberate attempt to obtain pottery with a light/white surface, which, as we shall see, bears important information on the interaction taking place with the northern Adriatic area. The same variation, in terms of level of finishing correlated with size of shape, is recognizable within this sub-group, the only technical difference from standard Impasto pottery being a certain predilection for the use of gastropod shells as temper.

The overall sherd count of Impasto pottery diagnostics in the area sampled within Area IX is 1,475 sherds corresponding to a weight of about 50kg. With 108 sherds, White Impasto constitutes about 7% of this quantity (5% if percentage is calculated by weigh instead of sherd count).

In order to estimate the overall proportion of Aegean-type material, I have calculated the percentage of the overall Area IX occupied by the sub-sample area of Impasto pottery. Afterwards, the sherd count of Impasto diagnostics has been extrapolated accounting for non-diagnostics (using the estimation of diagnostic /non diagnostics discussed previously) and the total calculated with a simple proportion for the whole of Area IX. So for instance in Phase 1 there were 221 Impasto diagnostics which, according to the index of fragmentation of contexts belonging to this phase (16.5%), should be representative of a gross total of 1333 sherds. Hence, from this quantity, related only with the smaller area excavated during 2005-2006 (63 m², corresponding to 5% of the total Area IX, which measures 1241m²), it has been possible to estimate a theoretical assemblage of 26,260 Impasto sherds in all of Area IX. Adding the total number of sherds of Aegean-type material (841) to the estimation of the Impasto, it has been possible to calculate a grand assemblage total from which the proportion of Aegean-type material has been derived. These operations have then been repeated for each phase, since the amount of square meters explored in 2005-2006 may differ substantially (ranging from 63 m² of Phase I to 149 m² of Phase VI). Such a calculation has, naturally enough, some clear limitations in that the density of finds of Impasto material is assumed to be constant through the entire area, which is not the case, as the zone excavated in 2005-2006 had a fairly high density (both of local and of Aegean-type pottery) if compared to other part of Area IX. The proportion obtained, therefore, needs to be considered as a very conservative estimation which tells us only that the proportion of Aegean-type material could not have been inferior to the level suggested (see Table 3.3.2 and Figure 5.1.17).

3.4 Social Networks and Graph Theory

The methodology outlined so far is able to investigate the material record of the southern Adriatic at the level of the individual community, but how should we deal with other scales of analysis?

As has been suggested, a fruitful way to tackle these issues uses social networks and graph theory. The study of social networks is a stream of sociology which has been developed through the last century (Scott 2000: 8–38) and analyses human social activity by means of a branch of mathematics called graph theory. According to this perspective it is possible to represent any social relationship between one or more actors as a graph (also called sociogram) constituted by nodes linked to one another by edges. In the last thirty years graph theory and social networks have also been widely applied in archaeology to a variety of different archaeological materials as well as in the most diverse geographical regions (i.e. Broodbank 2000; Irwin 1978; Knappett et al. 2008; Peregrine 1991).

The use of graph theory and network analysis in the evaluation of archaeological data is not without problems. As suggested by Broodbank (2000: 180-183), one of the main problems is the relatively uneven nature of investigation that can potentially alter substantially the results of analyses. However, at least as far as Apulia is concerned (but this point can be extended also to other regions of southern Italy), it can safely be asserted that overall, excluding a handful of exceptions (whose uniqueness will be accounted for in the discussion), the level of investigation of this region is quite even when compared with other areas of the Mediterranean. This is due primarily to the very modes of archaeological exploration of the area. Indeed, because of the traditional overarching interest towards the remnants of later historical times, with the sole exception of a very small minority, Bronze Age sites have been often investigated comparably in

restricted test trenches.³⁸ Therefore, although we obviously do not know all Bronze Age sites in Apulia, there is no evident unevenness in the level of exploration of different parts of the region, meaning that the recovery bias should not be particularly severe.³⁹

Social networks and graph theory are potentially able to address many of the theoretical questions that have been previously advanced and can provide a powerful tool for the analysis of Relations of Interaction of southern Adriatic societies. Indeed, in the first chapter I argued for the fundamental effect of multiple links on the working of interaction. In particular, these are assumed to affect dramatically power equilibria in Relations of Interaction according to two main principles:

- The absolute number of multiple links improves a society's position in Relations of Interaction, as it suggests the number of possible interactions able to draw capital into each individual community, modifying internal Relations of Production, and as a consequence the amount of capital available to be invested for interaction.
- The particular position of certain sites along routes and paths which are extremely important, normally because they control the exploitation of sought-after resources.

These two aspects correspond almost exactly to two concepts of crucial importance for social networks, namely those of Degree Centrality and of Betweenness (Freeman 1979; Scott 2000). The first, in a purely operational point of view, is constituted by the absolute count of edges uniting one node with other nodes (Figure 3.4.1a). The idea on which this measure is based is that “as the process of communication goes on in a social network, a person who is in a

³⁸ This tendency is also exacerbated by the fact that Apulia, being part of the less developed Mezzogiorno (southern Italy), despite having a rich cultural heritage, never had much funding for archaeological research.

³⁹ In non-island contexts, the solution to the exploration bias applied by Broodbank (2000) unfortunately cannot be applied. Because of the very nature of the units of analysis adopted (i.e. island vs. individual sites) theoretical data such as random dots on a map are more difficult (if not impossible) to link in any meaningful way with real world evidence. For this reason, in the following chapters, real world data have been used as a starting point for constructing networks.

position that permits direct contact with many others should begin to see himself and be seen by those others as a major channel of information” (Freeman 1979: 219-220). The point made here by Freeman at the level of a network of individuals remains valid also at the level of interacting communities, to the extent that it is only necessary to replace the term ‘person’ with ‘community’ or ‘site’ and to add to ‘information’ also ‘capital’, in order to make the concept of Degree Centrality useful for the analysis of the southern Adriatic.

Betweenness (Figure 3.4.1b) can be defined as “the frequency with which a point falls between pairs of other points on the shortest or geodesic paths connecting them” (Freeman 1979: 221). Betweenness is based on a different rationale from Degree Centrality as it basically measures the possibility of control that one node has with respect of overall network communication. Again, it is sufficient here to use “site” instead of “node” in order to make sense of how this measure is potentially able to disclose the working of Relations of Interaction.

The use of simple Degree Centrality measures appears to be extremely useful for the assessment of the medium scale of analysis, namely that relating to what I have referred to as the small-scale network. Indeed, at this scale, lacking in the landscape outstanding obstacles to movement (i.e. major elevation, substantial rivers and similar features), direct non-mediated contact between nearby communities is likely to occur with little limitations, making Degree Centrality a powerful tool for the analysis. On the contrary, as distances increase, maritime mobility is probably the preferred choice and interaction become more ‘costly’. People directly involved are probably less in number and the high investment of capital leads them to select more attentively the nodes with which connections are to be undertaken. As a result interaction become more ‘nodal’ in nature. This is particularly true for our specific period and due to the very notion of space entailed by coastal sailing, arguably one of (if not the) main means of long-range communication (see section 2.1) of the Late Bronze Age. Coastal navigation ‘bends’ not only time, as has been already suggested (sections 1.3, 2.1), but also space, creating, similarly to organized road systems like the one depicted in the *Tabula Peutingeriana*, a geographic dimension which is topological (i.e. linear) more than

physical, and in which the number of combinations and alterations of the ‘main path’ are considerably limited. Given these features, Betweenness is likely to provide an accurate measure of centrality in interaction at the large-scale of this analysis.

Unfortunately, however, large-scale Late Bronze Age Mediterranean networks, those of the last spatial sphere of our discussion, are extremely complex, including a vast and environmentally diverse area and communities with the most disparate social and technological backgrounds. Such factors make *de facto* impossible to formalise the discussion of the large-scale in the same way as for the connections on the shorter range. The alternative would be constructing a complex abstract model with little to no relation to the original context and data. A similar attempt by Knappett and others (2008) still preserves some heuristic validity but operates on sample area much smaller than the largest one discussed in this study, corresponding only to the south-eastern Aegean.⁴⁰ However even the only variable required by the methodology of their study (i.e. site size) is simply not available for the overwhelming majority of central Mediterranean Bronze Age sites.⁴¹ Also, models like the one by Knappett and others (2008) do not account for the role of social dynamics, which are instead critical for our theoretical perspective (see section 1.3) and for which it is hard to imagine a formal codification.

On the basis of these considerations, it has therefore been decided to consider and ‘use’ Betweenness as a ‘loose’ concept rather than as a formal measure.

3.5 The Small-Scale Network

It is now time to see how it will be possible to analyse in practice the archaeological record of the southern Adriatic at the second critical scale of analysis identified, namely that of the **Small Scale Network**. Here I will take a sub-

⁴⁰ The model by Knappett and others (2008) presents some interesting methodological innovations e.g. the notion of e_{ij} as the ‘effort’ made by a site to connect with another, akin to concepts introduced in this study, i.e. our notion of Means of Interaction (see Knappett et al. 2008: 1013),

⁴¹ Bettelli (2002: 39) presents estimates for some of the main sites but these are based on the debatable assumption that Bronze Age sites occupied the whole extension of the ‘topographic’ unit in which they were located (e.g. a hilltop).

region within the larger southern Adriatic, and in particular that constituting its western shore. Considering the geographical configuration of the southern Adriatic basin, which features two land masses divided by a large body of water, this sample sub-region appears to be particularly well suited for the study of medium range connections, primarily (but not exclusively) characterized by overland movement. This stage of the analysis will involve looking at what I have termed as the Political/Military Net. As has been previously suggested, finding traces related to these aspects in the archaeological record does not represent an easy task and, indeed, attempts to identify for instance 'military events' are normally doomed to failure unless specific contextual conditions are met.

The political dimension is potentially more accessible and anthropology and ethnography teach us that the ceramic record is again potentially of great help to define this. As previously highlighted, in many pre-modern societies, women have potentially played an important role in early non-specialized pottery production. If this is the case, it looks safe to assume that in the past, similar pottery production could also have been linked to women. Consequently interaction, as witnessed in some of the features of such products, can hypothetically be meaningfully linked to their activities or their movement. Within pre-modern societies, one of the main motivations for moving was probably constituted by the change of post-marital residence resulting from exogamy. According to many scholars, exogamy appears to be regularly positively correlated with closeness and ease of communication between communities (i.e. the easier the access to other communities and the closer they are, the more likely inter-marriages will be; see Coleman & Haskey 1986; Relethford & Mielke 1994) and inversely correlated with the size of the villages (i.e. the smaller the size of the community the more exogamic the community will be; see Bintliff 2000; Fornasin & Marzona 2009; Pettener 1985; Wobst 1974, 1976), patterns that, as we shall see (section 4.1), seem to favour inter-community marriage in the small and relatively close Bronze Age communities of Apulia. Marriage, which, as suggested by anthropology (i.e. Comaroff 1980), can be rightfully considered (at least partially) a political behaviour, is potentially able to explain the circulation of some stylistic features within local pottery production, unveiling important patterns of

interaction at a small network scale. Pottery might have constituted part of the dowry of the wife or a bride-wealth payment from the husband (Goody & Tambiah 1973), or again, alternatively, features within pottery attested at several different locales may imply that, while settling in a new context, women brought with them stylistic characteristics they had learned in their natal community. Such hypotheses, albeit alluring, constitute undoubtedly only some options within a range of possible rationales beyond networks established through pottery, which may potentially range from small-scale exchange to payment of various kinds of obligations (see chapter 1). Indeed, as suggested for other contexts, it is also possible that pottery variability mirrored what was happening in other media, such as basketry (Sherratt 1997: 366) or textiles (Barber 1991, see 4.4 for examples related to the southern Adriatic).⁴²

In the next chapters, formal networks will be constructed, using as a basis the co-attestation of different ‘stylistic’ characteristics within local pottery production. The fundamental assumption on which this procedure (see section 4.2 for details) is based is that, whatever the reason lying behind the human actions producing the archaeological record, the contemporary attestation of the same pottery type at two different locales does token some sort of communication between the two communities inhabiting those sites. As a consequence of this, each artefact type co-occurring at different locales will constitute an edge in a network where sites constitute nodes.

In creating these networks, the ‘spatial’ dimension has been to some extent ‘sacrificed’ in favour of the topological one. This decision is grounded in the recognition that within a region as small as Apulia, topography does not affect too severely interaction and that the possible existence of intermediate sites not identified in the archaeological record should not change significantly the overall shape of the networks.

⁴² If the origin of the influence expressed in pottery were precious textiles, then this should be considered as evidence of interaction in the subsequent step within the spatial scale identified, in the Prestige Goods Net.

Once created, these networks will then be measured, trying to see how centrality could have influenced Relations of Interaction according to the theoretical framework previously exposed. This procedure should allow us to establish what was the level of local interconnectedness among communities populating the southern Adriatic area, before and after interaction with the Aegean world, determining whether the latter was only passively accepted by those communities or whether, on the contrary, southern Adriatic peoples actively engaged and, to some extent 'triggered', long-range connections.

3.6 The Wider Mediterranean Context.

The last level of analysis, namely the **Wider Mediterranean Context**, explores the southern Adriatic as a whole, establishing the role of the region in overall pan-Mediterranean interaction. This step of the analysis corresponds to what in the first chapter has been termed the Prestige Goods Net.

The focus is, in particular, on connections between partners that are so distant one from another as to impede the creation of common political/military bonds, and yet close enough to make interaction aimed at the procurement of a restricted number of particularly valued resources fundamental. The psychological implications of distance and the way these affect socialization between partners is a critical issue that will be explored in the next chapters (Fagan 1998; Helms 1988).

However, in practical terms, it needs to be highlighted that discussion of the Prestige Good Net has little meaning unless an effort is made to specify what can and what cannot be considered a prestige good in our specific context. In this respect, the chief evidence analysed here, pottery, will be only of limited help as there is a large number of other categories that can rightfully be considered as 'prestige', ranging from amber to ivory, to metals (especially precious ones, but not only these), to a multitude of goods which are undoubtedly prestigious and luxurious (i.e. textiles, spices and so on) but that unfortunately only rarely leave

any direct archaeological traces. The prestige-use of pottery, in particular, need to be limited to those cases where this material circulated as an item with high added value *per se*, or contained precious goods such as perfumed oil, honey or other similar produce (i.e. Haskell 1985, 2011; Vandenabeele & Olivier 1979; Vianello 2005). Because of its relative scarcity for most of the Bronze Age, Aegean-type pottery in the central Mediterranean seems to fulfil such a requirement, although this valuation cannot be taken for granted for any period.

Exploring prestige goods networks, that is, exploring the circulation of low-bulk, high-value goods, has been traditionally one of the main interests of European prehistory. As a consequence, several models have been proposed through the years to explain the working of exchange in this sphere (Friedman & Rowlands 1977; Kristiansen & Larsson 2005; Renfrew 1975; Sherratt 1993; Sherratt & Sherratt 1991). These models suggest that movement of such categories of goods can be the result of different processes.

Among these, gift exchange is undoubtedly one of the most widely known, as well as one of the most readily accepted by anthropologists as an explanation for economic transactions within pre-modern societies. According to the classic definition, the goal of gift exchange is to create and maintain a continual a state of indebtedness that binds partners involved in interaction (Godelier 1999; Mauss 1966). It is difficult to identify specific material patterns representing this kind of exchange that is normally considered, rightly or wrongly, a sort of 'default' innate choice for societies in the absence of any element hinting at different practices.

The situation is different for transactions that are more economically oriented i.e. that exhibit attention to demand/supply considerations. Their existence can be suggested in the archaeological domain by objects indicating an interest in quantification and convertibility of goods such as weights, scales or ingots (Alberti 2003; Cardarelli 2004).⁴³

⁴³ However attention to demand/supply considerations does not necessarily imply the existence of a fully fledged market economy and the relevance of objects such as weights and scales needs to be contextually assessed in order to avoid gross anachronism (Ratnagar 2003).

The phenomenon of import substitution can also be considered indicative of attention toward demand/supply, although this is much more difficult to pinpoint. Local imitation of foreign goods alone is not a sufficient condition, as the really crucial aspect is the will to replace completely original production both in scale and in the extent of the distribution, putting the original producer out of market. Local imitation of prestige goods itself can be organized according to a multitude of models ranging from specialized workshops (attached or not to the centre of power and featuring or not the presence of travelling artisans, see Galaty 1999; Muhly 2005), to less formal options such as domestic specialization, where the domestic workforce is adopted for specialized tasks (i.e. examples in Feinman 1999; Wolf 1997).

Both gift exchange and demand/supply driven transactions alike might have been framed within ritual events and/or contexts, as in the paramount anthropological example of the Kula ring (see Malinowski 1953 [1922]), which can potentially leave identifiable traces within the archaeological domain.⁴⁴

The tools through which these aspects will be investigated are those of 'traditional' archaeological enquiry; i.e. contextual examination, distribution of finds and stylistic analysis. Assessing change in these domains, through pottery as well as other media, will allow us to unveil fine-grained modifications within what has been broadly defined in the first chapter as cultural influence. These elements can in turn highlight how cultural transmission and, as a consequence, Relations of Interaction between the partners involved, changed through time.

⁴⁴ Although the Kula Ring represents beyond any doubt an example of gift exchange, subsequent research has clearly demonstrated the existence also of what has been termed here as 'economically' oriented transactions existing side by side with the main Kula exchange (Leach & Leach 1983).

Chapter 4

Early encounters

4.1 The individual community during the Middle Bronze Age

Archaeological traces of the southern Adriatic community

It is now time to consider the mode and outcomes of interaction during the earliest period covered by this study (i.e. the Middle Bronze Age; Table 4.1.1), starting at the level of the individual community. This is, as I have shown in the previous chapter, a critical level in that it allows assessment of what interaction entailed at the level of the everyday life of people inhabiting the Adriatic region in the second millennium BC. A brief discussion of settlement patterns will put the evidence from my case study into a wider background, addressing in what sense this context is exceptional and to what extent it can be considered similar to contemporary sites.⁴⁵

As outlined in Chapter 2, human settlement in the Adriatic area was already long established at the beginning of the Bronze Age. The beginning of the Middle Bronze Age phase, corresponding to the Protoapennine period (traditionally starting around 1750 BC but recently redated to 2000 BC by Cazzella, see section 2.3 and Cazzella 2009), saw the capillary infilling of the landscape of many parts of

⁴⁵ The figures discussed here, as well as in the next chapters, and presented in a synoptic table in Appendix 2, are based almost entirely on published material (with a couple of personal communications). These include sites, tombs/cemeteries, caves and hoards dating from the Protoapennine to the Protovillanovan period. The area north of the Gargano has not been considered as it constitutes a completely different region from the rest of Apulia, with remarkably different settlement dynamics, strongly linked to the exploitation of rivers and valleys (e.g. Barker 1981 for the Biferno Valley). Data coming from systematic surface investigation (particularly those presented by Recchia & Ruggini 2009 but also Recchia & Romano 2006 which possess details of various nuclei of settlement, have been incorporated with the rest of the evidence, considering all the nuclei of settlement less distant than 1 km from one another as part of the same site. Tombs/cemeteries or cave occupations that have been identified by previous research as referring to a specific nearby settlement have been considered as part of that settlement.

Apulia (Figure 4.1.1). This was probably a relatively slow process stretching for some three centuries or more. It is also quite clear that, at least in some cases, this infilling probably had its basis in previous Neolithic occupation, as for instance in some areas of the Tavoliere (Tunzi Sisto 1995), in the low plain south east of Taranto (Corrado & Ingravallo 1988) as well as, perhaps, in the coastal area north of Brindisi (Coppola 1977). There is unfortunately too little Early Bronze Age data to confirm the hypothesis of such a long-term continuity but it can be reasonably assumed that some of the areas that were de-forested during the previous millennia also represented a preferential choice for settlement during the second millennium BC.

An in-depth understanding of the mode of this occupation has become possible only recently, thanks to the new information provided by the systematic survey of a relatively well preserved part of the region, the area around Cisternino (Figure 4.1.1a), conducted by Burgers and Recchia (2009). Although partially undermined by a certain methodological indeterminacy (i.e. the decision not to adopt any explicit definition of site as well as the decision to consider as sites also pottery scatters with very low density; see Ruggini 2009), the results of such investigations have undoubtedly highlighted the existence of a dense lattice of small settlements (hamlets, arguably constituted by two or three dwellings) dispersed over the landscape.

The semi-coastal (between 5 and 10 km from the coast) and coastal (up to 5 km from the sea) areas were both slightly more densely occupied but the difference in the number of sites with the hinterland (more than 10 km inland) is minimal (see Table 4.1.2). Inland areas seem to have been particularly favoured when they were close to rivers, where site density can be relatively high (e.g. in the case of the Ofanto river in northern Apulia, on the course of which are placed about 8 Middle-Late Bronze Age sites, from Madonna del Petto, close to the coast, up to Madonna di Ripalta well inland, see Figure 4.1.1 no. 68, 142 and Radina 1992; Tunzi Sisto 1995). The slight preference for the coast might, of course, have been the product of a bias toward the study of coastal areas, which historically have been more intensively investigated, but since this situation seems to be also

confirmed for the area around Brindisi, which has been thoroughly investigated (Burgers & Recchia 2009; Burgers 1998; Coppola 1977; Yntema 1993), it seems plausible that this is a real pattern. This situation does not seem to change that much in the subsequent phase of the Middle Bronze Age, the Apennine phase, corresponding to the 14th cent BC. The only difference that can be appreciated is a decrease in the incidence of semi-coastal settlement and a relative increase of hinterland occupation (Table 4.1.2). What, according to many authors, does seem to change, is the general pattern of occupation, which sees a gradual but constant decrease in the number of sites from Protoapennine to Apennine times (Bettelli 2002; Bietti Sestieri 2010; Burgers & Recchia 2009). This trend, however, is likely to be only apparent and is a by-product of the lack of consideration by archaeologists of absolute chronology when general trends are discussed. The chance for non-contemporaneity between settlements belonging to the same phase is obviously greater in long phases than in short ones. Dividing the number of settlements for the years of estimated duration of the phase, provides a more reliable (although not as robust as statistical approaches recently suggested; see Crema et al. 2010) assessment of occupational trends. Therefore, taking into consideration the longer duration of the Protoapennine phase, about 350 years according to an Aegean low chronology (not taking into consideration Cazzella's proposal, see sections 2.3, 3.2 and Cazzella 2009) and comparing it with the century or so of the Apennine, we realize that actually occupation seem to increase in the latter period (Table 4.1.2).⁴⁶

Returning to the general model of occupation, small semi-coastal settlements, creating the lattice previously mentioned, were often aggregated in a more limited number of clusters that probably shared some resources critical for their survival (i.e. water sources and/or land for herding and farming, Cazzella

⁴⁶ In particular, according to the fairly comprehensive site catalogue presented in Appendix 2, the number of settlements per year goes from 0.25 in the Protoapennine to 0.6 in the Apennine period. In order not to distort the figures, data from recent systematic surveys (i.e. Burgers & Recchia 2009; Recchia & Romano 2006) have been omitted although, for instance, in the survey of the Celone valley in the north of the region, which uses the standard chronological subdivision adopted also here (Recchia & Romano 2006), this trend seems to be even more visible (0.02 sites per year in the Protoapennine, 0.15 in the Apennine). Naturally enough, accepting Cazzella's (2009) proposal this trend would be even more visible, since it would be necessary to divide the number of Protoapennine sites for a larger number of years.

2009; Recchia 2009a; Recchia & Ruggini 2009). Cave use, often at some distance from the settlement and aimed mostly at cultic and funerary activity, continued from the previous periods, constituting an important element of continuity (starting already in the Neolithic) within the Apulian landscape.⁴⁷

As far as the funerary domain is concerned, a very atypical form of tomb, recognised only in Apulia in the area around Trinitapoli in the north of the region, is represented by hypogea (Figure 4.1.1 no. 71, 141): large rock-cut tombs often containing several depositions frequently accompanied by precious grave goods (Tunzi Sisto 1999). Two in particular received rich grave assemblages including a large number of bronzes (in the *Ipogeo dei Bronzi*) as well as two of the earliest items in hippopotamous ivory documented in Apulia (in the *Ipogeo degli Avori*) and other precious exotica such as faience (see Bellintani 2010; Tunzi Sisto 1999: 184-222, 2010). Hypogea (which find some similarities in the multiple tomb at the nearby site of Toppo Daguzzo in Basilicata) constituted undoubtedly complex ideological and symbolic foci to which we shall return later. Another example of anomalous funerary practices is cremation cemeteries. These are completely absent in the Apulian Bronze Age, but for two exceptions in central and southern Apulia namely Pozzillo (Figure 4.1.1 no. 26; near modern Canosa, see Lo Porto 1997) and Muro Leccese (Figure 4.1.1 no. 112, in southern Salento, Maggiulli 1912), probably both dating to the Middle Bronze Age (Bettelli 2002: 143; Orlando 1995).

Extremely atypical, although not connected with the world of the dead, is also the site of Vasche Napolitane (Figure 4.1.1 no. 165), placed inside a coastal wetland near the modern salt production facilities at Santa Margherita di Savoia (Bari), not far from the hypogea of Trinitapoli. The excavators have credibly interpreted the extremely labour-demanding set of rock-cut pools and channels identified at the site as a salt production facility dating to the Middle Bronze Age.

⁴⁷ The examples of such sites discovered in the territory surveyed by Recchia and Burgers are seldom closely datable, however there are plenty of other examples from other areas in the region that confirm this trend, such as, Masseria Pasquarelli (Figure 4.1.1 no. 91 and Bettelli 2002:20), Manaccora (Figure 4.1.1 no. 130 and Baumgartel 1951; Recchia 1993; Recchia & Tunzi Sisto 2003) and Grotta della Tartaruga (near Mola di Bari, Figure 4.1.1 no. 96 and Cinquepalmi & Radina 1998: 95-99).

Vasche Napolitane constitutes the only probable example of a site with structures explicitly dedicated to specialized productive activities, although hints indicating the possible presence of such activities are also attested at other sites as in the case of purple dye production at Coppa Nevigata (Figure 4.1.1 no. 28; see below and Cazzella et al. 2005) or the mould fragments and other similar evidence retrieved at various locales in the region (i.e. Coppa Nevigata and Trinitapoli as well as crucible and slag fragments from Punta le Terrare; see Lo Porto 1998; Tunzi Sisto 1999: 158).

A further type of funerary monument, that is burial mounds endowed with central cell made up megalithic stone slabs or dolmens, is instead extremely diffused and completes the picture of occupational patterns. The dolmen is very often the only part of the funerary monument that survives and can hint at the existence of Bronze Age occupation even in the absence of other traces. All the tombs belonging to this category investigated in northern and central Apulia have revealed material dating mainly to the Middle Bronze Age (both Protoapennine and Apennine, see Cataldo 1995), whilst to the south, in Salento, the existence of the megalithic tombs of Salve dating to the third millennium BC (see Chapter 2 and Ingravallo et al. 2007, 2010) suggests for these monuments a wider range of dates from Eneolithic-Early Bronze Age to the early part of the Middle Bronze Age.

As can be argued from their distribution, for instance in the area around Giovinazzo or at the site of Fondo Lafranca (near Lecce, some 9 km inland from Roca; see Figure 4.1.1 no. 53, 47), there seems to have been a close spatial relationship between settlements and burial mounds, which perhaps worked as territorial markers, in agreement with the 'standard' explanation for megalithic monuments put forward by Renfrew long ago (see Figure 4.1.2 and Cataldo 1995; Notario & Traverso 1996; Renfrew 1973). Mounds indeed are often placed at some distance from the settlement or, as suggested by Cazzella (2009), in an intermediate strip between the coast and the semi-coastal area. This last suggestion, originally advanced in relation to northern Apulia, seems to hold true also to the south in Salento, as hinted by the intermediate position between coastal sites and the hinterland of the mounds of Specchia Artanisi (in relation to the

coastal settlement of Le Pазze near Ugento, see Figure 4.1.1 no. 63, 149 and Bianco 1980; Bietti Sestieri & Scardozzi 2010), or the dolmen in Melendugno (not far from Roca, see Figure 4.1.1 no. 41 and Orlando 1995).

Coastal settlements constitute undoubtedly key evidence for Middle and Late Bronze Age Apulia as well as, probably, the sites most thoroughly explored. As their very name suggests, coastal sites are settlements located directly on the sea or in close spatial relation to the coast. Other features that are recurrent in these sites are their longevity and the presence in the surrounds of a lagoon and of a coastline with a low profile, characteristics that favoured landfall and allowed the inhabitants to exploit the resources typical of this kind of environment (similar habitats are attested, among other sites, at Bari, Coppa Nevigata and Belvedere-Ariscianne Figure 4.1.1 no. 8, 28, 10; Caldara et al. 2003a, 2005; Radina 2010).⁴⁸ As previously mentioned, in the past, due to the lack of contextual data, the coastal sites phenomenon had appeared as a consequence of Aegean influence on Apulian communities (Lo Porto 1969: 6; Whitehouse 1973: 623). New data, however, are increasingly showing that the beginning of this phenomenon largely predates the bulk of interaction between the Aegean world and this part of the Mediterranean, which, as we shall see, attains momentum only in later times (i.e. during the Subapennine period; see below and Cazzella & Moscoloni 1998). In a recent article, Cazzella (2009) considered coastal sites as part of a general trend toward the formation of 'specialized' sites from Protoapennine times onward. The main aspect of such sites would be their inclination toward trade and exchange. However, as admitted by him, since traces of specialized production appear to be, with very few exceptions, largely absent in the region, the criteria established by Cazzella in order to define such sites are not particularly tight, being essentially limited to a long-lasting occupation (which in turn is explained in the light of a vague specialized function). Fortifications are also considered among the main distinguishable features of specialized sites and their presence is motivated, according to this theory, by the existence of endemic local warfare between

⁴⁸ The subsistence potential of wetlands for coastal sites has been often underplayed but the richness of a marshy habitat (which includes among its resources not only molluscs and shallow water seafood, but also birds and other small prey) constituted an undisputable element of attraction for early occupants of coastal sites.

communities. However such structures are present in about the 20% of Middle Bronze Age sites, and are in reality not at all limited to coastal or long lasting sites (i.e. the site of Muro Maurizio [Figure 4.1.1 no. 113] and perhaps Fondo Lafranca are short lived and endowed with fortifications, also Santa Maria di Ripalta has possibly walls; see Cremonesi 1977; Nava & Pennacchioni 1984; Notario & Traverso 1996).

Defensive walls do, however, represent a preeminent aspect of the archaeological record of Middle Bronze Age Apulia. Many of these monuments date back to the Protoapennine period, and at least in some cases (e.g. Coppa Nevigata), appear to have been characterised by a complex plan endowed with towers from the earliest building phases (Figure 4.1.3; Cazzella et al. 2010; Scarano 2010, 2012). These early phases are actually considerably earlier than Mycenaean citadels and at present their development seems to be largely due to local dynamics with little indirect external inspiration.⁴⁹ Usually, where natural barriers (i.e. cliffs or similar) were available, only the sides of the settlement that were deprived of such were defended through walls (as in the case of Madonna del Petto; see Muntoni 1995, 2010), although this incompleteness might also be the result of lack of preservation of the structures due to erosion (i.e. in the case of Masseria Chiancudda; see Cinquepalmi & Recchia 2010).

Interestingly, in the case of sites that were directly adjacent to the coast, the side that was defended was almost invariably the one toward the land, suggesting that perhaps the inland territory rather than what/who was coming from the sea was perceived as the real threat (among the others at Coppa Nevigata, Punta Manaccora, Egnazia [Figure 4.1.1 no. 45] and Roca [Figure 4.1.1 no. 35]; Biancofiore 1965; Cassano et al. 1987; Scarano 2010; Tunzi Sisto 1995).⁵⁰ In any case, this aspect need not be over-emphasized as the limitations imposed by attack strategies using small Bronze Age ship (i.e. their inability to transport in one voyage a large number of attackers, as well as the difficulties they were likely to

⁴⁹ Cazzella (2009) suggest as an 'inspirational model' for Coppa Nevigata's wall the fortifications of Kastri on Syros (Bossert 1967). That, however, being dated to the late 3rd millennium BC, is admittedly too early to constitute a feasible parallel.

⁵⁰ It is of course necessary to bear in mind the possible existence of phenomena of coastal erosion such as those described at Roca (see section 3.3).

encounter approaching the land in a zone not endowed with a beach) may, in any case, have prevented direct offensive from the sea, making the defence of the side on the sea *de facto* worthless.

A variety of building techniques were adopted, often in the same site, for the construction of fortifications, ranging from medium-sized dry stone masonry, to the use of large megalithic orthostats as main load-supporting elements, to the adoption of small regular slabs of rock in order to make more regular facades (at Masseria Chiancudda, Roca and Coppa Navigata; see Figure 4.1.4 and Cazzella et al. 2010; Cinquepalmi & Recchia 2010; Scarano 2011). At least the first two of these techniques were also used in contemporary structures in Bronze Age Apulia, namely burial mounds with megalithic chambers, thus reinforcing the impression that defensive walls were essentially the outcome of a fundamentally endogenous process (for well preserved examples of mounds with megalithic cells, explored recently, see Bietti Sestieri & Scardozzi 2010). Similarities between burial mounds and walls, however, are not confined to the technical sphere.

Indeed, although purely military considerations might have represented the main rationale for their construction, it is important to acknowledge that, similarly to burial mounds, fortifications obviously constituted a focal point in the landscape, a fundamental territorial marker whose presence profoundly affected the perception of their surroundings by inhabitants of Bronze Age Apulia. As a consequence, it is not surprising that they were used also as loci for an atypical funerary custom. At present this practice appears to be documented only at Coppa Navigata, where abundant human remains have been recovered near or inside the fortifications during all the Middle Bronze Age phases. These included both 'formal' burials dating to the Apennine horizon, deposited in the passageways of the earlier Protoapennine walls, and small bones not in anatomical connection, probably remains of secondary depositions, mostly located in approximately the same area (see Figure 4.1.5 and Recchia 2008). In other words, at least in this case, walls enclosed and marked the land of the enclosed community in pretty much the same way the mounds did for the landscape around the dispersed villages in the semi-coastal area and in the hinterland.

Attempts have been made to estimate the amount of labour required by the construction of the Middle Bronze Age fortifications at Coppa Nevigata, and these returned a likely figure of 100 working days for about 50 workers (which should constitute a quarter of the adult males in the overall population of the site according to Cazzella 2009: 300; see also Cazzella & Moscoloni 1999, 2001). Such estimates, admittedly subject to a number of unpredictable variables (e.g. how far were the sources of raw material from the actual location of the walls?), highlight the huge amount of work required for the realization of such structures, but also reveals that this was probably accomplishable within a reasonable period of time using only the workforce available within the settlement.

Roca during the Middle Bronze Age

Now that a general outline of the occupational patterns of Adriatic Apulia has been sketched, we can turn to discuss the evidence from Roca (Figure 4.1.7) relating to the Middle Bronze Age, trying to make sense of how the traces of interaction are distributed in the site, and consequently to assess how Relations of Interaction worked within our case study. The discussion here will be exclusively limited to contextualised evidence, leaving the treatment of sporadic, residual and out of context material as well as a general stylistic assessment of Aegean-type pottery during this period to section 4.3.

This aim inexorably triggers a preliminary question that needs now to be posed: how typical is Roca within the general picture of settlement in Apulia? The answer, at least as far as the Middle Bronze Age is concerned, is fairly typical. Roca, respected many of the characteristics of coastal sites previously identified. The settlement was delimited on its eastern side by the sea and on the west by a shallow basin currently known as 'Bacino dei Tamari'. Landfall in the nearby sandy bay of Torre dell'Orso (about 1km to the south) was also easy (Figure 4.1.6).

From its earliest phases a fortification protected the settled area from the side toward the land. The relative phasing of the Middle Bronze Age fortification has only recently undergone an in-depth investigation (Pagliara 2002; Scarano 2010, 2011, 2012). According to such analyses, three main phases can be recognized. The first, dating to the Protoapennine and poorly preserved, was characterised by a width of about 5-6m (not dissimilar to that of the contemporary walls at Coppa Nevigata; see Cazzella et al. 2010). In Phase 2, still dated to a mature Protoapennine horizon, the thickness of the wall was increased (it measures now about 10-12 m) and three internal corridors and a small-pebbled road running on the interior of the walls were created. A large ditch endowed with narrow causeways, placed corresponding to each corridor and functioning as a sort of moat, was now excavated to the bedrock immediately outside the front of the wall, thus enhancing the defensive capabilities of the structure (Guglielmino & Pagliara 2004; Scarano 2011).

The best preserved among the phases of Middle Bronze Age Roca's fortifications is the latest one, dating to the Apennine period. During this phase there was a further increase of the overall width of the structure which now measured up to 20 m at its thickest point, which corresponded to the main gate. Now (Figure 4.1.8) the fortifications presented a complex plan endowed with rooms, roofed and unroofed corridors and a possible tower (Scarano 2011). The area on the interior close to the walls, which was previously left free, was now occupied by some small light structures, among which was also an oven (Guglielmino & Pagliara 2004: 565-566; Scarano 2011). This phase of the walls ended with a violent destruction occurring toward the end of the Apennine period and witnessed by a fairly consistent and homogeneous fire level encountered also in other areas of the settlement (e.g. in Area X see Pagliara et al. 2007; Scarano 2011). Some of these areas yielded numerous human remains. These were primarily located in the walls, in Postern B and C, in the Main Gate, plus minor quantities elsewhere.⁵¹ While for some of these remains it is possible that they constituted some kind of anomalous funerary ritual, such as those attested at

⁵¹ Most notably the remains of a juvenile individual in Postern D; two additional skulls emerged in recent excavations (Guglielmino pers. comm.)

Coppa Nevigata, others, as highlighted by taphonomical and forensic analyses (Fabbri 2002), appear to be the result of very different events. In particular, Postern C (Figure 4.1.9), excavated during the 1990s, revealed an outstanding Pompeii-like context sealed by the destruction debris of the Apennine phase of the fortification. In particular, 7 individuals have been identified in a small space toward the end of the corridor whose entrance had been blocked by a barrier of large stones. On the basis of their unusual position, it is quite likely these individuals died as a result of asphyxiation during the fire event that destroyed the Apennine fortifications.⁵² Also given the sex/age represented, i.e. two adults of different sex, one juvenile and four children, it is probable that the group represented a family. In order to provide an explanation for such an unusual context, Guglielmino (2006, see also Guglielmino & Pagliara 2004), on the basis of similar situations encountered in historical sources, hypothesizes a siege scenario where the population living in the countryside converged within the area of the walled settlement to find shelter. Although intriguing, this hypothesis is problematic as it implies the maintenance of a siege with Middle-Late Bronze Age technical capabilities at a settlement that was probably enclosed by fortification only on one side. A large number of handmade Impasto vessels were retrieved in the same context, grouped in several clusters at different distances from the human remains. These included all the essential equipment of a household, thus suggesting that the group of people in Postern C probably actually lived there (Figure 4.1.9).⁵³

Another dead individual (an adult male) has been connected with the same fire event. His remains were uncovered in the main gate on top of the fire level, and on this basis it has been argued that probably the main gate had some sort of upper floor structures from which the individual fell (Guglielmino 1996 and pers. comm.). Although signs of a weapon thrust have been identified on the bones, the skeleton was in a relatively poor state of preservation and considering its position

⁵² The careful excavation of the context revealed that some of the individuals tried to cover their head from something falling from above (arguably the roof of the corridor?), others were seated whilst others again had their hands around their neck (a reaction that is typical among those suffering from asphyxia (Fabbri 2002)).

⁵³ As a matter of fact, one group of large storage vessels was actually used to hide the entrance to the area of Postern C.

on top of the destruction debris, the possibility that it was part of the same kind of later atypical burial as the ones previously discussed cannot be ruled out completely. The close spatial relationship between these remains and a dagger of Aegean-type and a duck pyxis (Figure 4.1.10) has also induced Guglielmino (1996) to identify the man with an Aegean aggressor, although this suggestion remains tentative.

As for material of possible/probable exogenous origin (Figure 4.1.10), excluding the Aegean-type dagger and duck pyxis only 5 such sherds have been uncovered in the area of the Middle Bronze Age fortifications. These include both standard LH IIIA products such as piriform jars, a kylix and a straight sided alabastron as well as probable relics of earlier periods, such as, for instance, a fragment of a possible Minyan kantharos (see 4.3 and Guglielmino 2013 forthcoming).

However, the fortifications are not the only area explored with occupation from the Middle Bronze Age, and deposits pertaining to these phases have been exposed in several other parts of the settlement. Most notably, within Area X, one of our sample areas (see section 3.3), the burnt level covers the remains of the Phase I occupation dating to the Apennine Middle Bronze Age. Very few structural remains have been identified, although in the south west of the area it seems possible to recognise the corner of a quadrangular building with stone walls, possibly a house which also yielded a small set of loom weights (Figure 4.1.12). Only one isolated, non-diagnostic sherd of Aegean-type material has been recovered in the levels belonging to this phase (this represents the only such find dating to the Middle Bronze Age from the two sample areas analysed in this study), and, of course, it is entirely possible that we are dealing with a residual sherd filtered down from later strata. Apart from the fortifications and the evidence from Area X, Middle Bronze Age occupation at Roca has proved to be extremely thin and elusive. It is usually limited to the fill of ambiguous underground structures that have been uncovered all over the peninsula. These are semi-underground structures (Figure 4.1.13) whose fill often contains traces of later occupation. They are extremely variable in size and shape, ranging from small irregular pits up to

large cavities with relatively coherent plan. None of the structures presented any formalized entrance (either stairs or a dromos) and the majority of them were actually constituted by adaptations of natural cavities enlarged and modified to suit the needs of those who were using them (D'Amico 2003). What these needs were is not that easy to assess, and so far no single straightforward explanation able to make sense of the variety of activities hinted by material retrieved in the fill of the structures has emerged. All of them revealed some ceramic material, although typologies and quantities vary considerably, while faunal and charcoal remains are not always attested but nevertheless are present in a large proportion of these contexts. Some of these structures can undoubtedly represent the remains of parts of dwellings, following a model of semi-underground inhabitations extremely well attested in the area (i.e. the examples of Torre Santa Sabina or Otranto; see (Coppola & Cinquepalmi 1998; Coppola & Raimondi 1995; Orlando 1995). The attestation in at least one example of post-holes all around the structure seems to confirm this interpretation (in Area VI, Guglielmino pers. comm.).

Interestingly, in spite of their wide diffusion over the promontory of Roca, only one of these semi-hypogeal structures has produced Aegean-type material. This is a cup fragment stylistically dating to LM IIIA. Recent compositional analyses have suggested local production for this piece (see Figure 4.1.13; Guglielmino et al. 2010, no. 74; see also below). Such an early attestation of local production of Aegean-type pottery poses intriguing questions regarding the level of interconnection between Roca and the Aegean at this stage. However, the social importance of this evidence in terms of changes in the structure of craft production at the site need not be over-emphasized. After all, the earliest attestation of contact with the Aegean at the site dates at least to the beginning of the LH, and therefore the inception of local production, although early in general terms, comes after a long period of episodic frequentation over several centuries. Furthermore, from a purely quantitative point of view, considering the small size of the overall sample of Aegean-type material at the site during this period (see below), the attestation of a locally made specimen does not need to imply anything but the first embryonic steps of a phenomenon that will become significant only in subsequent phases.

All in all, evidence of interaction for the Middle Bronze Age community of Roca suggests that, although Aegean-type material was undoubtedly already present at the site (see below section 4.3), its diffusion among Roca's households was not widespread. This, in turn, might underlie different possibilities. It is possible that this trend is purely the outcome of an investigation or preservation bias, i.e. either that excavators of the site did not manage to find consistent areas of concentration of Aegean-type materials at the site or that these areas have not been preserved. The generally poor state of preservation of deposits belonging to the Middle Bronze Age seems to confirm the relevance of this last suggestion. However, the fact that a relatively large number of semi-underground deposits (whatever their nature was) around the whole of Roca's peninsula did reveal Protoapennine and Apennine material and that these were associated with Aegean-type pottery dated to the same horizon only in a single case suggests that the pattern recognized in the archaeological record arguably does have some real significance and that, to put it simply, large quantities of imported/imitated material were simply not there. As a consequence, there simply is not enough material to suggest that access to it was limited and/or controlled in some form.

Context of interaction beyond Roca

Roca, however, is not the only site in Apulia that has revealed during the Middle Bronze Age traces of long-range interaction. Indeed, limiting for now the discussion to Aegean-type pottery alone, minute quantities of this class of material have been uncovered in several other contemporary sites in the Adriatic (Figure 4.1.15). The most common contexts of recovery (and probably also of deposition) are settlements where sherds are retrieved in the use levels of the small huts representing the typical dwelling units of the region. Such a situation is attested at various locales along the Adriatic and Ionian coast of Apulia, such as for instance Bari, Monopoli, Punta le Terrare and Porto Cesareo (Scalo di Furno) (Lo Porto 1990; Princigalli 2010; Radina 1998, 2010a). The repertoire seems to have been quite varied, encompassing both closed and open shapes fit for a variety of

functions (see below). Finds not related to use levels of huts are fairly limited. An apparent exception is represented by the few sherds recovered at Manaccora, a cave that was frequented for cultic and funerary purposes from the Protoapennine period. The extremely fragmentary nature of these materials and the fact that they were not associated with any inhumation seems to suggest that they were not deposited deliberately in the cave during rituals but that they ended up in the archaeological deposits together with other debris from the nearby settlement only by chance (Baumgartel 1951, Recchia 1993).

A probable exception is the Dolmen San Silvestro at Giovinazzo, where the fragment of a possible LH I cup has been uncovered in the remains of the archaeological deposits belonging to the burials. The authenticity of this find has been doubted in the past by Benzi and Graziadio (1982), although the subsequent recovery of matt-painted fragments from the occupational layer of the related settlement (Radina & Cataldo 1998) seems to have provided some sort of confirmation for early Aegean contact at the site.

A further exception, again referring to a funerary context, is the burial mound of Torre Santa Sabina near Brindisi (Figure 4.1.16). This is a funerary monument of rather a unusual kind which, as highlighted by various scholars (Onnis 2010; Orlando 1995: 28; Peroni 1996: 220), bears noteworthy similarities with burial practices attested on the other side of the Adriatic, most notably in Albania (Andrea 1985). Here, as in the Albanian examples and unlike other funerary structures such as the aforementioned Dolmen San Silvestro (a passage grave), the mound was built starting from a central pit-tomb not endowed with any megalithic chamber but only covered with a stone slab. Other burials were then dug directly into the mound all around the central one (Lo Porto 1963a; Orlando 1995). In the case of Torre Santa Sabina, the central grave was occupied by an individual placed crouched on its left side, another peculiarity typical of Albanian *tumaj* (the Albanian term for mound; see for instance the tumulus of Dukat near Vlorë; see Bodinaku 2002; Onnis 2010). This burial was endowed with grave offerings only of Aegean-type, most notably: a Vaphio cup, a straight sided alabastron, a Matt-Painted jug and a bronze knife (Figure 4.1.16). Similarities can

be recognized with the tumulus 1 of Pazhok in Albania (Islami & Ceka 1964), where a Vaphio cup is associated not only with a knife but also with a rapier of type A (also Bejko 1994). Other Albanian tumuli present among the offerings some of the elements attested at Torre Santa Sabina, but not all of them (so while at Margelliç there is an alabastron, at Rehovë a jug is attested; Andrea 1985; Bejko 1994; Onnis 2008). Indeed, although not particularly high in absolute terms, the quantity of Aegean-type material (three vessels plus the knife in only one tomb) does not seem to find comparison in the archaeological record of *tumaj*, where grave goods (and not only the exotic ones) are normally fairly limited in number (Onnis 2010). However, as suggested by Onnis (2010), the Torre Santa Sabina mound has also other peculiarities that do not particularly fit with the Albanian parallels. These can be recognized primarily in the interment of more than one body in the same tomb, as well as in the presence of children among the inhumations. Both features are well attested in other dolmenic mounds of Apulia and therefore it does not seem necessary to look for parallels in the Ionian Islands as Onnis (2010) does (Ingravallo et al. 2007, 2010).

Also of exceptional character, although probably still related to some sort of settlement, are the finds from the important site of Scoglio del Tonno, a large portion of which (about 39 vessels) should date to LH IIIA2 and therefore towards the end of the Italian Middle Bronze Age (Figure 4.1.17; Peroni 1996; Quagliati 1900). This Ionian site was located on the northern shore of the Mare Piccolo of the modern city (and archaic Greek colony) of Taranto, an enviable position for maritime activity. The site, unfortunately, was only explored for three months in 1899, after which the whole hill where it was situated was destroyed with explosives to make room for the commercial port of Taranto. The relatively short preliminary report published by Quagliati in 1900 remains the only document describing the context of one of the most important Bronze Age sites in the Central Mediterranean. In this report Quagliati (who was able to distinguish Mycenaean material from the rest of the Bronze-Iron Age painted pottery) mentions Mycenaean material only at one place, namely in relation to later huts of the *strato superiore* (upper layer), dating possibly to the Final Bronze - Early Iron Age, as suggested by possible association with Protogeometric (or Corinthian) vessels in

the same context.⁵⁴ In the same report, Quagliati describes an earlier large apsidal hut dating to the Recent Bronze Age (see section 5.1) that has since been endlessly discussed by a large number of scholars (among the most recent: Bietti Sestieri 2010: 148-149; Peroni 1996: 292; Striccoli 2004: 492). He mentions no Mycenaean pottery among the finds retrieved in association with this structure (a point stressed also by Fisher 1988).

More recently, however, Gorgoglione (former director of the Museum of Taranto, where the finds from Scoglio del Tonno are held) has asserted that the majority of the Aegean-type finds from the site came from the area of the hut, although without mentioning any source for this information (Gorgoglione et al. 2006). The contradiction between these two versions may be only apparent, as the area reported by Quagliati as containing Mycenaean finds in the upper layer (the junction between trench C and D; see Quagliati 1900, Pl. 1), is not actually that far from the location that revealed in the medium layer (or *strato mediano*) the remains of the apsidal building and the material might have been mixed. In any case, even if we were to accept the association of the apsidal building, with the bulk of Aegean-type pottery, for the LH IIIA2 material this would still constitute a secondary context of deposition as the primary one should date within the Apennine Middle Bronze Age. To sum up, the context of the early Aegean-type material at Scoglio del Tonno remains unknown.

Interaction in Adriatic Middle Bronze Age contexts however, was not uniquely represented by Aegean-type material. Some contexts have produced consistent traces of participation in exchange networks completely unrelated with the Aegean world. Probably among the most important of these are the rich funerary hypogea uncovered in the area around Trinitapoli. One of them, at Madonna di Loreto (the so-called *Ipogeo dei Bronzi*), was the locus of ritual for an elite group for about 250 years in the transitional period between the Protoapennine and the Apennine, comprising over 200 depositions (Figure 4.1.18;

⁵⁴ "Frammenti di vasi d'argilla figulina pura, a fondo pallido, con decorazione geometrica trattata a pennello in rosso e nero" see Quagliati 1900: 419.

Tunzi Sisto 1999).⁵⁵ Bronze items including both weapons and personal ornaments bearing linkages with northern Italy and the Balkans (see below) were deposited as grave-goods with local Impasto pottery and other exotica (such as amber and faience), in complex associations with clearly distinguishable gender differentiations. In particular, while swords and rings were associated with male depositions, pottery pyxides, ornaments and other similar items were more likely to occur in association with females. The spatial pattern within the hypogea also indicated the alternate deposition of women and men with marked zonal patterns and respect for previous depositions, possibly indicating the persistence of kinship linkages among the group using the hypogeum through the years (Bietti Sestieri 2010; Vanzetti 1999). On the basis of grave goods' associations as well as of patterns of deposition, Recchia (1999) has suggested the existence of possible similarities with funerary ritual attested also at the Manaccora cave in the Gargano, where swords with trans-Adriatic affinities were also identified (most notably the Manaccora type swords, (Peroni 1989: 346; Recchia 2002: 334, fig. 3.6).

The outstanding evidence from Trinitapoli has suggested to various scholars different interpretations. Peroni (1999) identifies in the group buried in the hypogeum of Madonna di Loreto an early example of the pre-urban 'gentile' clan (or *formazione gentilizio-clientelare pre-urbana*) that, according to his general model for the evolution of Italian societies during the Bronze Age, should finally (i.e. during the Recent Bronze Age) supersede the 'traditional' tribes, and emerged as a result of the osmosis between southern Italy and Aegean world (Peroni 1996, 1999). Bietti Sestieri (2010: 117-118) instead suggests that the social display exhibited at Madonna di Loreto is purely the outcome of the competition between local kinship groups (involved in piracy and raiding activities), and that the community to which the hypogeum referred had little structural difference from the organization of other Preapennine and Apennine centres of Southern Italy (Bietti Sestieri 2003, 2010). Potentially, both suggestions hold some truth. In fact, as we shall see, while the overall evidence for interaction with the Aegean in this sector of Adriatic Apulia at this time is undoubtedly thin, and beyond any doubt

⁵⁵ According to the excavator (Tunzi Sisto 1999: 188-191) the exterior of the hypogeum was also frequented for cultic purposes.

too thin to propose the kind of 'osmosis' which Peroni seems to imply, the use of the same burial site for as long as is attested in the *Ipogeo dei Bronzi* indicates the endurance of strong kinship ties between one or a limited number of related lineages whose importance cannot be underestimated. Overall, both Peroni's and Bietti Sestieri's hypotheses fall short of acknowledging the possibility that social change at Trinitapoli might have emerged despite the absence of considerable direct connections with the Aegean world (see section 4.4).

4.2 The Protoapennine and Apennine Network

Now that the context of interaction (or better the contexts of deposition of the consequences of interaction) at the level of the individual community has been discussed in some detail, it is possible to turn to the next component relevant to our approach, namely defining the small-scale network. The kind of connections that I will discuss here are those within a short range, namely those that, as explained in chapter 3, underlie the existence of inter-community political ties. In chapter 3, I have also argued that the stylistic features of handmade Impasto pottery represent the evidence that can most fruitfully be examined.

Dealing with Small Scale Networks

Following the chronological discussion presented in Chapter 3 (see section 3.2), in order to by-pass problems related to the chronology of different features of Impasto pottery, the analysis here will be primarily focused on incised decoration. This has proven, in general, to have a more secure chronological position, most notably in the latter part of the Protoapennine and during the whole Apennine period (Cocchi Genick 1995; Cocchi Genick et al. 1993; Macchiarola 1987) or through a longer Apennine/ Punta le Terrare phase, according to others (Cazzella & Moscoloni 1992; Recchia & Ruggini 2009). Also, my analysis will show that decoration, although undoubtedly subject to considerable regional variability

(Scarano 2006), is an indicator able to demonstrate unexpected relations not directly connected to geographic contiguity.

As mentioned in section 3.2, decoration is a feature typical of handmade Impasto pottery at this time. It is normally incised and lines are often filled with white paste (Figure 4.2.1). Relief decoration is attested on some shapes (mostly on storage vessels), but is normally not much elaborated and is not very time-sensitive as an indicator (Cazzella & Recchia 2004). During Protoapennine times decoration is quite simple, encompassing many linear motifs, while in the mature Apennine phase motifs can become fairly complicated and excision is also present as a technique (Figure 4.2.2; Cocchi Genick et al. 1993; Macchiarola 1987; Scarano 2006).

In the construction of the networks analysed below I have taken into consideration the co-attestation of the same decorative motifs in the territory of Apulia.⁵⁶ As a basis for this operation, I have adopted existing typologies and catalogues of decorated pottery that are fairly detailed, trying also to update them with more recent finds (Cocchi Genick et al. 1993; Macchiarola 1987; Scarano 2006).⁵⁷

The graphs are undirected, which means that any relationship expressed is symmetrical (i.e. $a_{ij} = a_{ji}$) and this corresponds with the real indeterminacy that characterises the distribution and circulation of motifs in the area, such that it is never possible to assess where exactly a motif was firstly realized. For this same reason (as well as for those related to the scale of the network already evidenced in section 3.5), distance between sites has not been taken into consideration in the networks, i.e. nodes connect one another throughout the whole region. Weighting

⁵⁶ The same territorial restrictions explained in note 1 apply also here. The sites analysed are not all the sites dating to the Middle Bronze Age presented in the Appendix 1, but only a more restricted subset in which pottery has been published (even if selectively). The bibliography is in the table in Appendix 2. All the graphs have been constructed with the aid of the software Gephi, a Java open-source application available at <http://gephi.org>.

⁵⁷ For some of the later motifs, i.e. those dating to the mature Apennine phase, the primarily typological outlook of some of the sources used had led to the proliferation of the number of motifs and variants identified, which are often differentiated only by minute details. In these cases I have decided to consider these motifs jointly (variants of Macchiarola 1987, no. 80 as well as no. 82 and 83, 146 and 151, 163 and 164, 175a and 177a of the same catalogue).

of edges has been adopted in order to highlight the connection between sites based on more than one motif. If two sites share only one motif, the weight of their link is 1, if two than weight is 2 and so on. As for any model based on real instead of theoretical data, there is always the possibility that the incompleteness of the information available has influenced the design of the graph. Given these last two considerations, it is important to bear in mind that the graph is only an analytical simplification, where connections do not necessarily imply direct contact between sites. The graph represents just an imperfect assessment based on our current state of knowledge and the existence of presently unknown intermediate nodes in the region bridging between two known nodes is always possible.

The main aim of the analysis will be to identify sites that have a larger Weighted Degree Centrality (i.e. number of connections),⁵⁸ as, according to the theoretical framework presented in Chapter 1, multiple connections will allow communities to gather capital from a variety of sources, increasing their position in Relations of Interaction. In the tables with the network measures (Table 4.2.1-2, 5.2.1, 6.2.1) the column 'Weighted Degree' report the number of edges for each node and the one with highest value is the one that has the highest Degree Centrality in the network. In addition the graphs are investigated for the correlation between Weighted Degree Centrality and the presence of Aegean-type pottery as well as for general patterns of connectiveness, trying to highlight differences in the network of Impasto pottery over time and how these correlate with Aegean interaction.

Naturally enough, there is a problem of representativeness that lies at the basis of the network analysis here proposed. For almost the totality of sites included in the network, we do not know the original amount of the sample of pottery as nearly always this was not reported in the publications, mostly due to the fact that the interest was in typological aspects of Impasto pottery rather than in the specific quantities of each assemblages. Considering the uneven nature of the documentation analysed (material from settlement tombs and surveys), and the

⁵⁸ Weighted centralities have been adopted; however, observing the data in the tables (Tables 4.2.1, 4.2.2, 4.2.3), it can be seen that simple degree centralities never differ substantially from the weighted versions.

different standards (of collection, selection and publication) entailed, often (if not always) not explicitated by the excavators, a precise assessment of the bias related to the different size of the assemblage of each site appears impossible in practice. Nevertheless, as it has been highlighted, exploration of sites in the area has been, with few exceptions, relatively uniform (i.e. not particularly intense) and a hint that exploration bias is probably not overwhelming is offered by the spatial correlation between the nodes with the stronger connections. Many sites with strong linkages appears close one another (Figure 4.2.3 a, i.e. no. 144 and 123 or nos. 22, 113 and 137) and this is something that is expected in a real world situation, where people are more likely to enter more frequently into contact with inhabitants of nearby communities. In any case, the differential level of exploration and preservation of sites in the network will be considered in the critical evaluation of the results, trying to assess its influence on the overall shape of the network.

The analysis has been subdivided in two parts according to the chronological position of the motifs. These correspond to the Protoapennine motifs (Figure 4.2.3) and those exclusive to the mature Apennine phase (Figure 4.2.4).

The Protoapennine network

The graph in Figure 4.2.3 (data in Appendix 2, measures in Table 4.2.1) represents the network of motifs dating uniquely to the Protoapennine period. A high weighted degree characterizes sites which have a large number of motifs such as Cavallino (no. 22) or Roca (no. 135). These are also settlements that have been extensively and systematically explored, although interestingly they do not reach the highest score. The site that has the highest score in terms of weighted degree is Scoglio del Tonno (no. 144). This is a significant confirmation for the overall validity of the methodology adopted since, as has been highlighted (section 4.1),

the site was only excavated for three months.⁵⁹ The settlement was therefore probably highly important in the network mediating the circulation of Protoapennine pottery motifs and therefore in the interaction underlying this. The lack of any contextual information regarding this site at this time is, in this light, even more unfortunate.

It is important to note that at this time, Scoglio del Tonno still does not present any trace of Aegean-type material, and such are poorly attested too at the nearby site of Porto Perone – Satyrion (no. 123, which has also a high score in terms of weighted degree).⁶⁰ Therefore, it is extremely likely that at Scoglio del Tonno, during this period, interaction with the Aegean was, if not totally absent at the site, at least relatively unimportant.

Taking into consideration all the sites represented in the network, it can be seen that, in terms of per-site average, the weighted degree expressed by sites where Aegean-type pottery is attested is greater than that of sites where it is not (Table 4.2.3). The examination of another measure of the network, namely modularity, i.e. a group of nodes that interact more frequently among them than with other nodes,⁶¹ reveals the existence of a cluster of 13 nodes (modularity class 1 in Table 4.2.2) that includes almost exclusively coastal sites in southern and central Apulia (the only exceptions are the inland site of Santa Maria di Ripalta [no. 142] and the semi-coastal site of Madonna del Petto [no. 68], both in northern Apulia).

In other words, it seems that early Aegean contact in Apulia was directed primarily at sites that had a favourable position in local networks. The case of

⁵⁹ A few details can be added to give a better idea of the relatively unbiased nature of the assemblage of Scoglio del Tonno. Because of the physical characteristics of Impasto pottery, it is extremely hard to spot incised motifs on pottery before washing (which given the overall situation at the site was definitely not a priority). Also, at the time Middle Bronze Age pottery of Southern Italy was very little known (an aspect which is also mirrored in the haphazard and incoherent account of the stratigraphy in the report; see Quagliati 1900), thus limiting the effects of the tendency, frequent in old excavations, to select only 'new' diagnostic material.

⁶⁰ The possible existence of Aegean-type materials pre-dating LH IIIA2 has been argued by Vianello (2005: 151), but this suggestion remains within the domain of speculation.

⁶¹ See Scott 2000. Modularity is here calculated through the software Gephi using the method proposed by Blondel et al. 2008.

Scoglio del Tonno seems to indicate that these local interactions should *predate* the bulk of Aegean contact and are not a direct consequence of this. Also, the cluster of coastal sites identified suggests the existence of more frequent interaction between coastal sites in the central and southern areas of the region. This might have been carried out both via maritime means (through coastal navigation in the case of sites placed on the same coastline) or via movement over land.

The Apennine network

The analysis of the second graph of this series reveals that the mature Apennine network underwent dramatic changes during the 14th cent. BC (Figure 4.2.4; Table 4.2.2). Sites with Aegean-type pottery have now about the same share of connections as sites without it (Table 4.2.3). The settlement that has the largest score in terms of weighted degree is now Coppa Nevigata (no. 28) in the north of the region and many of the connections with this site seems to be based again in north and central Apulia whilst the south seems to be less central. This aspect is also mirrored in the network's modularity (Table 4.2.2, "Modularity class"), as the class in which Coppa Nevigata is included comprises only northern and central Apulian sites.

The second highest score to awarded by Scoglio del Tonno (no.144), but the difference in Weighted Degree between this site and Coppa Nevigata is substantial, considerably more than that between Scoglio and an average scoring site such as Roca (135). This last site, at this time, seems to have not been particularly central in the Impasto pottery network. The reason for this score is probably connected with the violent destruction occurring at the site between 1448 and 1379 BC according to radiocarbon dates, i.e. before the full 'development' of the Apennine culture (Pagliara et al. 2007). Although the site probably did not experience a full fledged abandonment for any substantial amount of time, the conditions of life were severely worsened (see section 5.1), thus reducing the ability of the community at Roca to enjoy an important role in the subsequent Impasto pottery network. This would be particularly the case if, as suggested in Chapter 3 (section

3.5), the circulation of stylistic features was connected with intermarriages between communities. A moment of crisis, involving both the demographic base of the community and the amount of resources available to inhabitants, would likely produce a contraction of the number of offsprings and a reduction of the incidence of intermarriage.

Going back to the network, as mentioned before, motifs are now much more complex than in the past and many variants are produced. This increase of variability, however, does not seem to have been matched by an increase in the number of motifs circulating between sites. If on average, in Protoapennine times every motif produced was shared at least 9 times in the Apennine phase it was replicated only 6 times (column Average Weighted Degree [AWD] in Table 4.2.6).

Overall, it seems that in this period the network based on Impasto pottery decoration, despite the proliferation of motifs and the increase of elaboration of the same, has become much less dynamic. Motifs probably travelled less than before and when they did travel, they remained primarily within the confines of the northern part of the region (and due to the boundary-effect the graph does not include interactions occurring between northern Apulia and other communities to the north and the west). This northern prevalence in the circulation of late Apennine motifs had been already noticed (Recchia & Ruggini 2009) and, to this extent, the network provides more precise confirmation of this general pattern. Furthermore, the analysis reveals that the small scale network witnessed in Apennine decoration was largely independent from the circulation of Aegean-type pottery, i.e. that sites presenting Aegean-type finds were no more central than other sites in local networks. It is not coincidental, to this extent, that the most central site (Coppa Nevigata no. 28) did not yield Aegean-type material dating to this period (Bettelli 2002: 20-21). Such a situation might be the result of a variety of factors that will be more thoroughly analysed below. It is, naturally enough, possible that this result is, to a certain extent, influenced by the specific indicators compared (i.e. decorated Apennine pottery and presence/absence of Aegean-type material), and that taking into consideration other indicators, the resulting picture may be more nuanced although not substantially altered.

Bearing this in mind, in order to better understand the relationship between local and Aegean networks, it will be necessary to compare the pattern highlighted here with large-scale interactional dynamics connecting this region with the rest of the Mediterranean.

4.3 The Wider Mediterranean Context during the Middle Bronze Age

The picture drawn so far relates primarily to interaction at short and medium range. However, as we have already had the chance to glimpse, what was happening in the Adriatic was only part of a larger network encompassing much of the Mediterranean. In this section, I will broaden the horizon, addressing the wider scale implications of the connections in which the Adriatic communities were entangled. As suggested (see sections 1.3 and 3.6), most of the evidence discussed in this section will refer to what we have defined as ‘prestige’ goods, namely goods that possessed a special significance related to their remote provenance, which, it is argued, was in some way perceived by their users. Given these considerations, if we are to address the broader involvement of Adriatic communities, the obvious direction from which to start is the other side of the sea.

Balkan and Northern Italian connections

As we saw in Chapter 2, these connections were well established and vital during the Chalcolithic and Early Bronze Age. At the beginning of the subsequent Protoapennine phase, however (see section 2.3), there seems to have been a decrease in the level of interaction attested across the Adriatic sea. Highlighting this, one of the criteria identified by Cazzella (2009) for the definition of the 2nd millennium BC phase of the Protoapennine period is exactly the absence of linkages with the other shore of the sea, most notably with the Cetina horizon. Nevertheless, relations did not cease altogether and some traces of interaction can still be recognized.

These are no longer characterized by the attestation of objects of Balkan origin on the other shore of the sea but rather by individual elements (mostly morphological features) that are adopted by different archaeological cultures on both the east and the west side. The origin of such elements is probably to be sought on the eastern Adriatic coast, as in Italy they have an extremely limited distribution (Cazzella & Moscoloni 1995). These elements correlate the early Dinaric Middle Bronze Age culture of Novocajno with Protoapennine Adriatic Italy. Among these features are two categories of handles, namely those with an expanded upper part shaped as a semicircular lug and those terminating with a small flap on the upper joint (Figure 4.2.6, no. 1-4, 14-20; see Cazzella & Moscoloni 1995; Čović 1989; Govedarica 1992; Recchia 2002). The first type seems to be datable to the Early and Middle Bronze Age and is attested at Coppa Nevigata throughout the whole Bronze Age while the second starts only in the Middle Bronze Age (Dinara 2 period in Balkan terms) and again at Coppa is recorded only in a horizon that goes from the Protoapennine B to the the early Apennine. As mentioned before, these morphological features are recorded primarily in northern Apulia in the area around the Gargano, with a particular concentration in the far north (at Torre Mileto, Grotta Manaccora and other sites, see Recchia 2002; Tunzi Sisto 1995; Tunzi Sisto et al. 2010) and more sparse attestation to the south in coastal as well as semi-coastal sites such as Coppa Nevigata or Trinitapoli (Cataldo 1999: 248-9; Cazzella & Moscoloni 1995).⁶² This last site, together with other collective funerary contexts in northern Apulia such as Manaccora, was also, on the basis of parallels in metalwork, a locus of interaction particularly in the final part of the Protoapennine and early Apennine periods (Bietti Sestieri 2003: 54-5). The rich grave offerings accompanying the depositions in the Ipogeo dei Bronzi and in the Manaccora Cave suggest a number of long range connections. These can be primarily identified in ornaments such as rings with double spirals separated by a tubular element, which have parallels in Dalmatia and Montenegro (i.e. same type as Figure 4.3.2 no. 11, 20, 24; see Bietti Sestieri 2003; Recchia 2002; fig. 3.13, 23, Vanzetti 1999), or the small discoidal bronze studs with dotted decoration

⁶² Isolated examples of the first of the two features are perhaps present also at the La Chianca dolmen and at Leuca (Cataldo 1995, Pl. 37, 3; Orlando 1995 Pl. 82, 2).

(attested also at Bisceglie and Coppa Nevigata, see Figure 4.3.2 no. 12-19 and Bietti Sestieri 2003; Cataldo 1995, Pl. 37; Drechsler-Bižič 1983, Pl. 37-39; Recchia 2002, fig. 3 no. 15-21), although also knives (with parallels in Albanian finds from Pathos and Midhe; see Figure 4.3.2 no. 6-8 and Vanzetti 1999, fig.9; Korkuti 1981: 45, Pl. 8; Kurti 1978: 312, Pl. 2) and swords are attested (of the Sacile and Manaccora type, the last one with parallels in Southern Hercegovina as well as Serbia; see Figure 4.3.2 no. 1-6, 9-10 and Bianco Peroni 1970: 53-54; Bietti Sestieri 2003; Peroni 1989: 346, 1999: 217; Recchia 2002, fig. 3.6-12; Tunzi Sisto 1999, Pl. 2).⁶³

The Sacile type sword (Figure 4.3.2 no. 5b; see Bianco Peroni 1970: 54-57) which is also attested at Manaccora (Bianco Peroni 1970, no.112), represents a connection with northern Italy, as the type is relatively well attested in the northern Adriatic area (i.e. at the necropolis of Olmo di Nogara and at other locales; Bianco Peroni 1970, no 112-18; Salzani 2005, tomb 494). Another northern connection documented in the hypogea of Trinitapoli, as well and elsewhere, is amber. Small quantities of this material, in the form of beads and entire necklaces, were deposited in a number of funerary contexts as well as occasionally in settlements (Bellintani 2010a; Radina & Recchia 2006).⁶⁴ Radina and Recchia (2006) note that the distribution of amber and other similar high value/small bulk materials does not coincide with that of Aegean-type pottery, and consider this trend as the outcome of a conscious process of selection operated by Apulian populations. However, while this explanation is extremely probable for similar goods such as faience, that often circulated together with Mycenaean pottery in eastern Mediterranean trading networks, considering the likely northern origin of amber,⁶⁵ it appears more likely that this travelled on circuits

⁶³ As suggested by Recchia (2002: 335), it is interesting to note that in the relatively close, but more inland, multiple tomb of Toppo Daguzzo in Basilicata, the same trans-Adriatic elements attested at Manaccora and Trinitapoli are not attested.

⁶⁴ The only rich find related with amber comes from a female burial in the *Ipogeo dei Bronzi* (the so-called *Signora delle Ambre*, i.e. Mistress of the Amber) that was accompanied by a rich parure of amber necklaces (Tunzi Sisto 1999: 214). During the Middle Bronze Age (both Protoapennine and Apennine), amber is attested also at Punta Manaccora, at Coppa Nevigata, at the La Chianca dolmen, as well as possibly at Roca (which would constitute the only other settlement context excluding Coppa). Outside the area of immediate interest for this study, amber finds are recorded also at the multiple underground tombs of Toppo Daguzzo and Lavello in Basilicata (Guglielmino pers. comm.; Radina & Recchia 2006, fig. 2-3).

⁶⁵ Provenance analyses have revealed the prevalence of Baltic amber (succinite) in the Apulian contexts (Bellintani 2010). 'Sicilian' amber (i.e. siemetite), whose circulation in the Aegean

which were distinct from those of Aegean-type pottery, i.e. the local ones (a confirmation of this hypothesis is provided by the stylistic similarities between the Apennine pottery of Coppa Nevigata and Madonna di Loreto, two sites which yielded amber finds, see table 4.2).

As for the north-south connections along the Adriatic coast, decoration of Protoapennine and Apennine pottery can also sporadically support this although often quite thinly, since, as argued before, Impasto pottery is an indicator more suited for identifying medium-range interactions than long range ones. Such traces can, for instance, be identified in the attestation of the stylized solar motif dating to the Protoapennine (Cocchi Genick et al. 1993, no. 76; Scarano 2006) attested at Roca and two sites in Emilia Romagna (Grotta del Farneto and Monte Castellaccio). Also, for the Apennine period, a dotted circular motif (Macchiarola 1987, no 20) from Scoglio del Tonno has a wide northern distribution including both the Tyrrhenian and Adriatic coasts, while a crossed variant of the same (Macchiarola 1987, no. 21) is recorded again at Roca and at other locales in the Abruzzo and in the Marche region, along the central Adriatic coast (Scarano 2006).

So, to sum up, although probably the amount of interaction across the southern Adriatic decreased after Cetina times, a variety of indicators (primarily metalwork and, more limitedly, also pottery and exotic material such as amber), suggest the existence of relatively frequent connections both between the two shores of the southern Adriatic (primarily with Dalmatia but also with Albania), and from north to south along the Italian side of the sea (mostly with the Terramare area and the Trentino) .

(Cultraro 2007) and in the western Mediterranean (i.e. in Iberia see Murillo-Barroso & Martín-Torres 2012) has been suggested, is present at Trinitapoli as well as at other locales (at Laterza in a Late Chalcolitic/Early Bronze age context). The existence of amber of unknown provenance (i.e. not matching the chemical spectrum either of Baltic or of Sicilian material) has been also documented [see Bellintani 2010]).

Early Aegean connections (MH to LH II)

The discussion so far has principally aimed at exploring directions of interaction other than to the Aegean. Having said that, it is not possible to stress enough that Aegean interaction with the southern Adriatic was indeed unquestionably important, not least because the southern extremity of the Adriatic (i.e. the strait of Otranto), is an obligatory step travelling coastwise from east towards west from Greece. Through the timespan comprising the Italian Middle Bronze Age (Protoapennine and Apennine), that is from LH I to LH IIIA2 in Aegean terms, what is normally referred to in the Italian literature with the generic term of 'Mycenaean', i.e. the Aegean world, was several different things and is important to bear this in mind. It is obviously not the place here to review the detail of social and political developments in such a large area over such a long period, but, in brief, it is possible to safely assert that in an early horizon (late Middle Helladic to LHI-II, corresponding to the so-called Shaft Grave period), most of the polities of the Aegean (with the exclusion of Neopalatial Crete) that would come into contact with the west, as well as with the east Mediterranean, were only petty chiefdoms, where a number of elite clans competed over the control of resources (Dickinson 1977, 1989; Voutsaki 1995, 2010; Wright 2010). Although the relevance of external factors versus endogenous processes has been alternatively emphasized or underemphasized from the 1970s onward (often by the same scholars i.e. Dickinson 1977, 1989), detailed analyses of mortuary practices and of trade networks in the late MH and early LH mainland (also with the aid of chemical and petrographical characterization of pottery) has, in my view, highlighted the relevance of interaction in the processes that eventually led to the formation of palatial polities (Dietz 1991; Felten et al. 2007; Voutsaki 1997, 2010; Wolpert 2004; Zerner 1993). Burial display, feasting and gift-exchange of prestige goods (and the related restriction of their circulation to specific individuals/groups) constituted the main grounds for competition among local lineages (Graziadio 1991; Voutsaki 1997; Wright 2004a).

Given this, the early interest of mainland communities in long range exchange is in no way surprising. To the west, the Adriatic sea itself seems to have

constituted an insurmountable boundary for MH interaction. While on the eastern shore, in Albania and Epirus, there seem to be a few traces of interaction in the form of pottery and (more frequently) bronze weapon imports/imitations, for the western shore, i.e. Apulia, this seems not to have been the case until the Late Bronze Age (Bejko 1994, 2009; Onnis 2008).⁶⁶

The earliest attestation of Aegean-type material in Southern Italy (and, more specifically, as we have seen, in Apulia) dates to the LH I period (Bettelli 2002: 58-9, Marazzi 1988). The existence of slightly older connections with the Aegean world has been often suggested, even recently, by various scholars (i.e. Castellana 2000; Vianello 2005: 46). Still, all of the ceramic indicators of Middle Helladic 'tradition' (i.e. burnished and Minyan wares) that have been used to argue for MH linkages have actually a longer chronological diffusion and normally endure until LH IIIA (see section 3.2 and Graziadio 2000; Guglielmino 2013 forthcoming; Merkouri 2010; Mountjoy 1993: 33).⁶⁷ A particularly important role in the debate over the origin of Aegean interaction in the central Mediterranean has been played in the last few years by the finds from Monte Grande (Castellana 2000, 2011; Castellana et al. 1998). This site, located in the province of Agrigento in western Sicily, has recently been extensively explored, culminating in the rapid publication of the data.⁶⁸ The relatively substantial corpus of purportedly Middle and Late Helladic material has been found in association with structures connected with the production of sulphur which was also exploited in Roman times in the same area. The material was not in primary deposition, but was found mixed (together with Castelluccian pottery) in the fill of these structures. The extremely poor state of preservation of the pottery (the shape can be identified for only a handful of vessels), and the lack of any provenance analyses (nothing but a preliminary report has been published so far, see Goren et al. 2001), however, limit

⁶⁶ Aegean interaction with the eastern Adriatic seems to have been limited in latitude to the Albanian area and did not extend to Croatia. Indeed, despite a number of dubious finds tentatively connected to the Aegean world, none of them has a possible MH date (for a critical assessment of these finds see Forenbaheer 1995; Tomas 2005).

⁶⁷ Burnishing as a surface treatment is even longer lasting, being attested also during mature palatial and post-palatial times (e.g. Mountjoy 1999: 514 [LH IIB], 750, no.25 [LH IIIA1], 556, no.263 [LH IIIB2], 732, no.29 [LH IIIC Early]).

⁶⁸ In the same context (Castellana 2000) the evidence has been also presented for a number of nearby minor sites.

substantially any possible conclusion about the relevance of this site in early western central networks.⁶⁹ Given this, Castellana's (2000) claim of an earlier start of interaction with the Aegean world in western Sicily during MH needs to be looked at with suspicion, as does the individual, supposedly MH, sherd from the site of Pietraperzia (in the same area), which is undoubtedly not enough to alter current views (Tusa 1991; Vianello 2005: 147). For this same reason La Rosa's (2005) recent re-assessment of early Sicilian finds (where the problems related to Monte Grande are not specifically addressed) does not seem convincing.

When interaction started, that is during LH I-II (Figure 4.3.3, the period corresponding to the Protoapennine in Italy and Middle Bronze Age in Albania), the geographical range of contacts attested was already extremely wide, passing through Apulia and encompassing parts of coastal Sicily, the Aeolian and Phlegraean Islands, and perhaps stretching to the south to Pantelleria (Bietti Sestieri 1988; Marazzi 1994; Marazzi & Tusa 2005; Vagnetti 1982: 15-18). With such an extensive distribution, the Adriatic area can hardly be considered a frontier. There is also a relatively wide spacing between each site with evidence of Aegean interaction, with the exception of the Aeolian Islands and, perhaps to a more limited extent, a cluster of sites in western Sicily (around Monte Grande, but as has been highlighted this is far from being secure). As a result, what we see is a rather fragmented overall picture where individual findspots look rather isolated, failing to demonstrate a more integrated whole.

It has long been acknowledged that in this period the 'hot spot' for western interaction with the Aegean is the Tyrrhenian sea (see section 2.3 and Bietti Sestieri 1988; Graziadio 1998; Marazzi 1988). Tusa (1994) identifies different phases in the development of this interaction: a first where contact with the

⁶⁹ Recently, Jones and others (2005) have confirmed the provenance only of some finds dated to LH I-II, belonging to only two of the categories identified by Castellana (2000); most notably Canaanite jars and matt painted pottery (Jones et al. 2005: 541). It must be considered, however, that it is still possible we are dealing with later Levantine amphorae of Roman times or, as far as matt painted is concerned, later Aegean-type finds. In Castellana's publication, some of the finds indicated as Middle Helladic Matt-Painted (i.e. Castellana 2000: 37-41 MG 98/1-3, MG 98/9-11) seem visually not that dissimilar from standard Lustrous-Decorated fabrics of low-quality, while the fragment of a plain closed shape from Ragusetta (Castellana 2000: 53, Rag 99/5) looks suspiciously similar to medieval combed wares.

Aegean was mediated by the Aeolian islands, followed by one in which connections with the southern Tyrrhenian coast were more direct. Vivara represents a key site in this sense and indeed, has one of the largest assemblages of Aegean-type material of this period (Figure 4.3.5; see Panichelli & Re 1994). Occupation at the site seems to have been to some extent connected with metallurgic activities and a possible interest in the exploitation of sulphur has been also suggested (Marazzi 1994; La Rosa 2005). At this site, as well as at Monte Grande, specifically Aeginetan imports and influence have been identified (La Rosa 2005; Merkouri 2010; this suggestion has been also confirmed by chemical analyses: see Jones 1994; Jones et al. 2005).⁷⁰ Also among the finds from Vivara are a number of ambiguous objects often called in the literature *tokens* or roundels. These are basically sherds whose shape has been rounded through abrasion and that are assumed to have been adopted as early mnemonic devices for simple accounting operations, mostly on the basis of the adoption of vaguely similar objects recovered in the Aegean where they are often inscribed and/or bear seal impressions (Hallager 1987; Mammina & Marazzi 1994; Pini 1990; Weingarten 1986). Although this hypothesis is possible, the high number of examples retrieved (about 700), and the variability in their shape (the typological classes identified by Mammina and Marazzi [1994: 128] cover pretty much the the whole range of angles possible in a circumference), and the apparent lack of any relation between circular ‘tokens’ and their supposed fractions warns that perhaps other, more utilitarian, explanations for the use of these items cannot be ruled out completely (i.e. they might have been used as a sort of soft scraper).

Going back to the general picture, a consolidated view, which despite some nuancing (Graziadio 2000; Marazzi 1994)⁷¹ can largely still be held as valid, recognizes an east-west ‘divide’ in Aegean interaction during early LH times. According to this perspective, while the Levant was interested primarily in Crete, the central and western part of the Mediterranean would represent the primary locus of direct (i.e. not mediated by Crete) interaction by proto-Mycenaean

⁷⁰ Final MH/early LH Aegina was one of the principal mainland Greece pottery producers and exporters (Dietz 1991; Gauss & Kiriati 2011; Zerner 1993) and therefore we cannot attribute too much cultural significance to the presence of Aeginetan materials abroad (*contra* La Rosa 2005).

⁷¹ Graziadio’s (2000) amendment of his earlier position is grounded in the recognition of specific Kytheran and Laconian features in pottery from Lipari and Vivara.

seafarers from the then emerging mainland polities (Graziadio 1998). This view is grounded in the consideration that the quantity and distribution of early LH material, broadly construed, is substantially smaller in the eastern Mediterranean than in the west (Gregori & Palumbo 1986; Hankey 1967; Leonard 1994; Marazzi 1994; Van Wijngaarden 2002: 116, 261).

Early Aegean-type assemblages were quite varied, mirroring the nature of early LH assemblages in Greece (Merkouri 2010). Provenance analyses related to this early material suggest that in the overwhelming majority of cases pottery was imported rather than locally imitated (for an overview see Jones et al. 2005). Along with standard Lustrous Decorated products, a number of different classes of materials have been identified but the terminology adopted by scholars tends often to overlap and there is a lot of conceptual indeterminacy in the categories adopted (Guglielmino 2013). A first category, which is relatively rare, is that of coarse vessels that have been compared to Caananite jars, which are attested uniquely at Vivara and at Pantelleria (Marazzi & Tusa 2005). More common is 'burnished' pottery although, as rightly pointed out by Guglielmino (2013), there is much variation in what is intended with this term. Burnished pottery is quite well attested at Vivara and Monte Grande, where it has been compared to various mainland productions (from Plain Burnished ware from Lerna to the Fine Yellow Minyan Ware from Ayios Stephanos; Re 1994; for an in depth assessment of these issues see Guglielmino 2013). It is only occasionally documented in Apulia (i.e. at Monopoli, Punta le Terrare and at Porto Perone, see (Lo Porto 1963, 1995; Vagnetti et al. 1998: 279-280, 7.145-7.146).

Various Minyan imports have also been claimed, but while early studies included in this category sherds probably belonging to later Italic Grey Ware (see section 3.2), some of the material from a limited number of southern Italian sites might well be true Helladic Minyan material. In particular, probable true Minyan finds are those residual in Recent Bronze Age levels of Torre Mordillo (Damiani 2001: 254-255, fig. 47 no. 28), along with some of those from Porto Perone (Lo Porto 1963, perhaps no. 2 and 3) and Roca (see below and Guglielmino 2013). The last class of pottery of Middle Helladic 'ancestry' recovered in Italian contexts is

Matt-Painted, attested both in its monochrome and perhaps also in its polychrome version (i.e. Castellana 2000: 32, MGP 91/59 from Montegrande). Such pottery is present at Monte Grande (Castellana 2000: 32, 36, 40, 50, 52), Vivara (Re & Panichelli 1994: 198, 2.1.3), Giovinazzo (Bettelli 2010: 318, 11.2), Lipari (Vagnetti 1982: 16-17), Filicudi (Cavalier & Vagnetti 1983), Roca (Guglielmino 1996: 200 no. 2), and Torre Santa Sabina (Vagnetti et al. 1998: 280, no. 9.069), although the last two findspots are probably relatively late (dating perhaps within LH IIIA).

Along with these non-mycenaean pottery classes are also standard LH I and II Lustrous Decorated examples, that is standard Mycenaean pottery. This category of material is plentiful in the Aeolian islands, with abundant findspots at Lipari (about 73 vessels/finds) and Filicudi (25 vessels/finds), and minor concentrations at Salina and, as recently recognised, also at Stromboli (Bettelli et al. 2011; Tylour 1980; Vianello 2005: 123).

At Lipari in particular, which is one of the main sites for western Mediterranean interaction in this phase, Aegean-type pottery is exceptionally abundant. The evidence from this settlement is particularly important as, unlike Vivara and Monte Grande (and partially also Filicudi), where a large part of the material was either sporadic or in secondary deposition, the context of deposition was relatively good (Bernabò Brea & Cavalier 1980; Cavalier & Vagnetti 1984). At the site of the acropolis (Bernabò Brea & Cavalier 1980), Aegean-type material was associated with Capo Graziano and Milazzese local pottery (dating from the end of the local EBA to the MBA), in the occupation level of several relatively small buildings (Figure 4.3.6). The overall assemblage of Lustrous Decorated pottery dating to LH I-II is fairly rich, encompassing a variety of functions with a clear prevalence of tableware and, most notably, of cups (see Figure 4.3.7; data from Cavalier & Vagnetti 1984; Vianello 2005: 128-9). The in-depth analysis by Van Wijngaarden of the distribution of Aegean-type material in all the excavated trenches indicates that it does not seem to have been restricted to a particular area of the settlement, although some dwellings might have had more material than others (Figure 4.3.6; Van Wijngaarden 2002: 210-217).

Within this overall picture, despite Apulia's geographic centrality, only minor quantities of Aegean-type pottery seem to have leaked to its Adriatic and Ionian centres. Whatever sub-class of material is taken into consideration, the average findspot of Protoapennine Apulia counted a handful of sherds accompanied occasionally by other small-bulk exotica (such as glass, e.g. at Manaccora; Baumgartel 1953: 22). Roca's situation does not seem dissimilar to other nearby contemporary sites. Only one vessel in Lustrous Decorated pottery dating to this time-horizon has been recovered, a quite common example of a goblet decorated with a pendant rock pattern (FM 32) dating to LH IIB (Figure 4.3.8; see Guglielmino 1996, no. 1).⁷² Its extraordinary level of preservation (again when compared with other contemporary finds from the Apulia) is probably due to the optimal condition of conservation of the Middle Bronze Age deposits around the fortifications of the site, sealed by deep layers of destruction debris. Both the goblet and the Minyan fragments (see Figure 4.1.10; which can probably be dated to a similar horizon; see discussion in Guglielmino 2013) have been recently analyzed by Jones and Levi (see Guglielmino et al. 2010) and have proved to be imports (thus confirming the general trend previously mentioned). While the source of the goblet as well as that of one of the Minyan finds has been possibly (generically) identified in the Peloponnese, for a second fragment (coming from a kantharos) it has not been possible to pinpoint an origin.

In synthesis, the picture offered by early (LH I-II) Aegean interactions west of Greece is extremely variable. There are areas with relatively large evidence of contact (the Aeolian and Phlegrean archipelagos, and, to a more limited extent, Albania), while others have only minimal traces (the whole southern Italy). Despite this, some sites (such as Lipari), already seem to play major roles as communication nodes with the Aegean.

⁷² Goblet 254 with pendant rock pattern and wavy line is one of the type fossils of LH IIB and as such is attested in most LH IIB assemblages (Mountjoy 1986: 47). In the Roca example the wavy line follows the undulation of the pendant rock pattern (Guglielmino 1996, no. 1).

Early Palatial connections (LH IIIA)

The subsequent phase, corresponding to LH IIIA (contemporary in Italy with the Apennine-Middle Bronze Age 3 period and in Albania with the beginning of the Late Bronze Age), sees the Aegean (Mycenaean) world now fully transformed into a tributary mode of production. Both public and private buildings were constructed in the main palatial centres on the mainland (mostly on the remains of smaller earlier buildings) and the Mycenaean palace, as a structure, with all its elaborations (megaron, citadel and stores), experienced now its first full development (see Burns 2007; Fitzsimons 2006; Shelmerdine 1997: 541-548; Shelton 2010). The earliest Linear B archives also date back to this period, with the tablet recently recovered at the site of Iklaina in Messenia and the tablets from the Petsas house at Mycenae (see Shelton 2002; Skelton 2008). At Knossos the destruction of the palace, probably occurring before the end of LH IIIA, followed a period during which the site was the only palatial centre on Crete and was characterized by the beginning of the use of Linear B on the island (i.e. the so-called monopalatial period see (Bevan 2010; Dickinson 1994: 194; Driessen 1990).

Linear B archives from various sites in Mycenaean Greece, were comprised of accounting documents related to the palaces and the management of their surplus (Duhoux & Morpurgo-Davies 1985, 2008). These suggest a fairly articulated institutional structure with a, possibly religious, king (*wa-na-ka*, Hooker 1979; Palaima 1995) a military chief (*ra-wa-ke-ta*; Nikoloudis 2008) and a series of subordinates and sub-elites (among the others *ba-si-re-u*, *e-qe-ta* and the so-called 'collectors' (Killen 2001, 2006; Palaima 2006; Rougemont 1998) whose specific functions and relative position in the internal hierarchies is much debated.

LH IIIA corresponds to the period in which trade networks connecting the Aegean world seem to have reached their widest longitudinal extension, both to the east, including most of the coastal Levantine area (Leonard 1994; Van Wijngaarden 2002), and to the west, stretching as far north as Luni sul Mignone in Latium and as far west as Decimoputzu in Sardinia (Vagnetti 1999; Vagnetti & Poplin 2005; Vianello 2005; Van Wijngaarden 2002).

The most eloquent example of this maritime momentum is undoubtedly the cargo associated with the wreck of Uluburun, recovered not far from Kas on the southern coast of Turkey (Pulak 2008, 2010), where thousands of items, both finished products and raw material with disparate origins, were sent on the same ship, probably connected with some sort of royal gift exchange (Bachhuber 2006, but see also Monroe 2010). Despite this undoubted intensification, the picture revealed by the LH IIIA (Figure 4.3.9) network to the west is still one of regional segmentation. Aegean connections did not incorporate the whole set of nodes in a unitary 'trade circuit', but rather each site was embedded in a number of micro-networks in which the local component was probably of the foremost importance and in which the presence of Aegean 'actors' was needed at only one of the nodes in a segment.

During LH IIIA the eastern shore of the Adriatic sees a continuation of patterns attested in previous periods, with the deposition of a limited number of prestigious items as grave goods. These are mainly swords (of the C and D types) deposited normally in chiefly tombs within burial mounds, a mode of deposition that fundamentally confirms practices attested since the Middle Helladic (Kilian-Dirlmeier 1983, 1993; Onnis 2008). Interestingly, findspots appear to have been concentrated in the northern part of Albania, an area with some of the most conspicuous deposits of copper in the region (Steblez 1998). Pottery is almost completely absent, the only exception being at the semi-coastal site of Margelliç where minor quantities are documented at both the settlement and the cemetery (Bejko 1994).

While the Adriatic seascape is characterized by continuity, new trends seems to be recognizable further west. In particular, eastern Sicily became one of the main poles of attraction for Aegean contact. The very production of the local pottery defining this phase, although technologically dissimilar in fundamental ways (i.e. handmade in non-fine clays), has been seen as potentially influenced by

the development of Mycenaean decoration (D'Agata 2000).⁷³ In the Siracusano, i.e. the core region of the Thapsos culture, according to a recent proposal (D'Agata 1997; Palio 2004; *contra* Castellana 2000: 166), the transition from the late Early Bronze (Castelluccian) to the Middle Bronze Age (Thapsos culture) was accompanied by the creation of a number of fortified settlement/outposts (at Petraro and possibly at Thapsos), and perhaps by warfare between local communities. As for the chronology of these developments, some of the connections originally considered with the Tarxien cemetery phase in Malta may actually represent a late development of the Cetina phenomenon (i.e. at Siracusa). It is therefore possible that the region was experiencing a complex phenomenon (long duration, possible presence of internecine warfare) similar to that occurring in Adriatic Italy during Protoapennine times, though somehow earlier in date (see section 4.1. and Cazzella 2009; Maran 2007; Palio 2004).

During the Thapsos phase, as is well known, the site of Thapsos (from which the culture takes its name) constituted probably one of the main nodes in interaction with the Aegean world. Thapsos represents a fairly rare example within Mediterranean archaeology where both settlement and funerary evidence is available for analysis and both have produced Aegean-type material. However, the early date of the excavation of most of the large necropoleis of rock cut tombs (Figure 4.3.10), at the end of the 19th century AD, as well as the incomplete information available for the excavation of the settlement (a few preliminary reports have been issued in the last few years but no definitive publication and very little is known about Aegean-type material from the settlement deposits), have severely limited the information potential of the site (see Alberti 2007 with further bibliography; Leighton 1999: 150-157; Orsi 1895; Voza 1972, 1973, 1985; Van Wijngaarden 2002: 230). The cemetery at Thapsos yielded 38 Mycenaean vessels (all well preserved) that according to recent provenance analyses, are largely imports from the Peloponnese (Jones & Levi 2004).⁷⁴ Closed shapes were by far more popular than open ones, with a peculiar predilection for small piriform

⁷³ The existence of similarities with Aegean products has been suggested also for the painted pottery of the previous Castelluccian period (La Rosa 2005).

⁷⁴ In Van Wijngaarden's (2002: 230) opinion, the catalogue is incomplete as some other tombs have been also excavated after Orsi's times and have remained completely unpublished.

jars, and, on the basis of contextual analysis of associations, these imported vessels were probably employed in various strategies of status differentiation (Alberti 2006; Van Wijngaarden 2002: 226-232, 386). As for the settlement, according to the excavator (Voza 1972, 1973) two main phases can be recognized: one characterised by circular huts and a later one with quadrangular buildings agglomerating several rooms and organised along roads. The chronology of these two phases has been the subject of much discussion (Voza 1985), but according to recent analyses (based on a detailed examination of both funerary and settlement finds from Thapsos itself as well as from other sites), possibly the use of circular huts and that of quadrangular buildings was, at least for some time, contemporary and started in LH IIIA (Alberti 2007).

Militello (2004) identifies specific Cypro-Levantine influences within the plans of the quadrangular buildings (in particular with the site of Pyla Kokkinokremos on Cyprus; see Karageorghis & Demas 1984), suggesting the presence of architects coming from this area. Cypro-Levantine influence is undoubtedly present in Sicily during this period, as attested also by Cypriot finds (including both Base Ring II and White Shaved pottery and metalwork), at both Thapsos itself as well as Siracusa and the site of Cannatello, near the modern city of Agrigento and not far from Monte Grande (Alberti 2008; Lo Schiavo et al. 1985; Militello 2004, 2005: 590). This last settlement was also an important node in the Aegean connection with Sicily and some 42 vessels have been recovered in its occupation layers (De Miro 1996; Deorsola 1996). As at Thapsos, closed shapes are better represented than open ones and this pattern appears to be particularly significant in the light of the contextual difference between Thapsos and Cannatello; i.e. in the first case material came from a cemetery while in the second, from a settlement (Vianello 2005). In other words, although micro-regional differences may play an important role, it seems as if the predilection for closed shapes and therefore, most likely, their contents, was a fairly widespread feature of this period.

The same prevalence for closed shapes can be recognized at Scoglio del Tonno. Scoglio del Tonno during LH IIIA marks a profound discontinuity within the

panorama of Aegean interaction with Apulia. While previous traces in Apulia were limited to a few pot sherds scattered within occupational layers of huts or (more rarely) to a limited number of vessels deposited as grave goods, the rich and relatively homogeneous corpus of ceramic material that came to light in this Ionian centre seems to represent an undoubted novelty, which makes even more sad the loss of any contextual information relating to the pottery. This exceptional nature has led many scholars to follow Taylour's claim of a Mycenaean colony at the site (Hallager 1985 with references; Taylour 1958: 128-131). As highlighted by Fisher (1989), however, Protoapennine occupation is indisputably present and is witnessed at the site by local Impasto pottery, while Aegean-type material is attested only from the final phase of LH IIIA, that is LH IIIA2. A group of piriform jars belonging to this phase (close to FS 34 and 35) represents the earliest Aegean-type material from the site (Fisher 1988, no. 1-18, 20, 43-46).⁷⁵ These are unquestionably transport containers (though extremely refined and decorated) and therefore, considering that they are mostly imported, their presence had to be connected with the import of some goods, among which were arguably organic products such as oil.

It is possible to gain an insight into the considerable differences between Scoglio del Tonno and the rest of the Apulian peninsula by comparing its LH IIIA assemblage with that of Roca, which is more representative of the broader pattern in the region.⁷⁶ In doing this, however, it is necessary to stress that Roca's material covers a wider time-span (i.e. the whole of LH IIIA). As a result, although smaller in size, the LH IIIA assemblage from the Adriatic site is more heterogeneous (as a palimpsest of change in shape dominance) than that from Scoglio del Tonno, where a smaller range of shapes is attested. The chart (Figure 4.3.12) clearly shows open shapes (in particular kylikes) are predominant at Roca, following substantially the same pattern observed in LH I-II imports (compare for instance with Lipari; Figure

⁷⁵ Stylistic similarities between pottery from Scoglio del Tonno and that of Rhodes (mostly for later period, i.e. LH IIIC) and Crete have been noted by various scholars through the years (Hallager 1985; Taylour 1958: 81-137), and compositional analyses seem to have confirmed these suggestions to a large extent (Vagnetti & Jones 1991; Jones et al. 2005; Bettelli 2002).

⁷⁶ Excluding 5 finds (the ones already presented in the discussion related with the occupation of the fortifications see section 4.1) all of the others have been recovered in secondary deposition (mostly in Area IX; see Appendix 1).

4.3.7), while piriform jars (the most popular shape at Scoglio del Tonno), albeit attested, are not comparable in number with those from Scoglio.

Among this heterogeneous assemblage it is possible to recognize items belonging to diverse traditions. While, for instance, the two goblets (id 10634⁷⁷, Figure 4.3.13 and Guglielmino 1996 no.1), the monochrome kylix (id 1182) and the early stemmed bowl (id 11219) are undoubtedly mainland objects, other items seem to hint toward other sources. Among these are also two fragments (Guglielmino et al. 2010a, 22.3, 22.6; from a closed vessel and a cup [Figure 4.1.14]; for the context of this last piece see section 4.1) possibly decorated with motifs (FM 24 linked whorl shell and triton) better attested on Minoan pottery, although not completely absent in other areas (see i.e. Mountjoy 1999: 973 no.7). Without loading with too much cultural significance an individual motif, it is interesting to note how the cup actually represents a pastiche of features from different areas. Indeed, while decoration seems to direct toward Crete, the deep bowl of the vessel is a rather unusual characteristic for LM IIIA pottery and more in tune with coeval development in the Mycenaean world (Kanta 1980: 258; Mountjoy 1986; Popham 1965: 319) and to this extent it is interesting to note that chemical analyses (Guglielmino et al. 2010) suggest for it a local production. This isolated piece may represent the earliest attestation of local manufacture of Aegean-type material at Roca and one of the earliest in the central Mediterranean (the only earlier example being the possible fragments of wheel-turned burnished pottery from Vivara; see Jones 1994: 303-313).

But is not the only instance of technological transmission of this kind in the central Mediterranean during this time-horizon. The start of another local production tradition that entailed use of the potter's wheel, and therefore a technological transfer not dissimilar from that implied by Aegean-type material, is to be assigned to this period, namely Grey Ware (see section 3.2 for an

⁷⁷ Id 10634, the general syntax of decoration is reminiscent of filled field type (of LH IIB, possibly with two narrow bands below the attach of the handle, Mountjoy 1986: 46) and the rim is rather developed (another early feature) but the interior is monochrome and the exterior present a central painted band with a wavy line in added white paint (the first feature is more frequent in LH IIIA1 while the second is rare in both LH IIB and LH IIIA1, see Mountjoy 1986: 37, 51). Also the profile of the bowl is less globular than typical LH IIB shapes.

introductory discussion of this material). This starts at Broglio di Trebisacce and Porto Perone and became much more widespread in the subsequent Subapennine and Protovillanovan phase (Belardelli 1994; Guglielmino 2013).

Overall, during LH IIIA (or the Apennine period), although there are still many sites which continued to present patterns of consumption of Aegean-type pottery similar to those of the previous periods, the role of main nodes within the networks of interaction with the Aegean, some of them at new locations, seems to have now increased. These main nodes are located mostly in the Tyrrhenian as well as in eastern Sicily, while the only major centre in the southern Italian mainland is the site of Scoglio del Tonno.

4.4 The Middle Bronze Age Adriatic: Modes of Production and of Interaction

On the basis of the elements so far described, it is possible to attempt a synthetic assessment of the southern Adriatic that should enable us to make sense of the functioning of Modes of Production and of Interaction in these societies (see Chapter 1) during the Middle Bronze Age. The settlement pattern reveals, *de facto*, a picture in continuous evolution, with two extremes: the small hamlet dispersed in the landscape and the more nucleated long-lasting settlement, which interestingly is located mostly (though not exclusively) on the coast. Despite this dichotomy, it can be safely asserted that during Protoapennine and Apennine times the southern Adriatic was populated by communities relatively small in size.

As suggested by Recchia (2008), the frozen 'snapshot' of the family tragically killed during the destruction of Postern C of the fortification of Roca can provide a model of the typical family nucleus of the Adriatic community (seven

people, two adults and five children, a relatively large nuclear family).⁷⁸ This may or may not have coincided with the predominant residential unit, which might also have been subjected to a certain fluctuation (also seasonal) in agreement with the needs of primary food production.

However, the picture from the analysis of archaeobotanical remains does not seem to suggest the need for an extensive workforce. Wheat and barley were the predominant crops while the use of legumes, entailing more labour-demanding production strategies, although attested since Neolithic, becomes more evident only at a later (Recent and Final Bronze Age) time (Fiorentino 1998, 2010; Primavera comm. pers.).⁷⁹ Such a picture has been recently confirmed by isotopic analyses on a limited sample of skeletal material from sites close to Apulia (Toppo Daguzzo and Lavello in Basilicata), which have also recently suggested the absence of plants such as millet, that are attested, for instance, in northern Italy (Tafari et al. 2009). Furthermore, although the inception already in this phase of intensive agricultural practices such as oil production has been suggested by some scholars (i.e. Cazzella & Recchia 2009), these seem to have been quite exceptional, and according to recent results of pollen analyses (Di Rita and Magri 2009), their consequences, in terms of influence on the surrounding environment, were probably fairly limited. Also, since the material from Coppa (Evans & Recchia 2003) proves only the *use* of oil, it is not possible to rule out completely that this substance, instead of being produced locally, was one of the goods that was circulated by Aegean seafarers. The main diversification strategy employed at this time (but this will continue also in later periods) seems to have been the alimentary use of acorns that, in a landscape with still large forested areas, constituted surely an extremely useful and readily available resource (see section 2.1 and Fiorentino 1995, 1998, 2010; Fiorentino & Primavera 2010). Wild resources are well attested also by the analysis of animal remains. Indeed, although domesticates were undoubtedly predominant, the exploitation of wild

⁷⁸ The main argument is that in a period of danger/stress, closer family ties would be emphasized (hence also creating a refuge-dwelling). This is also attested in many ethnographical examples (e.g. see the Maori example reported by Sahlins 1972: 124-127)

⁷⁹ While cereals required an effort well defined in time, with sowing conducted during the winter and a harvest season during the spring/early summer, legumes demanded instead year-round attention (Fiorentino 1998: 218-220).

animals still constituted, on average, between 20% and 30% of the animal remains belonging to Protoapennine and Apennine contexts (see Figure 4.4.1; data from De Grossi-Mazzorin 2010). These encompassed species that were traditionally hunted, such as deer, small game easy to access, like land tortoises, and, finally, marine animals (mostly but not only seafood; see De Grossi Mazzorin 2010; Wilkens 1998). Such a variable diet with a strong wild component probably did not require complex strategies for the mobilization of the workforce, and was likely to rely on the effort of the nuclear family members.

Overall, the general picture suggests that in the Protoapennine and Apennine southern Adriatic there was not much room for agricultural surplus. The region though, was obviously not completely homogeneous and in some areas it is possible to detect the triggering of embryonic processes of accumulation. This is probably the case in the area around the Tavoliere (Figure 4.4.2), from Trinitapoli up until the Siponto area, where Coppa Nevigata is located. Here, the large agricultural potential of the area (well renowned since antiquity as well as in modern times) created probably the conditions for population increase, as suggested by the fact that a relatively large number of sites has been identified in the area in/around the Tavoliere, even in the absence of systematic surveys focused on the Bronze Age record (section 4.1).

The network analysis (section 4.2) of Apennine pottery has shown that the sites belonging to this area were well interconnected, although overall the amount of 'diversity' seems to surpass the number of connections (i.e. the motifs produced are more numerous than those shared with other communities). Translating the pattern recognised in the archaeological record into anthropological terms, it is probably possible to make sense of it. In Chapter 3, on the basis mainly of ethnographic parallels, I argued that the production of handmade Impasto pottery in Bronze Age Apulia was probably connected with women and that circulation of decorative motifs was linked to some extent with patterns of exogamy (see section 3.5). In this light, if we could assume that the number of motifs represents a proxy for the number of social units and therefore of the relative prosperity of the

communities,⁸⁰ the pattern produced by the network analysis may be read, in the case of Coppa Nevigata, for instance, as related to a fairly rich agrarian community with a relatively low incidence of exogamy.⁸¹ Northern Apulian communities were probably able, through mechanisms of bride-payment and dowry (Friedman & Rowlands 1977), to gather a certain amount of surplus that was funneled into interactions with Balkan communities on the other side of the Adriatic, as attested by the connections present both in metal and pottery production (see section 4.3). These again might also have been articulated through intermarriages, limited economic transactions, as well as through the movement of individuals or small groups for reasons not easy to identify (see Chapter 1).⁸²

Given these considerations, it is possible to understand the important role played by two smaller areas placed at the interstices between the Tavoliere and other territorial zones. The first is Manfredonia and Coppa Nevigata, to the north, at the obvious junction with the maritime-oriented Gargano area, through which probably most of the interactions with the Balkans were mediated (Recchia 2002). The second is Trinitapoli, where are located the hypogea of S. Ferdinando and Madonna di Loreto, that represented the junction with the hilly Murge area to the south, which probably had a lower agricultural potential but plenty of other resources, among which were surely wool and other secondary animal products. Also, the south had a more favourable geographical position with respect to Mediterranean trade networks and this explains the large number of exotica present in the *Ipogeo dei Bronzi* and *degli Avorii* that are not connected with the Balkans, among which are Pertosa swords (Tunzi Sisto 2010a, no. 6.3-5, 6.8), similar (although not identical; see Bettelli 2006) to objects found in the cargo of the Uluburun shipwreck (Bettelli 2002: 133), as well as some faience beads

⁸⁰ A similar point in relation to diffusion of decorative motifs in pottery and population estimate was made by Shennan and Wilkinson (2001) in relation to Early Neolithic Bandkeramik pottery in Europe.

⁸¹ This observation fits well also with the (conservative) population estimate proposed by Cazzella & Moscoloni (2001), which suggests an overall population at the site of about 200 people. According to the influential proposal by Wobst (1974) such a number of inhabitants is not enough for a community to be completely endogamous, although is also not very distant from the 350 people threshold suggested as the minimum size which allows not to resort necessarily to inter-marriage.

⁸² The presence among the Balkan items recovered in northern Apulia of personal items such as weapons or ornaments is a strong hint in this respect.

(Bellintani 2010a). The relatively high level of continuity expressed by Trinitapoli (an occupation protracted for about 250 years; Peroni 1999) suggests that here perhaps, the process of capital accumulation had already started to transform the elite of the Apulian community into something different, akin to the so called *chiefly lineage* described by Friedman and Rowlands (1977), which represents the first step towards the institutionalization of power relations. This transformation and the related process of concentration of power is not likely to have occurred without any opposition on the part of neighbouring communities and the elite of Trinitapoli is likely to have made use of violence in order to defend its rights/privileges. This aspect, rather than the practice of unspecified pirate activities, as suggested by Bietti Sestieri (2003), is more likely to provide a credible explanation for the important role played by warrior symbolism in the funerary ritual attested in the *Ipogeo dei Bronzi*. This same process of transformation may have triggered in nearby communities elements of 'cultural' resistance and perhaps the start during the Apennine period of a cremation cemetery (the egalitarian ritual *par excellence*)⁸³ at the nearby site of Pozzillo can be explained in these terms.

So some surplus was being accumulated and, at least in the north, this was probably connected with interaction. The importance of this flow, however, need not be overemphasized. The overall volume of objects coming from the Balkans as well as the limited scope of their diffusion, indicate the overall limited scale of this phenomenon. After all, as noted before, the Adriatic islands, the 'bridge' between the eastern and western shore (see section 2.3), continue to completely lack any trace of occupation dating to the Middle Bronze Age. This lack can be explained only in two ways. One possible explanation is that a more efficient maritime technology, i.e. sailing, was already present in the central Mediterranean at this stage and that this made stopping at these islands unnecessary. However, as far as this hypothesis is concerned, we do not possess any trace hinting toward this

⁸³ There are, of course, cases in which incineration is used for individual of high status (i.e. the central burial at the Iron Age Heroön at Lefkandi; see Dickinson 2006: 187-188) but in these cases, normally, other elements (e.g. rich grave goods or a lavish ritual) are used to highlight this aspect.

possibility.⁸⁴ A more likely alternative is that the flow of people and/or goods crossing the Adriatic was so ephemeral (in any case not comparable to that of the third millennium BC) as not to leave any recognizable trace during this period. In support of this last hypothesis, the extraordinary nature of finds from Trinitapoli and (to a more limited extent) from Manaccora can be recalled. Although rich finds here were probably partly due to the contextual specificities of these two sites (natural and artificial cavities in the rock, which limited post-depositional transformations), it is interesting to note that even important, favourably located, coastal settlements in northern Apulia (e.g. Coppa Nevigata), do not exhibit the same opulence as Trinitapoli and Manaccora in terms of exotic finds.

The further development of the processes of surplus accumulation that can be suggested for Northern Apulia, however, was probably limited by the start and growth in intensity of Aegean interaction to the south, which put into circulation capital that would have been otherwise kept locally to feed local competition. Early Aegean encounters with the central Mediterranean were fairly varied in nature. A first macroscopic difference is between interaction in the Balkan area and the rest of the Mediterranean. In the Balkans and most notably in Albania, there seems not to have been any caesura between pre-Mycenaean and Mycenaean-age relations. These, according to what is possible to glimpse through the funerary record, continue to be characterized by the irregular establishment of directed connections with local big men in the quest by early Mycenaean petty chiefs for copper. As a consequence, the material record which attests to these encounters is still almost exclusively constituted by prestige bronze weapons (mostly swords; Bejko 2009). On the other side of the Adriatic, in Apulia, Aegean connections at the start were mainly non-directed and occurred as happenstances on the way towards the Aeolian Islands, which were probably the main aim of these expeditions. The procurement of raw materials, as suggested almost invariably by any scholars working in the central Mediterranean, is indeed likely to have constituted one of the chief rationales for these early long-range voyages (section

⁸⁴ As for traces of sailing ships in the central and western Mediterranean (see Broodbank 2010 on the general topic) a problematic piece of evidence is constituted by two ship representations from Monte Grande (Castellana 2000: 18, 45 fig. 13, 8). The main problem resides in the non-closed nature of the context of recovery (see section 4.3; a similar criticism can also be directed to another purported ship representations from Ithaka; see Kontorli-Papadopoulou et al. 2005).

2.3). These materials might have included substances as different as copper, sulphur and alum, and for all of these we have clear hints of their importance for the Aegean world also in the Linear B record (La Rosa 2005; Michailidou 2008; Perna 2005). As for interactions with southern Italy, my suspicion is that goods connected with textile production might have been even more important than metals. The cultural and economic importance of textiles is a much-neglected aspect of the study of prehistory (as well as of history) that only recently has begun to acquire due attention through the work of various scholars (i.e. Burke 2010; Cutler 2013 forthcoming; Gleba 2007). In order to understand the general importance of this topic, suffice here to note that, in a broader historical perspective, the whole 18th (AD) century industrial revolution has been based on textile production. Returning to the point, in a society as competitive and as profoundly imbued by Minoan 'fashion' as mainland Greece during the Shaft Grave period, the use of elaborate textiles probably constituted an immediate (and effective) aggrandising strategy (Burke 2010; Burns 2010; Graziadio 1998; Wright 1995).

If the rationale of proto-Mycenaean seafarers is overall well understood, the ways through which they came to know about the existence of, for instance, alum resources, in the far-off Tyrrhenian sea is a question much less easy to answer. One possible answer is that these early voyagers were aware of the connection existing between obsidian and alum on the basis of the existence of the same association on the closer island of Melos (McNulty & Hall 2001; Pittinger 1975). Since obsidian was still used in Protoapennine times in Apulia (e.g. at Cavallino as well at Bisceglie; see Cataldo 1995; Pancrazzi 1979 :27), and was a still important component of the stone tool equipment in Mycenaean Greece (Kardulias 2007; Parkinson 2007), it is plausible that this was the thread that led Aegean ships toward the Tyrrhenian sea in the first instance.

Among textile-related goods is probably to be placed also purple dye, or *po-pu-re-ja* according to the Linear B tablets (Palaima 1991), whose production at the site of Coppa Nevigata is attested at a surprisingly early period dating to the 18th century BC (slightly after the earliest attestation of its production on Crete recently

dated back to 2000 BC; see Cazzella et al. 2005; Morgan et al. 2008), and that probably constituted a feature in common between the northern network previously described and the early Mycenaean trade to the south. In this respect, it is not coincidental that the purple dye production is probably attested or hinted at sites with evident traces of interaction with the Aegean world such as Scoglio del Tonno, Scalo di Furno or Roca and which probably mediated the circulation of this good to the south and to the east (Guglielmino 2008). Also, with respect to purple dye at Coppa Nevigata, I do not see any specific reason why the production had to be limited to the dye itself and not have involved the realization of finished textiles. Indeed, northern Apulia probably possessed all the necessary material to accomplish the whole cycle, from salt that was necessary in the production of the dye (as reported by Pliny *Nat. Hist. IX,62*) and that was perhaps produced at the nearby site of Vasche Napoletane (Tunzi Sisto 1995, 1999: 133), to wool that was probably readily available at the site as well as through exchange with the communities of the Daunian Sub-Apennine mountains. The possible existence of elaborate textiles is perhaps hinted in the ceramic production, as suggested by the complex band motifs on mature Apennine pottery (Macchiarola 1987).⁸⁵

The communities with which early Aegean seafarers came into contact during their travels further to the west were profoundly different in nature. In the Tyrrhenian sea they encountered the Capo Graziano and (later on) Milazzese communities of the Aeolian islands. Due to the early importance of the archipelago in the obsidian trade these were, fundamentally, maritime cultures for which sea-going was a well established activity since Neolithic times. There is extensive evidence which confirms this 2nd millennium BC from the Pignataro di Fuori wreck

⁸⁵ The relative scarceness of loom weights and spindle-whorls at Coppa noted by Cazzella & Recchia (2005: 143), has led them to downplay textile production at the site. While it is entirely possible that this activity was not particularly important for the economy of this specific site (but this is potentially contradicted by the fact that sheep/goats are the best represented domesticates in the faunal assemblage and have high adult mortality rates; see Siracusano 1991: 207-210, fig.2) there are also other clay objects which may be connected with weaving that have not been taken in consideration (i.e. spools, as suggested also for the Aegean by Rahmstorf [2003]; see Cassano et al. 1987: 178, V10). Also, it is necessary to bear in mind that what we are dealing with is a household-level production that is not expected to leave substantial traces such as dedicated areas within habitations (these will start to appear only in the Iron Age; see Gleba 2007; Mistretta 2004). Finally, in Bronze Age Italy textile-related objects were also made in wood and therefore rarely survived in archaeological deposits (all the examples of wooden spindle-whorls come from the Terramare where they were preserved due to favourable conditions; see Mistretta 2004: 176).

dating to the Capo Graziano period (Bernabò Brea 1985), to the continuous relations between the islands, Sicily and Italy (both southern and, to a more limited extent, central; see Martinelli et al. 2010; Tusa 1994). Things appear to have been rather different in Apulia where, having at their disposition a large extent of cultivable land, local Middle Bronze Age communities were surely not equally maritime-prone as their Tyrrhenian equivalents.

This is, to some extent, an oversimplification and before being accused of geographic determinism, it is necessary to note that the actual picture was probably more varied. The network analysis for the Protoapennine period has indeed clearly demonstrated a sub-group within Apulia characterized by intense interaction and composed entirely of coastal sites, mostly located to the south (which has also less arable land than the north, see section 4.2). Among these were also some of the most central settlements in the region, according to the network of the distribution of Protoapennine and Apennine motifs on Impasto pottery. Interestingly, many of these central sites were also among the first to be reached by early Aegean seafarers. In other words, communities that were included in the Aegean network during the Middle Bronze Age coincided mainly with those central in local interaction.

Given the relatively low chronological resolution of Impasto pottery and the dependency of Italian chronology on the Aegean one, at present it is not possible to assess beyond any doubt whether these communities were already central before the first contact or whether they became central as an outcome of Aegean interaction. The case of Scoglio del Tonno, however, an extremely central site during Protoapennine times that will enter into contact with the Aegean world only in Apennine times (section 4.2), suggests that perhaps the first option is the more likely.

As has been said, Aegean interaction in Apulia was mostly 'on the way' to more distant places, a by-product of other objectives and other routes. Such a situation, in general terms, is not deprived of favourable occasions to be exploited by local communities and indeed there are some traces of early activities of local

intermediaries well integrated within a personal web of relations. This is possibly the case of the individual in tomb 12 at Torre Santa Sabina, who was buried with a rich furnishing of Aegean-type material. While the majority of the material suggests an Aegean connection, a limited number of objects as well as the ritual of the tomb, are more reminiscent of Balkan parallels, either absorbed directly from the other side of the sea, or acquired through the mediation of the northern network discussed above. In any case, Torre Santa Sabina is an isolated exception and its importance need not be over-emphasized. Also, even in this case, the importance/influence of this intermediary and his lineage seems to have been relatively ephemeral. As noted by Onnis (2010), the Aegean-type material in the tumulus is limited to the LH IIIA period, while that coming from the related settlement, and whose introduction in the local sphere of consumption was probably mediated by other groups, goes well into LH IIIB and C.

By Apennine-LH IIIA times, Aegean relations in the broader central Mediterranean seem to have been divided according to well defined sub-networks, each of which had at least one key site (i.e. what has been referred to in the literature as *gateway communities*; Hirth 1978), and which, as previously argued, relied heavily on local interaction for capital accumulation. Among these key nodes was now also an Apulian site, Scoglio del Tonno. The prevalence of closed containers (sections 4.1, 4.3) at this site relates quite closely with patterns at important nodes elsewhere in the central Mediterranean (e.g. Thapsos; see section 4.3), and it seems that parts of Apulia were perhaps now more thoroughly integrated in the Aegean network than it was in the previous timeframe.

More generally, the existence of these sub-networks indicates a more careful and programmed approach to expeditions to the west which can possibly mirror socio-political changes occurring in mainland Greece with the establishment of the palatial polities. With this I do not mean to intend any direct palatial involvement in western trade (see section 1.3 further on this), but rather that the renewed climate of political control/pacification had probably allowed those involved in the western travels to plan their journeys in a more 'agreed' and less casual form. Also, there was probably a more regular/reliable demand from

the 'new' palatial markets in Greece for western products, a fact that might have further triggered an increase in the organization of the flows of goods.

From the point of view of Aegean actors, distance between each area of contacts seems to have become a critical factor. Coming into contact only with communities that were at a certain distance from one another allowed Aegean seafarers to maintain a position of power in the negotiation of any relationship/transaction and to bargain for a better deal among a number of different potential partners.

To sum up, despite some privileged communication between various coastal sites, and the presence of active, small scale, local and trans-Adriatic networks, this was probably not enough to trigger an increased investment of resources in Means of Interaction. Even in the most 'promising' area for this period, in north Apulia (Figure 4.4.2), the direction of the connections attested, i.e. mostly going from east to west, suggests (as for the Cetina interaction), that Balkan communities were more active when compared with western ones that were mostly receiving items and stylistic features. Also, through the Middle Bronze Age, despite the importance of coastal sites, occupation continued to have a strong backbone in the dense web of small hamlets recently identified (Recchia & Ruggini 2009). An echo of this continuity is probably seen in the funerary record which, with very few exceptions, continues to exhibit the characteristics of Protoapennine times through the whole Middle Bronze Age, namely a close attention to land control (section 4.1; see Orlando 1995).

Interaction, which probably followed dynamics of inter-community marriages similar to those highlighted for northern Apulia, was mostly land-based, and carried out without the help of efficient transport animals (e.g. donkeys), whose earliest attestation dates to the Subapennine period (Bökönyi & Siracusano 1987).⁸⁶

⁸⁶ A possible indirect hint of the use of the horse (more specifically for riding) during this period is offered by deformation presented by human skeleton recovered in the Toppo Daguzzo chamber tomb (section 2.1) albeit, given the elite status of this burial, it is not possible to imply a generalized

In the light of all these elements, it is possible to assert that sites on the southern Adriatic were probably relatively weak in Relations of Interaction, when compared to their seafaring partners. This does not imply some kind of World System-like dependency, or even a strong influence of the Aegean world over Adriatic communities, not only because of the relative lack of interest in this part of the Mediterranean (at least until the end of LH IIIA), but also because asserting this would mean not having understood the most important aspect of these interconnections, namely personal relations. Voyaging over long distances probably obliged seafarers to establish and cultivate a series of amicable relations with people from communities in key positions along the route and that could offer vital logistic help if needed. The means through which these relations were created and maintained was probably the exchange of material items, an exchange in which the local (the host who was helping the mariners) was always the ‘winner’.

The attractiveness of imported material, as well as the strength in Relations of Interaction of Aegean seafarers in the eyes of Apulian communities, resided neither uniquely in the high quality of their pottery nor in its presently perceived technological superiority. Rather, it may have been grounded in the magic ability of people involved in these exchanges, through the use of sailing ships, to appear on the horizon with vessels larger than any ever produced locally and to connect distant places gathering material from the most disparate sources (of which most of a community like Roca’s inhabitants probably had little geographic awareness). The social prestige of travelling over long distances was the real valuable traded in the early encounters between Aegean seafarers and Apulian communities, and local lineages embedded in their (more or less intense) competition for primacy within the community, prized this *mana* as a key good.⁸⁷ The early imitation of items with such powerful talismanic aura was the obvious subsequent step that we

use of this animal which was perhaps only employed in high status activities such as war (Recchia 2010a).

⁸⁷ The process at work, in the end, was structurally not that different from that occurring in mainland Greece at a much larger scale during the earlier timeframe i.e. in pre-Mycenaean times, when, as noted by Burns (2010: 76), local chiefs amassed a wealth of objects from the most disparate origins in the conviction that: “it is the multiplicity of materials that are the most significant suggestive of diverse international links and a whole world of possibilities”.

see now in its embryonic stage (Broodbank 2000: 249-53; Helms 1988: 94-110; for similar views in other contexts see Kiriatzki et al. 1997; Nakou 1995: 13-15).

Putting aside the Torre Santa Sabina exception, we know very little about the actual social practices entailed by interaction between the Aegean visitors and the local communities of Apulia at the scale of the individual site during the Middle Bronze Age and, unfortunately, for this period the case-study of Roca is of little help. In the absence of information, it is possible to suggest that it followed the same pattern attested at other early sites around the Mediterranean, with the incorporation of a limited number of foreign items into daily use and with the occasional appearance of these goods in the funerary domain (section 4.1). It is undoubtedly tempting to connect the early attestation of the kylix, the quintessential drinking cup of the Mycenaean age, with the more substantial traces of communal consumption of wine and food that we will see at the same site in a later period (see Chapter 5). Such an exercise, however, is quite dangerous as the evidence is admittedly very thin, even considering that kilikes are extremely rare in the western and central Mediterranean and almost completely absent in the rest of Apulia.⁸⁸

We know little also about the reasons that eventually led, in Apennine times, to the destruction of Roca. It is possible that this event is to be connected in some way to the emergence of the highly Mycenaeanized settlement of Ephyra/Xylokastro in Epirus (Tartaron 2004) and to an extension (through warfare) of the political sphere of interaction of some peripheral mainland polities (see 1.2, thus confirming the substance of Guglielmino's hypothesis, see Guglielmino 2006) or, likewise it could have been the outcome of internecine warfare between different Apulian communities (as suggested by Cazzella's general model, see Cazzella 2009). Traces of warfare are indeed well attested in the region (e.g. the numerous weapons discussed in the previous pages, as well as fortifications) and Roca is not the only example of violent destruction dating to the Middle Bronze Age. A violent end has been suggested also for Protoapennine

⁸⁸ The only exceptions are at Cozzo del Pantano and Thapsos in Sicily and Lipari (Taylour 1958: 56, 62; Vianello 2005: 127-130).

Coppa Navigata and in the same period the site of Porto Perone is abandoned, although in this last case it is not possible to recognise traces of warfare (Lo Porto 1963: 372-373; Recchia 2010a: 99). What we do know, however, is that in LH IIIA, after Roca's destruction, there remained another significant node of interaction with the Aegean world in southern Italy, namely the site of Scoglio del Tonno near the future colony of Taras.

Chapter 5

From direct contact to Brownian motion: The southern Adriatic during the Recent Bronze Age

5.1 The individual community during the Recent Bronze Age

At every level, the Recent Bronze Age (Table 5.1.1) represents a period of great importance in determining modes and outcomes of interaction in the southern Adriatic. As for the preceding phase, the discussion will focus on the three concentric levels of analysis, starting from the smallest, that related to the individual community. Again, as in Chapter 4, a brief overview of settlement patterns of Apulia will precede the analysis of the evidence of the main case study and will allow a better appreciation the specificities of this context.

Archaeological traces of the southern Adriatic community

A first aspect to be noted with respect to occupational trends in the area is the strong continuity of settlements. Only 5 new sites are occupied ex-novo during this phase, whilst the remaining 69 have yielded traces connected with previous occupation. Partially connected with this, is another pattern already observed by various scholars (i.e. Bettelli 2002; Bietti Sestieri 2010) represented by the strengthening of the process of site 'selection', supposedly started already in the preceding Apennine period. Bearing in mind the chronological problems highlighted in Chapter 3 (see section 3.2), although the number of sites declines from the previous period, if we incorporate in the evaluation of occupational trends the different duration of each time slice of Apulian Bronze Age (see Chapter 4), things look different. Most notably, not only is site reduction from

Protoapennine to Apennine only apparent, but, in terms of number of sites per year, the difference from Apennine to Subapennine times, although undoubtedly real, is anything but sharp (see Table 5.1.2). At the same time, this trend does not seem to be attested equally in the whole region. The area seeing the most intense de-population (if we are allowed to use this term) is the hinterland (see Chapter 4 for definition of the various areas) and, to a more limited extent, the semi-coastal, while the zone up to 5 km from the coast actually experienced growth in the number of settlements (Figure 5.1.2). Among Recent Bronze Age sites, those endowed with fortifications (mostly built in the previous phases) are a greater share of the total, reaching about 27% versus 20% in the previous Apennine phase. If the picture at a region-wide level appears to be rather nuanced, however, focusing only on the well explored area around Cisternino and Ostuni (near Brindisi), the trend seems to emerge more clearly. Indeed, of the 16 sites identified by various scholars (Coppola 1977, 1983; Recchia & Ruggini 2009), only a handful bear traces of Subapennine occupation (6 overall, see Appendix 2).

Another major aspect recognizable within the Recent Bronze Age of Apulia relates to funerary practices. The use of dolmens and mounds, which was typical of earlier (mainly Protoapennine but also occasionally Apennine, see Chapter 4) phases of the Bronze Age, seems now to have definitely vanished. The evidence related to tombs is admittedly very scarce and limited mostly to the northern and central part of the region. The use of caves, both for burial and cultic practices, continues also during this period (i.e. at Manaccora) and, apart from these, there seem to be two other types of funerary contexts. The first is constituted by large underground tombs, such as those at Trinitapoli (discussed in more detail in the previous chapter), that continue to be used at the beginning of this period.⁸⁹ Along with large hypogea, the use of small chamber tombs often defined *a grotticella* in Italian, continues also in this period, but these are only attested by the ephemeral traces in one at Torre Castelluccia (Figure 5.1.4), not far from Scoglio del Tonno.

⁸⁹ Another example of this kind of monument is possibly the tomb of Luogovivo near Taranto whose use, however, seems to be limited to the Middle Bronze Age alone; see Tafuri et al. 2008.

Cremation cemeteries represent the other main category and are recorded at two locales in the region, most notably at Contrada Pozzillo near Canosa (Figure 5.1.3; whose occupation started already during Apennine times) and at Torre Castelluccia, where it is possible to recognize the contemporary use of different burial practices. To this evidence it is possible to add the likely remains of a cremation tomb recovered near Molinella in the Gargano, which had as a grave good a sword ritually killed (i.e. broken in two pieces and bent; see Figure 5.1.5 and Bietti Sestieri 2010: 158; Cazzella 2010).

As far as internal organisation is concerned, considerable changes are attested at various sites around the region. At Coppa Nevigata fortification walls are completely abandoned by the end of the Apennine period. The defensive needs of the the settlement towards the hinterland are now fulfilled by a ditch, some 10m wide and up to 4m deep, which remained in use until the Early Iron Age. The overall size of the site seems to remain the same as in the previous phases (see Figure 5.1.6 no.1-2 and Cazzella et al. 2004; Recchia 2009).

If Coppa Nevigata (and perhaps also Roca, as we shall see), does not seem to expand, other sites experience an increase in the area occupied. At the southern corner of the region, at Santa Maria di Leuca, the settlement of Punta Meliso that started during the Middle Bronze Age seems to have been extended to the lower terrace of the promontory on which it was situated (Orlando 1997b). Conversely, at Porto Perone close to Taranto, after a period of abandonment dating to the Apennine period, the settlement is re-settled and now occupies also the promontory of Satyrion, overlooking the bay where the lower settlement was located.

Going back to Coppa Nevigata, the major novelty within the spatial organization of the settlement is the creation of small roads (Figure 5.1.6 nos. 5, 10) along which seem to be placed a series of small buildings interpreted as habitations (Figure 5.1.6 nos. 12). Unfortunately, too little has been explored/preserved to assess how dense occupation during this phase was.

More complex structures are attested at the Adriatic site of Torre Santa Sabina (the site of the Middle Bronze Age tumulus discussed in Chapter 4). These can be identified in the two large semi-underground huts excavated in the 1990s (Coppola 1998; Coppola & Raimondi 1995), as well as perhaps in the complex alignment of postholes with an apsidal profile, discovered near the coast in the main area of the settlement (Figure 5.1.7). Although this part of the site has been completely eroded and has little to no traces of closely datable occupation (Coppola 1977, 1983), it is probable that the latter belong (at least partially) to the Subapennine period.

Recent Bronze Age at Roca: abandonment or continuity?

Within this general framework, Roca's situation during the Recent Bronze Age started to diverge substantially from the bulk of the Apulian evidence. As has been highlighted previously, the violent destruction at the end of the Middle Bronze Age left tangible signs in many areas of the settlement (Pagliara et al. 2007; Scarano 2011).

Excluding one possible exception (no. 12 in D'Amico 2003), none of the small underground contexts recognised in the previous phase bear any trace of occupation related to this period and, as a matter of fact, Recent Bronze Age occupation at the site seems to have been limited to the strip immediately inside the destruction debris of the Middle Bronze Age fortifications which are neither rebuilt nor restored. Naturally enough, post-depositional factors may be claimed as an explanation for this situation considering that in fortified settlements of southern Italy the area around the walls is normally less subject to erosion and therefore more likely to be better preserved. However, the very nature of these contexts (fill of pits in the bedrock) is likely to have prevented major erosion. Also, occupation is indeed attested in some of these deposits for the later Final Bronze Age. The lack of Recent Bronze and the presence of Final Bronze occupation is reminiscent of what it has been seen at a landscape level through the systematic survey of the Cisternino area. Nevertheless, the fact that at Roca traces of Recent

Bronze occupation are indeed attested in the area around the walls can perhaps indicate that what was happening at this last site may be different in nature. It seems, therefore, not too hazardous to assert that, at least as far as we can infer from the areas explored, the site experienced, in the passage between Apennine and Subapennine times, a degree of contraction.

The earliest phase at Roca belonging to the Recent Bronze Age is Phase II of Area X (see Table 3.1.1 and Figure 5.1.9) and dates already to a mature stage of the period. Already at this stage Impasto pottery features are attested that will become more popular later, such as grooved decoration and horned rolled handles, whilst elements typical of the initial stage of the Subapennine period (i.e. cylindrical and bi-lobed projection of the handle) are not present (Figure 5.1.8). This, however, does not necessarily mean that there was a hiatus in the occupation of the site.

The deposits at the base of the long sequence in Area IX (coeval or perhaps slightly later than Area X, Phase II) appear to be extremely puzzling from a chronological point of view (Figure 5.1.10). Here LH IIIB1 material has been found in secondary deposition together with even earlier vessels (dating to LH IIIA and discussed in Chapter 4 with an overall amount of 7 vessels; see Figure 5.1.11) and later Subapennine and Aegean-type material, as well as scarce remains (literally a handful of sherds as far as the area sampled for the analysis of Impasto pottery is concerned) of what has been interpreted in the first instance as Middle Bronze Age material. On the basis of a series of considerations (both those by Recchia and Ruggini previously discussed [section 3.2] and others),⁹⁰ however, it is perfectly possible that this (admittedly scarce) Middle Bronze Age material actually belongs also to a later period, i.e. corresponding to the early Recent Bronze Age.

Post-depositional modifications seem to have played an important role in the formation processes of the deposits belonging to Area IX which, as has been

⁹⁰ The partial chronological overlapping of late Middle Bronze Age and early Subapennine material does not rely uniquely on observation related to the Cisternino area (Recchia & Ruggini 2009). Continuity between these two phases has been identified also in other Apulian contexts. This is the case, for instance, with the production of decorated pottery of Apennine tradition which has been attested also in the early Subapennine (G group) levels of Coppa Nevigata (Cassano et al. 1987; Cazzella et al. 2004).

mentioned before, consist of an alternation of crushed limestone pavements (i.e. containing very little to no material) and an occupational level rich in anthropogenic remains (both archaeological and bioarchaeological). The importance of post-depositional transformations is apparent considering that, despite the sequence covering most of the Italian Late Bronze Age, the date of Aegean-type material is mostly centred in the period around LH IIIB2 and LH IIIC Early (Figure 5.1.12 based on a more limited sample of vessels datable within the timespan of one century).

This feature can be clearly demonstrated also by analysing the distribution and dispersion of sherds belonging to the same vessel through the phases. As for distribution, the sherds in the map (Figure 5.1.13) belong to all the different phases recognized in the sequence of the area and have been positioned, with a margin of approximation of about 4m, using as a grid the medieval rooms which have been, since the beginning of the excavation, the minimum common spatial record for the location either of the individual artefacts or their context of retrieval.⁹¹ Two main concentrations can be observed: one to the north-west and the other to the south-west. Material has been moving primarily from NW to SE (Figure 5.1.14), most notably from the higher area around the wall (on top of the destruction debris of the Middle Bronze Age fortifications), down to the interior of the settlement.⁹²

The excellent state of preservation and the high level of completeness, in particular of material of phase 1 (see Figure 5.1.15), is not compatible with its presence on standard floor levels and seems to indicate that they did not move much in space. This is demonstrated by the diachronic comparison of EVE, the estimated vessel equivalent index based on the percentage of a vessel, as well as on the ratio between diagnostics and non-diagnostics (on the basis of the simple

⁹¹ The approximation is not only indicated by the layout of the rooms as sherds' positioning has often been more precise (for instance when sherds indicated a relative location within the room, i.e. between room a and b or south of room c and so on). This work has been accomplished as part of an INSTAP-funded project aimed at the study of the assemblage of Aegean-type material of Area IX in collaboration with Vincenzo Spagnolo from the University of Salento.

⁹² Sherds' movement was computed through the use of the linear path function of the ArcGis software.

consideration that the less a vessel has been moved through space, the more complete and the more likely it can be identified at a shape level). The last ratio indicates for Phase 1 the striking proportion of 38% of diagnostics, suggesting that perhaps the preliminary interpretation of the excavators which saw Phases 1 and 2 as involving culturally structured depositions might hold some truth, at least as far as Phase 1 is concerned. The general decrease of the indicators of residuality just presented, indicates that this interpretation cannot be considered valid also for the other phases, which are undoubtedly mixed with material in secondary deposition. Taken all together, these elements seem to suggest that a good portion of the material ended up in its final stratigraphic position in the sequence of Area IX through redeposition. According to the main direction of the dispersion of the material, primary contexts were probably originally located on top or immediately inside the debris of the Middle Bronze Age fortification, and close to the area to which most of the material seems to have moved. This original deposit was finally 'cleared' only in a final moment of the Recent Bronze Age, in Phase 5, when that area was occupied by the new walls (see below and Chapter 3) and this would explain also the numerous joins between Phase 1 and 5 contexts (about 20 vessels). The material, together with the soil, was likely to have been employed to raise the level of Area IX and to prepare for the new pavement of each phase.⁹³ Acknowledging the existence in the area of these dynamics, however, does not mean that the composition of the previously defined occupational layers is entirely due to secondary accumulation. On the contrary, the very fact that is possible to follow a certain chronological progression from Phase 1 to 5 indicates that indeed *in situ* material was also present.

Aegean-type pottery in the earliest Recent Bronze Age occupation (Area X phase II and Area IX phases 1-2)

Returning to Area X in Phase II, from a structural point of view, there are no clear buildings associated with this phase. One possible wall has been identified in the

⁹³ Such an interpretation differs substantially from the preliminary one advanced by the excavators (see Pagliara et al. 2008) but it stems from a more systematic analysis of the finds.

western portion of Area X and to the east of it, two different deposits have been distinguished in the western (5741) and eastern (4042) half of the trench. These two deposits were mixed and included both material *in situ* and material from the destruction of the structures used as fill. Overall, 23 families of sherds of Aegean-type pottery have been recovered from the Phase II levels (Table 5.1.3), for only one of which it is possible to decisively distinguish the shape. The majority of pottery (15 vases) come from 4042 where both medium-small and large closed shapes are attested, among which is also an example of a large hydria/jug, fairly well preserved (nearly the whole rim plus one handle and part of the body), which should date to LH IIIC Early, decorated with bands plus a reserved triangle on the handle (id 15 see Appendix 1). Other small fragments of the same vessel have been also found in the Phase III deposits. The remaining Aegean-type pottery comes from the fill of a posthole in the central part of the trench, as well as from the area around the wall, where medium-small open shapes are also attested.

In Area IX, Phase 1 and 2 were distinguished during the excavation and this distinction will be maintained at the level of quantification even if, as has been seen, it is always necessary to bear in mind that we are not dealing with floor-levels, although, as contexts, they do show some depositional coherence.⁹⁴ At a quantitative level, some sort of chronological difference between the two assemblages can be detected. Indeed, while in Phase 1 kylikes are overall well represented (as much as deep bowls), in Phase 2 they are almost completely absent and deep bowls represent the main drinking vessel (Figure 5.1.16). The overall count of families of sherds of Aegean-type material recovered in Phase 1 is 86 (including residual earlier material for a total of 841 sherds), 53 of which are unfortunately not diagnostic to shape (see Table 5.1.4-5). Overall Aegean-type material constituted about 3% of the total pottery assemblage calculated on the basis of the analysis of the diagnostics of the Impasto sub-sample (see Figure 5.1.17). From the functional point of view open shapes predominate, suggesting an interest in the use of the ceramics in themselves rather than in their contents. Despite this predominance, however, a few significant large closed vessels,

⁹⁴ The recognition of a large number of joins between the two layers (11379 and 11349) provides further confirmation for the need to treat these two sets of material with caution.

containers for large quantities of liquid substances, are also attested. Among these, large examples of amphorae/hydriai can be identified. Particularly interesting is the attestation of a number of coarse vessels which suggest the existence of considerable connections between Roca and the wider Aegean trade network of the mature palatial period, such as coarseware stirrup jars (which, according to chemical analyses by Jones, appear to have been produced in western Crete, see Guglielmino et al. 2010), and a very large belly-handled amphora similar to the example recovered by Lo Porto at Porto Perone (id 11469; see Lo Porto 1963: 336 no.14, fig. 52). Also interesting is the presence of unpainted dippers, the class of pottery ubiquitous in domestic contexts of mature Palatial times in Greece (but very rare in the Central Mediterranean), which are recorded almost exclusively in this phase (an isolated example has been also retrieved in Phase 5 but it might well be in secondary deposition given the depositional dynamics previously discussed).

The subsequent deposit, Phase 2, contains the largest amount of Aegean-type material ever found at Roca. In this phase this class of material represents about 3.6% of the overall assemblage. Open shapes again dominate and among them it is possible to note an overwhelming majority of deep bowls and kraters, which with more than 20 vessels, constitutes about 55% of the Aegean-type assemblage (see Table 5.1.5 and Figure 5.1.16-7).⁹⁵ As is well known, these two shapes have a specific significance within the Mycenaean repertoire, as they appear to be unambiguously related to the consumption of wine. The presence of wine in this context is also emphasized by the retrieval of an individual grape seed. As suggested by scholars such as Borgna (2004: 265) and Podzuweit (2007: 57-69), ring based kraters and deep bowls represent unequivocally a drinking set where the large vessel reflects the shape of the individual cup at a larger scale (or vice versa, for the krater see also Morris 2008).

Other kinds of drinking sets (normally 2 to 3 identical vessels), are also attested in the assemblage and, again, mostly comprise deep bowls and kraters.⁹⁶

⁹⁵ A function partially analogous to that of kraters can probably be assigned to stemmed bowls, which are also present both in Phase 1 and 2 assemblages (see Table 5.1.14 and Figure 5.1.16).

⁹⁶ These are not limited to Phase 1 and 2 alone. The complete list (the vessel number [id] in Appendix 1 is followed by the phase number) include: 504/10949/10644 Ph. 4; 10779 Ph. 3/10940

According to Nordquist (1999) as well as other scholars, this feature is characteristic of feasting assemblages in Greece since the Middle Helladic, and similar patterns are also attested in Crete (i.e. at LM Kommos, see Rutter 2006: 458-459 no.40/8-10).⁹⁷ Significant is also the almost complete absence of vessels which in Mycenaean contexts are considered as the typical food-serving forms such as, for instance, shallow angular bowls (FS 295, represented by a unique specimen recovered in Phase 2 id 10617, Figure 5.1.19).

Different pots, different uses (Area IX, Phases 1-2)

Among the Impasto pottery, because of the structural differences as well as those in size and in breakage patterns between closed and open shapes, it is not possible to precisely assess which shape was the most recurrent. However, what is reasonably possible to establish in approximate terms is which shapes are the most frequent within the two basic categories of open and closed. Not surprisingly, the most popular open shapes attested in the first two phases are cup/bowls (*Tazze/Ciotole* in Italian, for a functional assessment of various shapes within Impasto pottery, see Recchia 2004) whose smaller examples are normally considered drinking vessels whilst larger ones are normally connected with food preparation and consumption. Among closed shapes, well attested are large shapes such as necked vessels and, particularly, *olle* (bucket shaped closed vessels of various sizes) generally functioning as storage containers (Figure 5.1.20). Large bowls (*Scodelle* in Italian), suitable for food processing/presenting are also present in the assemblage in small numbers and some of the smaller *olle* can be also used for these purposes. Also, observing shapes attested from a non-quantitative point of view (i.e. paying attention only to what is attested and not to its proportion within the assemblage), it is possible to notice that Phase 1 is characterised by the presence of shapes with very specific usages, again possibly connected with food processing such as, for instance, vessels with an internal ledge (*vasi con listello* in

Ph. 5/10278 Ph. 4; 10826 Ph. 2/10827 Ph. 2/ 10275 Ph. 1; 10639 Ph. 2/10638 Ph. 2/ 11660 Ph. 5; 10273/11201 438/127/10619.

⁹⁷ Sets from Kommos however included also vessels of different shape; see Rutter 2006: 471.

Italian which according to Puglisi's [1959] classic interpretation were used for the processing of dairy products).

Although functional categorizations are always risky and there are plenty of possible ways to use the same vessel, a difference seems to be recognizable in the sample from Area IX. During the first two phases, the possible uses attested for local pottery include most of the functions of a domestic assemblage, while Aegean-type material seems to be more specifically aimed at serving and storing beverages.

The context of deposition of Area IX (Phases 1 to 3)

The relevance of the patterns so far identified is considerably increased by the characteristics of the context with which this material has been associated. Both in Phases 1 and 2, together with extremely abundant disarticulated remains of different species of wild and domesticated animals (whose study is currently ongoing) often preserving cutmarks as well as traces of partial burning, and other food remains,⁹⁸ it has been possible to recognize the deposition of large portions of animals including cattle, pigs and sheep/goats which did not present any trace of contact with heat. Since, however, the examples from Phase 1 are very few and not particularly well preserved, I will not discuss them in any detail and instead will focus on the later examples. As for these, the deposition represents the very last act that it is possible to recognize in the sequence belonging to Phase 2. Taphonomy and the kind of sediment around the remains indicates that bones were deposited when soft tissues were still intact and that, consequently, the meat belonging to these parts of the animal was not consumed (Figure 5.1.21; 5.1.22). The deposit of animal portions was subsequently covered by some vegetal remains and quickly sealed by a thick crushed limestone pavement (measuring up to 80 cm

⁹⁸ A small context in Phase 1 (11650, the fill of a cut on the bedrock) recently explored has produced few but significant remains of what appears to have been a pulp made up of various cereals and figs (a rather calorific mixture), along with an olive stone (Primavera pers. comm. and in Guglielmino et al. 2014 forthcoming).

in depth) relating to the subsequent phases. The vegetal elements have been identified because many leaves have left an impression on the lower surface of the pavement (Figure 5.1.23).

On top of this pavement, a series crushed limestone pavements alternated with levels of anthropogenic soil of different thickness (Phases 3 to 5), all within the chronological limits of the mature Subapennine period and witnessing that the pace of the building activity in Area IX was rapid. The remains of Phase 3, in particular, were considerably less abundant than those of the previous two phases. A number of postholes were likely to be related to an apsidal structure for which, unfortunately, it has not been possible to identify any specific *in situ* occupational deposits, as probably they have been completely mixed up with the material and the soil introduced on top of the pavement to raise the floor level. The structure itself, however, is fairly recognizable and is relatively large and endowed with two central poles, one toward the apse and another toward the entrance (Figure 5.1.25). From the deposit belonging to this phase (11347) comes a lenticular seal in softstone belonging to the Mainland Popular Group (Figure 5.1.26 and Iacono 2010a)⁹⁹ and dating to LH IIIA-B. Given the small size of the object, it is virtually impossible to assess whether it was in primary deposition or if it ended up in its final location as a result of post-depositional movement.

Aegean-type, Impasto and White Impasto pottery (Area IX, Phase 3-5)

Phase 3 sees a considerable decrease in the percentage of Aegean-type material recovered, representing less than 1% of the overall assemblage (106 families of sherds with 86 non-diagnostics for a total of 236 sherds). This, together with the short duration of the phase previously hypothesized, probably indicates that, although we are still dealing with a mixture of floor and fill levels, the amount of material in secondary deposition is still large, as attested also by the large number of joins with Phase 1 and 2. As far as the composition of the assemblage is concerned, this does not seem to differ substantially from those of the previous

⁹⁹ I owe this identification to Olga Krzyszkowska.

phases (see Tables 5.1.5 and 5.1.7). The only substantial differences are a more pronounced presence of collar necked jars, large lipless storage containers (for one of which the lid is possibly also attested), and a decrease in the number of kraters (now represented by a single specimen).

Interestingly, if Aegean-type material drops, there is another group of pottery which instead experiences a sudden boost in its representation (Table 5.1.8; Figure 5.1.24).¹⁰⁰ This is White Impasto, the sub-class of handmade local pottery characterised by an unusual whitish appearance (see Chapter 3). As mentioned, the main feature of this group is its appearance and the use of gastropod shells as temper; shapewise it comprises uniquely *olle* of different sizes. This pottery is completely unknown in the Late Bronze Age contexts of Apulia other than at Roca,¹⁰¹ and, to my knowledge, is not typical of other areas of continental central and southern Italy either. Analogous products are frequently attested in northern Italy, in particular in the lower Po plain, notably in the area of the Grandi Valli Veronesi, at the south-eastern boundary of the Terramare cultural zone (see Figure 5.1.27.1, from Fondo Paviani). At Roca, White Impasto is attested in minimal quantities already during the first two phases but increases dramatically in Phase 3, reaching about 11% and marking the highest percentage for this subgroup of material recorded in the subsample of Area IX (Figure 5.1.24).

As for the broader Impasto category, assemblages of Phase 3 to 5 do not seem to change substantially, as the only thing that seems to vary to any extent is the relative frequency of *olle* and cup/bowls, as well as a greater variety of shapes occurring in Phase 5 (Figure 5.1.28).

Phase 4 marks a further decrease in the percentage of Aegean-type material attested in Area IX. In this horizon the assemblage measures only 76 families of sherds (Table 5.1.9), and the secondary deposition indicators illustrated for the

¹⁰⁰ The method adopted is essentially the same of that for estimating Aegean-type pottery, the only difference being the fact that the White Impasto total is estimated on the basis of its proportion of the estimated total of the Impasto class (see section 3.3).

¹⁰¹ In Apulia Impasto is normally brown to black in colour. This is not to say, however, that Impasto vessels could not occasionally have a whitish appearance. Random whitish vessels are recorded also since Protoapennine times although they represent only isolated exceptions.

previous phase seem to suggest a further increase of residuality of the material (Figure 5.1.15). The carinated bowl makes its appearance in the assemblage (id 11367 in Grey ware) although the relative frequency of this shape will increase only in the subsequent time-slice. The frequency of White Impasto, instead, remains at about the same level as the previous phase.

The subsequent period, Phase 5, is characterized by an inversion of the trend attested in the previous two phases. Indeed, during this period, the percentage of Aegean-type material experiences a sudden increase (from 0.49 to 2.59%) and includes now almost 400 families of sherds (397 with 351 non-diagnostics), for a total 618 sherds. Both the average EVE of vessels and (to a minor extent) the ratio between diagnostics and non-diagnostics, now increase, indicating perhaps a minor contribution of material in secondary deposition to the overall composition of the assemblage (Figure 5.1.15). This suggestion seems to be confirmed also by the fact that the material of this phase is probably later in date than that of Phase 4, as along with vessels generally attributable to LH IIIC (normally Early to Middle), it is possible to identify specimens which according to shape and decoration can be specifically dated to LH IIIC Middle. This is the case for the unusual krateriskos with oval body and ridges toward the rim decorated with a panel (FM 75), a spiral motif and the handle splashes typical of many LH IIIC Middle vessels (id 10160, Figure 5.1.30). Carinated cup/bowls are now well attested as are also collar necked jars of various sizes (respectively 4 and 3 examples). Deep bowls are, again as in Phase 1, the most popular shape in this period (with 12 specimens) followed by large liquid containers (amphorae/hydriae/large jugs counting 9 examples; see Figure 5.1.31), while kraters are 3. As for pottery of local tradition, while there seem not to be substantial changes in the composition of assemblages at a functional level, White Impasto disappears completely from the sub-sampled area. It must be stressed that, according to personal communication from the excavators (Palmisano pers. comm.), in other parts of the same Area IX (outside the sample), White Impasto continues also in Phase 5, suggesting that its disappearance is coincidental and due to the limited area sampled for the quantification of Impasto pottery. Indeed, dating to this very phase (context 11408) is a strange hybrid specimen of White

Impasto, namely a carinated cup with the interior painted in brown (Figure 5.1.32). In broader terms, along with White Impasto, contact with northern Italy is attested also by numerous stylistical features identified in the standard handmade products. These are not limited only to the phases dating to the end of the Recent Bronze Age, although they are particularly abundant in this period, and include twisted handles and grooves and dots decoration, which are also typical of the late products of the Terramare area (see 5.3 and Pagliara et al. 2007, 2008).

New fortifications (Area IX, Phases 4-5)

Phases 4-5 are characterized by the most extensive building activities effected at the site in the Recent Bronze Age. During this period, the fortifications of the site are completely rebuilt adopting a new technique which involves the use of ashlar masonry with an inner face constituted by a stair-like stone structure (Figure 5.1.33; 5.1.34). Parts of this fortification have been uncovered in Area IX as well as in other zones in the northern half of the site and, although the exact extension of this work is unknown, it is probable that it followed the same line of previous Middle Bronze Age walls. It has become clear that the construction of this structure was relatively lengthy and was organized in a series of phases whose correlation with the main sequence of Area IX is at the moment not straightforward (mostly due to later medieval interference). However, it is possible to safely assert that all the operations have been carried out between Phases 4 and 5.¹⁰² Belonging to the Recent Bronze Age fortification is a stone block identified in secondary deposit on which has been identified a boat representation. Although the block was recovered in a secondary context, the image is likely to have been made when the walls were still in use (i.e. from Phase 4 to 5) as it represents only half of a boat (namely the bow) and is located toward the end of the block, probably continuing on the adjacent one to the right (Figure 5.1.35).

¹⁰² The exact plan and phasing of the Recent Bronze Age fortifications as well as their relation with the main sequence of Area IX are being studied by Luigi Coluccia (see Guglielmino et al. 2014 forthcoming).

Proportion of Aegean-type pottery in Area IX

Summing up the evidence of Area IX, thanks to the detailed chronological articulation allowed by the Roca sequence, it has been possible to analyse in depth the development of the interaction between the site and the Aegean world as attested through the pottery evidence. The proportion of Aegean-type material in the overall assemblages seems to be characterised by a bimodal distribution with two peaks in Phase 2 and 5 (Figure 5.1.17). Such a distribution seems to suggest, more than a continuous process developing gradually through the Recent Bronze Age, a more fragmented and ‘abrupt’ phenomenon which focused around two moments in the history of the site. In Phase 2, this was immediately before the killing of the animals suggested by the retrieval of the large portions in anatomical connection and discussed in more detail later on. The second peak was in Phase 5, after the completion of the new fortifications of the site, which adopt the ‘new’ ashlar technique for which a possible Aegean inspiration can be argued. This suggestion is grounded in the fact that ashlar masonry is widely used in contemporary Mycenaean Greece, particularly in non-domestic and funerary architecture (Fitzsimmons 2006: 171-177), while the same technique is not present in any of the other fortifications identified in Apulia so far.¹⁰³ It is possible that Phase 5 had a longer duration than earlier phases and that the new fortification helped to better preserve the archaeological deposits from this period. Nevertheless, this is not enough to explain the high proportion of Aegean-type material, as this would explain only a general increase in the size of the overall assemblage (i.e. Impasto included) and not of the proportion of this specific class. The maximum peak, however, seems that of Phase 2, when Aegean-type materials correspond to about 3.6% of the overall assemblage, while in Phase 5 the ratio reaches almost 2.6%.

A similar distribution (though not identical) is recognizable also in the presence of a specific shape of local pottery, the *olla*, a shape of variable size (normally medium–large to large) whose primary function was storage (Figure

¹⁰³ Ashlar masonry was also the traditional technique of high-status architecture in Neopalatial Crete, where it was ubiquitous (McEnroe 2010).

5.1.36). In other words, the maximum proportion of Aegean-type material is attested at Roca when storage vessels constitute a large part of the assemblage. This trend is evident for the first phases, while in Phase 5, a partial phenomena of replacement of local wares with Aegean-type pottery may have also played a role. Such a possibility is grounded in the recognition that deep bowls are abundant in Aegean-type pottery of Phase 5, while Impasto cup/bowls are not attested at this time in the sample (see Table 5.1.6, 5.1.10).

Another interesting trend is the correlation between Aegean-type material and White Impasto. Comparing the proportions of the two classes, they are negatively correlated. White Impasto starts to be attested already in Phases 1 in limited amounts and then grows substantially during Phase 3 and 4 to disappear completely during Phase 5 (Figure 5.1.37).

The end of the Recent Bronze Age in Area X (Phase III)

Returning to Area X, the period comparable to Phase 5 of Area IX is Phase III (according to the chronology of Impasto pottery; see Figure 5.1.38). Phase III witnesses the maximum amount of Aegean-type materials recorded in this part of the settlement. It is necessary, however, to take into consideration the fact that the area investigated for the last three phases (namely III, IV and V) is considerably larger in comparison with that belonging to the first two. Despite this discrepancy, even taking into consideration only the contexts excavated in the same smaller portion of Area X investigated also for Phases I and II, the quantity of Aegean-type materials is nevertheless nearly three times more than in the preceding phase (62 families of sherds for Phase III vs. the 24 recorded for Phase II) (Table 5.1.11).

The southern portion of Area X (Figure 5.1.39) is the best investigated and the only one for which at this stage it is also possible to make some observations on the structural remains. In the western part of the southern half of Area X it has been possible to recognise, below a fill layer used as a preparation for the floor of

Phase IV (which employed material from the destruction of the underlying structures [5627]), the remains of a large hut. This is delimited to the west by a shallow ditch which probably contained a light structure made of small posts and, to the east, by a sub-circular alignment of posts. The overall extent of the building seems to be confirmed by that of the pavement in crushed limestone beneath, which covers only this area. Interestingly, among the materials retrieved in the building are a large number of semi-finished artefacts in deer horn and ivory in the north corner (Pagliara et al 2007: 318-323; see also Guglielmino et al. 2011). The eastern half of the southern portion of Area X seems not to have been occupied with buildings, as suggested by the less refined nature of the surface there, as well as by the low density of archaeological materials retrieved. The corner of another building delimited by another wall (5720) and with a small *in situ* use deposit (5684) has been found at the western corner of this area. The deposit (5627) on top of the use level of the hut produced 28 families of sherds of Aegean-type whilst the use level (5664) yielded 23, for a total of 51 families of sherds possibly connected with the building. Among these are a good range of open shapes (14, 3 of large size; e.g. 4 deep bowls [FS 284], 2 kraters and a carinated bowl [FS 240]), together with 33 closed shapes (17 large and 16 medium/small, one of which is a straight sided alabastron [FS 96]). A small amount of material was also concentrated in the minute portion of the other building preserved in the western corner of the area (5684), which featured 4 families of sherds (3 medium/small closed shapes plus 1 large open shape), among which is also a fragment of a krater. The eastern half of the area (5664 basso) did not produce any Aegean-type pottery.

Unfortunately, for the area explored to the north, the same level of contextual information is not available. Nevertheless it is still possible to assess in some way the distribution of materials (Figure 5.1.40). Overall, 99 families of sherds have been recovered in this area and it is possible to obtain also some information on the spatial distribution of the materials as the area investigated has been subdivided in 5 sectors, and for many families of sherds it is possible to assign them to an individual sector. The sectors with the highest concentration of Aegean-type materials are those to the west, namely sector 1 (with 26 families of

sherds) and sector 4 (with 22), which interestingly are also closer to a possible road. All the diagnostics are concentrated in this area, suggesting that it is probable that one or more buildings were located there. The remaining sectors counted overall 38 families of sherds with another minor concentration in sector 3 (19).

The Recent Bronze Age at Roca: comparison of the sampled areas

Looking diachronically at the overall evidence from Area IX and Area X it is possible to propose some general remarks, assessing also the differences that have emerged between the two assemblages. The first aspect to compare which is relevant to the theoretical approach adopted in this work is the quantity of material. This is because the relative abundance of Aegean-type material can indicate whether the part of the community frequenting/living in each of two different areas had preferential access or not to exotic goods or their local imitations. This is also particularly difficult to tackle since, unfortunately, the data on the proportion of Impasto and Aegean-type material in Area X are not available. A simple phase to phase comparison would also prove to be inadequate, not only because of the difference in size of the two zones sampled, but also because of the non-perfect alignment of the sequences of the two areas until LH IIIC Middle (Area IX Phase 5, Area X Phase III). In any case, as for this last problem, the fact that while in Area X we have only one pre-LH IIIC Middle phase while Area IX experienced rather hectic activity, resulting in four different chronological horizons, is a culturally and socially meaningful fact that should be taken in consideration. A possible solution to the issues just highlighted might be looking at broad horizons of contemporarity (namely Phase 1 to 4 of Area IX and Phase II of Area X for the pre-LH IIIC Middle horizon and Phase 5 of Area IX and Phase III of Area X for the remaining Recent Bronze Age occupation; see Figure 5.1.38 and Table 5.1.12), focusing on density rather than on simple quantity and taking into consideration the different extent of each area in the various phases. Before doing this, however, it is necessary to establish what to compare in each broad horizon. As the previous discussion has highlighted, post-depositional transformations and

residuality have played a major role in a long-lived settlement such as Roca, and this is not limited uniquely to Area IX.

On the basis particularly of the the ratio between diagnostics and non-diagnostics, as well as of the abundance of wall sherds from large closed shapes (see Table 5.1.3), it seems reasonable to argue that perhaps the quantity of Aegean-type material in Area X Phase II has been somewhat over-estimated (for the limitations intrinsic to the methodology of pottery quantification adopted in this study, see Chapter 3). This means that some of the plain non-decorated or banded sherds could have been further grouped (more than has been done). Taking into consideration only diagnostics when comparing the densities between the two sampled zones appears therefore to be a wiser choice, although not without other problems, such as the smaller size of the overall sample and the limited extent of Area X, which measures during Phase II only 12 m².

Bearing in mind all this, it is nevertheless quite surprising to note that the density of the two areas appears to be about the same (i.e. 0.8 families of sherds per m²), thus contradicting the initial evaluations of the excavators (as well as the present author), according to which Area IX was identified as having the largest concentration of Aegean-type material. However, again, it is important to consider that this assessment rests on extremely weak ground as sherd density over an area as small as Area X Phase II can be entirely random. Also, it is necessary to recall (as has already been done above) that the density of finds in Area IX is all but homogeneous, with many small concentrations, and that therefore the estimation needs to be considered only a gross indication. This suggests that any significant discrepancy between the densities of material in Area IX and X is, at present, not demonstrable.

Evaluating the density of Aegean-type material in the two sampled areas become more feasible in the subsequent time horizon corresponding to Area IX Phase 5 and Area X Phase III. Now the overall size of Area X reaches about 102 m² and the result of the calculation seems to indicate that (keeping always in mind again that even this sample is considerably smaller than the 1241 m² of Area IX)

Aegean-type material density for this area is higher than that of Area IX (Table 5.1.12).

The second dimension that it is useful to explore in comparing the assemblages of Areas IX and X during the Recent Bronze Age is composition, that is, what shapes are attested and in what proportion. Such an appraisal can provide a useful assessment of the extent to which the activities connected with Aegean-type material carried out in the two different areas were similar or not. As far as the first broad chronological horizon identified (from Phases 1 to 4 in Area IX and Phase II of Area X), differences are so marked that it is not even necessary to plot the data to identify them. Indeed, while the assemblage of Area IX is more heterogeneous and it is possible to recognize a noteworthy variety of open and closed shapes, Area X contains only a hydria/amphora (considering only diagnostics). This might be partially due to the greater chronological variability of the material itself which ranges from LH IIIB1 to IIIC Early (rather than of its context of deposition, all to be placed in a mature horizon of the Recent Bronze Age), but, as stressed before, the more detailed chronology of Area IX is a significant aspect that cannot be dismissed. It is possible therefore to suggest that while in Area X open shapes are largely a minor element if not absent (if diagnostics only are counted), in Area IX they constitute 61% of the total (61 on an overall sample of 100 families of sherds, counting only the diagnostics). Among these, the lion's share is taken by deep bowls, with 29 examples, followed by kraters (8 specimens). Furthermore, it can be safely asserted that, even among the non-diagnostic sherds of Area X, there is none compatible with the function of a krater (i.e. none with a comparable wall thickness). The less wine-oriented nature of the Area X assemblage is also confirmed by the lack in this area in any phase of unpainted dippers, whose use as serving vessels might have integrated the main krater/deep bowl drinking set.

Differences appear to be less marked in the subsequent time horizon corresponding to Area IX Phase 5 and Area X Phase III. Now, the proportion of shapes attested in both areas is very similar (Figure 5.1.41). There still seems to be more pronounced variability within the Area IX assemblage but this can be

explained by the larger size of the assemblage as well as the possible role of residual material (see discussion above). As a consequence, it does not appear hazardous to assert that the range of practices attested in the two areas during this time-slice were similar. These activities entailed, now regularly, the use, along with shapes of supposed 'local' ancestry such as carinated cups/bowls (see below and Rutter 1990), also deep bowls and kraters whose cultural significance has been previously addressed.

A glimpse into production

The discussion so far offers little consideration of local production at the site. As we shall see, however, local production is the main feature of Aegean-type material during this period. Unfortunately, in the whole central Mediterranean, direct evidence for production is far from abundant. No remains of kilns or potter's wheels or any other structure connected with the specific production of Aegean-type pottery has ever been uncovered in this area. At Roca, however, at least some elements are present, including a limited number of wasters (ids 10405, 10521, 10522, Figure 5.1.42), as well as a possible fragment of kiln lining (Guglielmino et al. 2010, sample 21). Important confirmation regarding the production of Aegean-type pottery at the site comes from a recently published study (Guglielmino et al. 2010). A relatively small sample of material (some 60 vessels from the Middle Bronze to the end of the Bronze Age, comprising all the classes of material, including Impasto, save for the white version) from the site has been analysed, and among the Aegean-type class, some 15 vessels of a total of 39 appeared to have been locally made, with the remaining being imported from areas as distant as central Greece and Crete. It must be stressed, however, that the vessels selected for the sample do not mirror the typical composition of assemblages at Roca but are instead aimed at exploring production from a wider, more synchronic perspective. Despite these limitations, such work can still offer valuable insights into some of the main aspects of the problem.

Before provenance analyses, among the features adopted by archaeologists to identify local products from imports, criteria like 'quality' of the paint and features in the fabric of the vessels were adopted. Leaving aside the first for the obvious bias it underpins (i.e. local products are supposed to be always worse than the 'real' stuff), there is still some scope to explore the possible soundness of the second, i.e. that related to macroscopic characteristics in vessels' fabric.

Since Taylour's (1958: 164) work, the presence of mica, that is tiny shiny particles, in the clay has been regarded as an element typical of local production, particularly in Apulia.¹⁰⁴ Recent analyses however, have demonstrated at Roca the existence of local Aegean-type pottery both containing and not containing mica. These include, among the others, sample no. 101 (a krater), id 10363, with mica and no. 151, id 10467 (a large closed shape) without it (Figure 5.1.43). This aspect is confirmed since the few wasters present at the site were both with (id 10521, 10522) and without mica (id 10405, Figure 5.1.42). However, fabrics produced in some areas of the Aegean are characterised by micaceous fabrics. Among these areas is Rhodes (Benzi 1992: 116; Karantzali & Ponting 2000) which had clear connections with Apulia, as attested by the material from Scoglio del Tonno as well as by some hints in the material of Roca itself.¹⁰⁵ So, overall, it is not possible to propose a direct linkage between local production and the presence of mica. What this does reveal is the existence of at least two recipes (but surely more considering the local and non-local dichotomy as well as the possible variants within these larger sets) for pottery used at the site, whether these were locally made or produced elsewhere. Before drawing any conclusion it is necessary to consider that actually mica is normally centred on the surface, either in the paint or in the slip (in the few cases when this seems visible). It is therefore potentially possible that the occurrence of this feature is uniquely connected to the surface finishing of the vessel. In particular, the polishing action effected before the firing of the vessel would be responsible for the alignment of mica particles in such a way as to reflect more effectively the light, thus becoming more visible.

¹⁰⁴ Recent archaeometric analyses have also proved that mica is constituted largely by flakes of biotite and muscovite (see Guglielmino et al. 2010: 265-266).

¹⁰⁵ Ids 10663, 11089, 11090, 11091 from Area IX Phase I but dating to LH III A2, all comparing well with a specific type from Ialysos; see Mountjoy 1986: 90, fig. 108, no. 1.

However, the heavy finishing of the locally made vessels without mica (id 10467 is actually almost burnished) suggests that this probably is not the case.

Given these considerations, it is interesting to note the stark contrast in the intra-site distribution of these two possibly different sets of recipes in the two areas analysed. Indeed while micaceous fabrics¹⁰⁶ (or perhaps more correctly slips and paints) make up a large amount of the Aegean-type pottery recovered at any phase in Area IX, corresponding to about 18-20% (with a peak in Phase 1 when they are 27%), in Area X these are almost completely absent and never exceed 5% of the total. Even in Phase III, when the sample size of Area X is relatively large (178 families of sherds), micaceous fabrics seem not to be present in this part of the site. The obvious objection to the identification of this pattern is that since mica particles are more likely to occur on the surface of the vessel and as Area IX material is in a very good state of preservation, it could be that the distinction is the result of a preservation bias in the two areas. This is entirely possible, although unlikely to account for a gross difference such as the one we are dealing with (from about one quarter of the material to zero), particularly since surfaces are very often preserved on the pottery from Area X. Also mica does appear occasionally in Area X and even on some worn out sherd material. Taking into consideration also the material from contexts for which it has not been possible to identify the specific phase, the number of attestations of micaceous fabrics for all phases of Area X increase slightly (42 vessels), but the proportion remains comparatively small (21% in Area IX versus 6.9% in Area X).

There seems to have been, therefore, variability in the pottery used and produced at the site. This variability is matched also by other characteristics such as paint colour, which can be extremely variable (Table 5.1.13), often changing from one side to the other of the same vessel, or surface finishing, which again showed great variation, again often in the same vessel (Figure 5.1.44). Also some of the features highlighted in the previous section have possible alternative, but not exclusive, interpretations.

¹⁰⁶ Micaceous fabrics are here defined as fabrics with a concentration of at least 10-15 mica particles per cm².

To this extent, it is interesting to notice how the drinking sets mentioned before are often constituted by vessels with very different fabrics. Often (as in the example in Figure 5.1.18), the two objects are not identical but one show traces, particularly as far as decoration is concerned, of less confident execution. As a consequence it is possible to suggest that, beyond their probable function within the context in which they have been used and deposited (see above), these vessels are precious witnesses to the transmission of the technological know-how related to pottery production and decoration as well as the learning process it entailed.

All these elements indicate that, as is often the case elsewhere, local production of the 'new' Lustrous Decorated material at Roca was very much a process of trial and error which entailed also a noteworthy dose of risk and uncertainty, and this was particularly true as far as mastering firing was concerned. In the sample, along with excellent pieces, are vessels which experienced a wide range of 'firing dramas' and there is no evidence that they have been discarded at any time before entering the consumption cycle (even one of the wasters, the large amphora-hydria id 10405, a rather un-Italian shape per se, albeit completely deformed on the rim, is likely to have been used before being thrown away).

Putting aside the Aegean-type material, wheelmade production is present also in the other classes that start to be attested during the Recent Bronze Age, i.e. Grey Ware and pithoi (witnessed by only one fragment in Phase 2), an element that further reinforces the impression of versatility and variability previously highlighted.

As for Impasto, previous observations (Guglielmino et al. 2010; Jones & Levi 2002) have clearly shown the compositional variability of this class of material, which has been explained by Levi, who suggests that soils were added to the natural clays in the manufacture of these vessels. There are unfortunately no data regarding White Impasto from previous studies, and, therefore, it is not really possible to know whether they constituted an exception to this pattern or not. On

the basis of the comparison with material coming from the Grandi Valli Veronesi (Leonardi & Cupito pers. comm.), a northern Italian origin/influence has been postulated although at present, in the absence of a specific petrological study, it is not possible to test this hypothesis.

Context of interaction beyond Roca

The discrepancies between our case study at Roca and the rest of Apulia during the Recent Bronze Age become apparent. These are possibly due only to the size of the sample from the site as, with the possibly unique exception of Scoglio del Tonno, there is no context comparable to Roca in the region in terms of the quantity of Aegean-type material, even if the diversity of material and the articulation of practices that this represents (highlighted in the previous section) are also relatively unparalleled.

This consideration aside, in the broader Apulian context it is possible to recognise a series of relevant changes at this time in the pattern of consumption/deposition related to exogenous goods. The first and more important is the almost complete disappearance of Aegean-type pottery (or more broadly goods) from grave offerings, though admittedly this was attested in the previous phases only by a couple of instances (see section 4.1). The only possible exception related to this period is the stirrup jar held by the Louvre Museum, and dating to LH IIIB, coming from an unspecified location around Oria (Taylour 1958: 169). A few years ago, Yntema (1993) affirmed that he had been able to identify the area of origin of the find, which possibly coincided with a burial mound dismantled in the 1950s and located in the countryside to the west of the modern town (named Specchia Martucci; see also Orlando 1995). Oria, however, constitutes an isolated and, more importantly, early case, dating to a time when the pattern was still not general. The disappearance of Aegean goods from grave offerings is possibly to be connected with the more egalitarian burial practices that seem to become more popular in the Recent Bronze Age (i.e. cremation), although incineration in itself does not preclude in absolute terms either the exhibition or display (see the tomb

from Molinella; Bietti Sestieri 2010: 158), or the possibility to use ceramic vessels, as proved by the use of local Impasto urns and bowls, the latter functioning as lids (i.e. at both Torre Castelluccia and Pozzillo; see Lo Porto 1997; Vanzetti 2002).

The use of Aegean-type material in the settlements instead continues as in the previous period, both on the eastern and western coasts of the region. At Coppa Nevigata (Figure 5.1.1 no. 28; Figure 5.1.6), Aegean-type materials seem to have been concentrated in the northern area of the settlement in close spatial relation with the (now abandoned) Apennine walls and with a thick crushed limestone pavement (Figure 5.1.6 no. 9) similar to that identified at Roca Area IX Phase 3.¹⁰⁷ In the case of Coppa, however, the deposits containing the exogenous or locally imitated material did not precede the construction of the pavement and the stratigraphic relationship between the two deposits has not been clarified by the excavators, perhaps also because this area of the settlement was severely damaged by vandals in the 1970s (Cassano et al. 1987: 114, Cazzella et al. 2004; Recchia 2009). A bi-cellular quadrangular building (Figure 5.1.6 no 7) possibly endowed with walls in a perishable material (see Cazzella et al. 2004), was situated at the eastern side of this thick pavement in a location similar (albeit not identical) to that of the large apsidal hut identified at Roca in Area IX Phase 3 (Figure 5.1.25). Notwithstanding these contextual analogies there are also other, perhaps more evident, differences with Roca. A first major one is the sample size and the overall scarceness and low variability of the Aegean-type material present at Coppa. Also there are no traces at this site of complex practices (e.g. wine consumption, deposits of articulated parts of animals) such as those identified in Area IX Phase 1 and 2 (see 5.4 for full discussion).¹⁰⁸

Another important context of interaction on the Adriatic coast is Torre Santa Sabina (Figure 5.1.1 no. 161). Here, as previously mentioned, the remains of two large semi-underground structures have yielded copious material (mostly of

¹⁰⁷ It needs to be stressed, however, that the supposed concentration of Aegean-type material is based on the impression of the excavators and no in-depth quantification has been so far made for this class of material at the site.

¹⁰⁸ Only an in-depth trial excavation below the surface of the Subapennine pavement might ascertain in a definite way if the analogies here suggested between Roca and Coppa are uniquely formal or if there is more than this.

LH IIIC date with some earlier specimens). The structures, which bear traces of perimeter postholes, have been credibly interpreted as connected to relatively large habitations, albeit unfortunately they constitute the only reasonably preserved structures identified at the site and therefore it is not possible to compare them with anything else (Coppola 1977; Coppola & Raimondi 1995).

Substantial traces of interaction with the Aegean world have been revealed also at Porto Perone (Figure 5.1.1 no.123), located on the Ionian coast. Aegean-type material is attested both here as well as at the related upper settlement on the promontory of Satyrion. The material from Porto Perone itself appears to be more abundant than that of Satyrion, even if the area explored in the former location is larger (though not substantially so) (Fisher 1988; Lo Porto 1963, 1964a). Again in the area around Taranto and not far from Porto Perone, the site of Torre Castelluccia has yielded minor quantities of Aegean-type material. According to the re-examination of the excavation notebook of the 1940s and 1950s (Gorgoglione 2002), a relatively complex quadrangular stone building dating to the end of the Recent and Final Bronze Age has been recovered at the site (*ambiente 7*, see Gorgoglione et al. 1993), and Subapennine material has been identified in various zones of the settlement. As for Aegean-type pottery, this has been recovered in association with a pavement (*Battuto B* of the Trench II) but no other information is available on this. According to various scholars (Biancofiore 1967; Fisher 1988: 152-167; Vagnetti 2002), two of the vessels recovered at the site, a cup and a jug (Vagnetti 2002: 89, fig 1-2), which have very similar fabric and are decorated in similar ways (FM 48), can represent a drinking set, thus perhaps hinting at the possible existence of complex strategies of display such as those highlighted at Roca. The most interesting aspect of the documentation of Torre Castelluccia, however, is the fact that although two different kinds of funerary structures belonging to the Recent Bronze Age are present, neither of them contained Aegean-type material, representing a specific cultural choice.

The evidence from the region around Taranto leaves the observer to wonder what the context of deposition was in the site that probably constituted the main node of the area as far as interaction with the Aegean is concerned,

namely the settlement of Scoglio del Tonno. Unfortunately, as discussed for the previous phases, the data available are extremely sketchy if not contradictory (Quagliati 1900). Despite these limitations, as far as it is possible to tell, the main structural evidence related to the Subapennine phase (but occupation in the subsequent Final Bronze Age is not to be excluded), is the large apsidal hut (Figure 5.1.46 measuring about 20x15 m), which as recently stated (Gorgoglione et al. 2006: 1129), is also the area that has revealed the largest assemblage of Aegean-type material, with a high proportion of imports as well as a numerous bronze objects (Bietti Sestieri et al. 2010: 465; Quagliati 1900: 434-437). The structure, for which some sort of public function has been suggested by various authors (Bietti Sestieri 2010: 140, see also Peroni 1996: 290-292), was possibly endowed with a contiguous 'kitchen' (i.e. an area/room with cooking facilities), suggesting some form of specialization in the use of space which is perhaps also attested elsewhere (i.e. at some of the quadrangular buildings of Coppa Nevigata; see Cazzella et al. 2004). The plan of the structure, with the internal row of supporting poles (admittedly an unavoidable characteristic for large structures), is reminiscent of smaller hut identified in Area IX Phase 3 at Roca, although the lack of contextual information from Scoglio del Tonno hinders any possibility to draw more far-reaching conclusions from this formal analogy.

Finally, little information is available on other settlements for which the presence of Aegean-type material has been recorded, either because the area explored is too small, as at Otranto (Benzi 1983; Orlando 1983), or because the excavations are still not published, as at Scalo di Furno (Lo Porto 1990).¹⁰⁹

5.2 The Small Scale Network during the Recent Bronze Age

The Subapennine network

¹⁰⁹ For this last case, again on the Ionian coast, the only publication available (Lo Porto 1990) does not reveal any contextual details of the settlement belonging to the Recent Bronze Age.

It is now time to surpass the threshold of the individual community and to engage with what interaction looked like at an inter-site level. Again, as for the previous time-slice, the material selected in order to explore local networks is handmade Impasto pottery (Figure 5.2.1).

It is essential to note that, although the basic technical features of pottery making (hand forming, low firing and the use of non-fine clays)¹¹⁰ remain the same, much has changed from the Middle Bronze Age during this period. These changes have led some scholars (i.e. Recchia & Ruggini 2009) to doubt the very nature of Subapennine pottery as a widely spread cultural phenomenon, suggesting that perhaps this was uniquely a localized expression which had its focus at a limited number of coastal sites. This consideration, which is indeed entirely plausible, does not subtract anything from the relevance of the changes that took place during this phase. Rather it suggests only that their extent did not cover the entire region but instead affected uniquely a specific subsample within it which, in any case, on the basis of the information collected in the sample of sites (section 5.1), cannot be considered as *tout court*, coinciding with coastal sites.

Having made this clear, it is possible to analyse the nature of these differences. A first element of discontinuity, which is not limited to Apulia but involves the whole of southern Italy, is an increase of standardisation of pottery. This is evident in one of the best studied contexts of southern Italy, namely the assemblage from the site of Broglio di Trebisacce in Calabria. As noted by Levi (1999, 2004 :241), the passage between Apennine (or Middle Bronze Age 3 in her terminology) and Subapennine (Recent Bronze Age 1) marks an increase in the number of shapes and a pronounced decrease in the number of pottery types for each shape. On the other hand, a process of homogenization has already been noticed by many scholars, in particular with reference to Apulia, where the various sub-groups recognizable during Protoapennine times seem to be finally unified during the Recent Bronze Age (Damiani 1991, 1995; Macchiarola 1995).

¹¹⁰ The occasional use of the wheel for some large closed Impasto vessels from the Sibaritide area, has been suggested by Levi (Levi 1999: 226) from the Recent Bronze Age onward, but this feature is very rare and, at present, unattested in Apulia.

Partially connected with a decrease of variability is also the second and foremost change occurring in pottery production during the Recent Bronze Age. This is the gradual (according primarily to the record from Coppa Nevigata) decline of incised decoration which, albeit still present in an early phase of the period, disappears completely in mature Subapennine times. One obvious objection to this observation is that, as several scholars (Cazzella 2009; Recchia & Ruggini 2009; Scarano 2006) have noticed, and as has been confirmed by the network analysis in Chapter 4 (see section 4.2.), the mature Apennine phase does not seem to cover with equal intensity the whole territory of Apulia, being mostly concentrated in the north.

With the new phase, the only medium through which stylistic variation could be expressed was plastic decoration, primarily in the form of plastic handles. These, albeit varied, are incomparably less able to produce numerous variations than incised motifs. A quick look at the difference in the number of variables expressed in the tables referring to the two periods is enough to realize this (see Appendix 3 Tables 1 and 2). The graph elaborated for this phase (Figure 5.2.2, data in Appendix 3, measures in Table 5.2.1) follows the same rules and assumptions explained in the previous chapter (see section 4.2).¹¹¹

Since the chronology of most of the elements taken into consideration does not overlap perfectly (see Cocchi Genick 2004a; Damiani 1991), subdividing the evidence into different sub-periods would have produced a very small graph with very few nodes based on a fairly limited number of stylistic variables. Furthermore, the duration of the possible Subapennine sub-phases would be quite short (perhaps 100 years or less but some of the chronological distinctions are actually difficult to quantify) and in any case not comparable with the duration of the other time slices analyzed in Chapter 4 (always more than one century). For all these reasons, it has been decided to consider the whole Subapennine together.

¹¹¹ Naturally enough, a critical role in the definition of the graph is played by the grouping of micro-variations within an individual category. This has been completely avoided, and the only features not taken into consideration, are those related with the proportion of the projections (e.g. long or short stems, which for Damiani [1991] are also a macro-geographic indicator, unlikely to be relevant at the scale of this analysis). As these features are rarely recognisable on sherd material, they have been excluded.

As for the specific elements analysed, it has been decided to exclude features that are also very frequent during the Middle Bronze Age, such as strap handles with raised edges or strap handles with cylindrical projections (Cocchi Genick 1995, fig. 138, nos. 458-9).

Along with projections (in the Italian terminology *sopraelevazioni*) of various shapes (with cattle horns, snail horns, bi-lateral lobes and so on) and plastic decoration of the handle itself (in Italian *anse cornute*, see Table 5.2.1), the number of stylistic variables examined has been enriched also with other features. These, excluding complex knot and cordon features (Table 5.2.1 no. 16) which are probably limited only to the Recent Bronze Age, are mostly elements that start towards the end of the Subapennine and continue in the subsequent Protovillanovan, Final Bronze Age. Among these it is possible to recognize twisted rolled handles (in Italian *anse a tortiglione* Table 5.2.1 no.15), groove and dots decoration (in Italian *decorazione a solcature e cuppelle* [Table 5.2.1 no.13], an influence from northern Italy as we shall see) and bowls with the carination decorated with furrows (Table 5.2.1 no. 14). It is necessary to highlight that in no way can the grooves and dots decoration be assimilated to the Apennine tradition of decoration. This is not only because there is a considerable chronological gap between the disappearance of the first and the start of the second, but also because groove and dots decoration entails not incision but the actual removal of the clay (a practice quite rare in Apennine pottery) and does not express itself in anything more complex than simple linear or zig zag motifs (the one represented in Table 5.2.13 is possibly the most complex evolution attested; see Cocchi Genick 2004a; Damiani 1995; 2010).

The results presented in Table 5.2.1 indicate that Coppa Nevigata (28) was again the most central site in the region. However, it is necessary to bear in mind the relative heterogeneity of the sample, which includes both sites with traces of all components of the Subapennine and those whose occupation relating to this period was arguably shorter, i.e. limited either to the initial, the mature or the last phases of the Recent Bronze Age. To this extent, Coppa Nevigata is the only systematically explored site in the region that was continuously occupied during the

whole Recent Bronze Age, while at sites such as Roca, the areas explored so far have revealed (excluding the minor exceptions highlighted in 5.1 and which however are not Subapennine in the classic meaning of the term) traces of occupation dating only to the mature and final part of the period. Therefore, the primary position of Coppa Nevigata is probably to be read diachronically as an attestation of the continuity of occupation of the site. However, as we shall see later in the next section, continuity is probably not the only reason for this result, and indeed Coppa's northern position in relation to the frequent interconnections with the upper part of the Adriatic probably had some importance as well.

The most evident result of the network analysis resides undoubtedly in the correlation between weighted-degree centrality in the local pottery network and the presence of Aegean-type material. Indeed, while in the previous phase there seems to have been a certain balance between sites with this class of material and those without it (section 4.2), now the results indicate that this balance has definitely vanished in favour of the former group. Sites with Aegean-type material are by far more central than the others (the Average Weighted Degree of the first category is 48.3 while the second is 2.7), and this indicates that there is a strong relationship between centrality in local networks and the presence of Aegean-type material. As has also been noted in the previous periods, most of the sites with high Weighted Degree Centrality are also those on the coast, and this is even more valid for Subapennine times when the overall incidence of coastal sites increases. It is possible, therefore, that the pattern just described is to some extent influenced by a fundamental exploration bias. In particular, the fact that coastal sites have been traditionally the most explored category of settlement might have favoured their high score in terms of Weighted Degree Centrality (i.e. more excavations, larger sample, more features). However, as the brief overview of settlement patterns presented at the beginning of this chapter has made clear, hinterland sites still existed, even if normally their attribution to the Recent Bronze Age is not based on the attestation of many of the 'stylistic' criteria here adopted but to other less stylistically diagnostic (i.e. simple high swung rolled handle, bowls with a marked carination and such like). Consequently, a minimalist interpretation of the results suggests that the correlation is between the presence of Aegean-type

material and the specific features selected, which are the 'classic' Subapennine indicators.¹¹²

Another element that has emerged quite clearly from the network analysis regards the overall features of the Subapennine network. Comparing the measures related to the Average Clustering Coefficient, which counts the number of cliques (i.e. group of nodes that are all connected to one another), and the Average Weighted Degree, which indicates how many stylistic features are shared between each node on average, it is possible to note that the graph relating to the Subapennine period is much more connected than those of the previous period. In other words, if we focus particularly on the Average Weighted Degree, it is possible to recognise that stylistic information travelled through Subapennine sites more frequently than in Protoapennine and Apennine times.

The tendency identified might, at least partially, be imputable to the change of focus in the indicators adopted for the stylistic analysis of this period, namely from incised decoration to plastic. Nevertheless, the fact that plastic handles and decoration are, along with relatively modest variations in the proportion of the vessel itself, the only domain of stylistic variability, is a significant fact that cannot be dismissed.

The social implications of the patterns recognised through the network analysis will be fully explored in the last section of this chapter when we try to see how they relate to other trends documented at the other scales of the analysis.

5.3 The Wider Mediterranean Context during the Recent Bronze Age

Northern connections: Was there a small scale Subapennine network?

¹¹² This to some extent corroborates Recchia's proposal, previously discussed, according to which Subapennine elements do not represent the whole of Recent Bronze Age occupation but only a specific subset of it.

Discussing Subapennine pottery, an aspect that must be taken into consideration is that limiting the analysis to a sole region (even if a relatively large one like Apulia) can potentially be extremely misleading. This is because since the earliest study on the subject (i.e. Peroni 1959) one of the elements that has been universally acknowledged by scholars working in this field is the far reach of pottery types and features during the Recent Bronze Age. In the whole Italian Bronze Age, the Subapennine is *par excellence* the period when ideas and models related to craft production travel over long distances, far greater than the limits of an individual region (Damiani 1991, 2004). Many of the indicators chosen in the analysis presented in the previous section are indeed distributed in regions as far as the lower Po Plain and the very tip of the Salento (take for instance the cylindrical projection which is typical of the Terramare area in Emilia Romagna in north-eastern Italy, but is attested also at Santa Maria di Leuca, the southeasternmost point of continental Apulia; Table 5.2.1).

Damiani, the author of some of the major analyses of Subapennine pottery (i.e. Damiani 1991, 2004, 2010) has suggested the working of two different mechanisms of transmission of pottery features over such a wide area: one related to the distribution of pottery types, and the other with that of the handles' shapes. In her opinion, while specific pottery types spread using as a medium bronze prototypes (rarely attested in the archaeological record, but the ubiquity of carination, a feature more easily obtainable in metal rather than clay, seems to confirm this suggestion), the handles' shapes followed different 'routes'. In particular, these features would constitute independent expressions and this would be proved by the fact that the same handle shape is attached to very different (almost always open) vessels. This independence, as well as the very shape of some of these indicators, often connected with animals with potentially a high symbolic charge (i.e. bulls/cattle, birds), has induced Damiani and other scholars to suggest that these indicators are the proof of a common shared symbolic background encompassing wide areas of the current Italian territory. The two processes indicated by Damiani, however, need not be necessarily separated, and occasionally bronze prototypes also functioned as means through which stylistic information related to handles was replicated (as in the case of the famous

bowl from the Coste del Marano hoard, dating to the Final Bronze Age; see Figure 5.3.1a and Bietti Sestieri 1973: 392-393).

The Adriatic seems to have constituted one of the main axes of movement and the recent development of archaeological exploration of intermediate regions (such as Marche and Abruzzo; see Damiani 2010: 383-390), has revealed the existence of indicators similar to those attested in the two geographically extreme areas, thus confirming this hypothesis. This axis of movement is not exclusive to the Recent Bronze Age and some hints at the existence of similar connections already during the Protoapennine times indeed exist (see Cannavò & Levi 2009 and section 4.2). What does change is the scale of the phenomenon, which during the Subapennine reached unprecedented levels.

While some shapes (for instance snail horns) are probably related to handle shapes of local (southern Italian) Middle Bronze Age tradition,¹¹³ the ancestry of some other models has been firmly identified in the Terramare area. This is the case, for instance, for cattle horns, which are fairly frequent in the Terramare area already during Middle Bronze Age 3 (e.g. at Cavazzoli: Bernabò Brea & Tirabassi 1997: 352, fig. 193; see also Cardarelli 2009), and that become fairly ubiquitous in a mature phase of the Subapennine of Apulia. An example from the northerly site of Torre Mileto in the Gargano attests to a possible early adaptation of the Terramare prototype to the Apulian pottery tradition (Figura 5.3.1b). Likewise grooves and dots decoration represents undoubtedly a characteristic typical of the Terramare area which gains popularity in Adriatic southern Italy only in the late Subapennine (Cardarelli 2009; Damiani 1991).

The area of the so-called Terramare, the embanked sites characterizing the Bronze Age occupation of a vast territory that include most of modern Emilia Romagna down to the northern part of Tuscany, constituted the northernmost extreme of this north-south transmission, which has been recently explained by Cardarelli in relation to the major transformations in settlement patterns

¹¹³ See for instance the Protoapennine examples from Porto Perone (1963, fig. 34, no.19, 59 no.5), Bari (Radina 1988; fig. 96 no. 7) and Cavallino (Ingravallo 1990, Pl. 23 no. 2)

occurring in there (Cardarelli 2009). In particular, according to a widely accepted hypothesis, the Terramare region experienced a rapid increase of its population, witnessed by the establishment between the Middle Bronze Age and the beginning of the Recent Bronze Age of a large number of new sites (Figure 5.3.2). This increase would have pushed the productive capacity of the territory to the limits sustainable by the demographic and political/organisational setting of those societies (which, it is argued, were particularly egalitarian), prompting a general crisis and a sudden decrease in the number of sites occupied (Cardarelli 1997, 2009; Peroni 1996: 200). The result of these dramatic processes would have been the movement and re-settling of groups of people from the Terramare to other zones of peninsular Italy to the south, an hypothesis that, according to Cardarelli (2009), may be corroborated by references in later historical sources (most notably Dionysius of Halicarnassus, writing around the middle of the 1st century BC). The pacing of this phenomenon would have been concentrated in the final phases of the Recent Bronze Age when the depopulation of the Terramare area is the most evident. Albeit undoubtedly fascinating, Cardarelli's migratory hypothesis fails to provide a rationale for the special relationship between the northern and the southern Adriatic (on which we shall say more in the last section of this chapter), witnessed in particular in the evidence from the areas of Salento and of the Grandi Valli Veronesi, located on the southeastern boundary of the Terramare area, for which the quantitative analysis of the Impasto material from Area IX of Roca has provided further elements.

Connections between the north and south were not limited to pottery but involved also other spheres of consumption. While 'traditional' northern goods such as amber seem to experience a general decrease in quantity during the Recent and Final Bronze Ages (Bellintani 2010), metallurgy is instead characterised by the opposite trend. This phenomenon is not as apparent as that related to the circulation of stylistic features in Impasto pottery, but this divergence is related only with the fundamental differences between the mode of deposition of metal artefacts in the north and south of peninsular Italy (Bietti Sestieri 1973, 2010a; Pearce 2007). Interestingly, Apulia seems to have been one of the main loci of this activity and, not surprisingly, these artefacts seem to have been concentrated in

the chief centres of the region, such as Scoglio del Tonno (Bietti Sestieri et al. 2010). Here, the set of metal objects discovered (unfortunately with very little contextual information), dating between the Recent and an initial phase of the Final Bronze Age, has revealed a strong incidence of types belonging to the Peschiera horizon.

Coming back to the broader region, interestingly, no category of metal items seems to have been *a priori* excluded from the north-south interactions, be it weapons of various types, personal ornaments, or everyday tools (with the sole possible exception of specialized tools, which, however, rarely appear in the archaeological record), making *de facto* an interpretation connected with the movement of specific groups of people such as warriors (e.g. Jung 2009, see also 7.1) less sustainable.

Again, as with pottery, this phenomenon does not emerge fully formed during the Recent Bronze Age but is to some extent anticipated by isolated finds in the previous Apennine phase. This is the case, for instance, with the Sacile swords identified in the *Ipogeo dei Bronzi* at Trinitapoli/Madonna di Loreto (see section 4.2), to which it is perhaps possible to add the slightly later 'killed' sword associated with the Recent Bronze Age jug from the possible cremation tomb at Molinella (Bietti Sestieri 2010: 158), and daggers of the Sant'Ambrogio type (popular in all continental Italy) recovered at Scoglio del Tonno, and again at Madonna di Loreto (Bianco Peroni 1994: 97-101; Bietti Sestieri et al. 2010, inv. 203834; Tunzi Sisto 2010a: 308-310 no. 6.13, 6.18).

Daggers constitute one of the main categories of the northern bronzes of this phase and are attested also at Torre Castelluccia (belonging to the homonymous Torre Castelluccia type A from tomb 10; Bianco Peroni 1994 no.1156; Müller-Karpe 1961, fig. 1.4; Vanzetti 2002: 120), and again at Scoglio del Tonno (again of the Torre Castelluccia Type; see Figure 5.3.3 a and Bietti Sestieri et al. 2010, inv. 203902, 203903). Another dagger of the Pertosa type (Bianco Peroni 1994, n. 1485: 149-152; Bietti Sestieri et al. 2010, inv. 203906), again from Scoglio del Tonno, has been recently interpreted (by Bietti Sestieri et al. 2010: 465) as an

Aegean import on purely typological grounds, primarily on the basis of the close resemblance with an example from Phylakopi (which is however normally considered exotic).

A special category of northern bronzes is that of decorated pins, whose distribution is chiefly in funerary contexts. The only exception to this pattern is, again, Scoglio del Tonno, where pins are plentiful and represented by an example of the Vidolasco type (Bietti Sestieri et al. 2010, inv. 203926, Carancini 1975, no. 1509), one of the type with a roll-head and pin of circular section (Bietti Sestieri et al. 2010, inv. 203844, 203835; Carancini 1975: 99-110), one of the type with a straight neck (Bietti Sestieri et al. 2010, inv. 203927; Carancini 1975, no. 1810), one of the Fontanella type of a slightly later date (Final Bronze Age) (inv. 203818, Carancini 1975: 200-202; see also Bietti Sestieri & Macnamara 2007: 79, n. 199) and one of the type with a straight neck (Bietti Sestieri et al. 2010, inv. 203927; Carancini 1975, no. 1810). Two further pins (Bietti Sestieri et al. 2010, inv. 203919, 203929, Carancini 1975, no. 649 and 572) have a double spiral head, one of which is unfinished and is of the Garda type, which is also attested at the Urnfield of Torre Castelluccia (see Figure 5.3.3 d, tomb 1; Carancini 1975, type B no. 574-575). Pins with northern Italian ancestry are also quite popular at the cremation cemetery of Pozzillo near Canosa (see Lo Porto 1997, tomb 59/60 no. 3, fig.54.3, tomb 16 no. 4 fig. 21.4, tomb 32 no.2 fig. 34.2), along with other kinds of personal ornamentations such as rings (Lo Porto 1997, tomb 78 no. 3 fig. 67.3) and fibulae (tomb 59/60 no.4 fig. 54.4).

Finally, but no less importantly, comes the category of knives of the Baierdorf-Scoglio del Tonno type (Figure 5.3.3 c,b) which have been recovered at Scoglio del Tonno (Bianco Peroni 1976: 13-15, n. 16), Torre Castelluccia (from tomb 4; see Bianco Peroni 1976, no.19; Müller-Karpe 1961, fig. 1.3; Vanzetti 2002: 120) and Roca (Pagliara et al. 2008: 267, V.2 from Area IX, Phase V). This last example is particularly important, as according to the preliminary (and unpublished) lead isotope analyses at the Curt-Engelhorn-Zentrum Archäometrie (CEZ) at Mannheim by Mehofer and Jung (Jung et al. 2011), the metal used for its

fabrication is compatible with a northeastern Italian source and it thus constitutes the earliest bronze artefact definitely imported from that area to Roca.

'Westernizing' items in the Aegean

The success of northern metal shapes, however, was not limited to southern Italy. Many of the types and items attested in Italy crossed the limits of the Adriatic, becoming quite widely distributed in the Aegean world as well as in the Levant (Bettelli 2002; Iacono 2012; Jung 2009; Sherratt 2000), where they are normally grouped under the collective label of Urnfield bronzes (Figure 5.3.4). As in southern Italy, these items represent a variety of possible functional categories. Among these are also some of the most iconic pieces of metalwork of the Mediterranean Late Bronze Age, such as the notorious Naue II (or Sprockhoff or Alleron, depending on the typology adopted) flange-hilted swords (related to the Sacile swords previously discussed), Peschiera daggers and Matri knives (a later evolution of the aforementioned Baierdorf type without the terminal tang-ring), all dating between LH IIIB and LH IIIC (i.e. Recent and Final Bronze Age in Italian terms; see Figure 5.3.3 no.7-8 and Bianco Peroni 1976, 1994; Harding 1984; Sherratt 2000). The swords (Figure 5.3.3 no.3-5) in particular enjoyed great popularity, becoming a standard weapon of the Mediterranean Late Bronze Age and being eventually also reproduced in iron (Sherratt 2000). As noted many years ago by Harding and recently re-emphasized by others, the closest parallels for most of these items are to be sought in Adriatic northern Italy (Bettelli 2002, 2004; Harding 1984; Jung 2006, 2009).

Along with these objects are also to be placed violin bow fibulae (rare in Apulia during the Recent Bronze Age but well represented at Roca; Pagliara et al. 2007: 318, 2008: 251), whose homeland has been in the past the subject of disagreement between Bietti Sestieri and Kilian (Bietti Sestieri 1973: 407; Kilian 1983: 84; Bettelli 2002: 133). According to the first scholar, on the basis of the type's evolution, the origin of these objects was to be sought in the Peschiera horizon of northern Italy, whilst for the second the attestation of fibulae in a LH

IIIB2 horizon at Tiryns constituted proof that Aegean fibulae preceded the Italian ones. However, by now the two positions appear much more reconcilable than back in the 1980s as the new, more secure parallel between Recent Bronze Age 2 and LH IIIB2-C Early proposed by Jung (2006) has eliminated the chronological gap between Italian and Greek finds.¹¹⁴

In the majority of cases Urnfield bronzes are not direct imports but reflect only the influence of specific craft traditions in Greece, an aspect that, however, in no way reduces the importance of the phenomenon. In a period such as the Late Bronze Age, when re-melting practices were ubiquitous, the will to maintain an exotic shape is a sign not only of the functional advantage that a specific type offers (rivers of ink have been poured to describe the revolutionary nature of cut-and-thrust swords; e.g. Drews 1993), but perhaps underlies also the will to guarantee the quality of a product through its appearance. Local production of some of these items is also testified by the famous mould of an Italian winged-axe of the Ortucchio type recovered in the occupational deposits of the House of the Oil Merchant at Mycenae (Figure 5.3.3 no. 6 and Bietti Sestieri 1973).¹¹⁵

Lead isotope analysis, however, has confirmed in certain rare cases (rare primarily because of the small number of archaeometric analyses of Late Bronze Age assemblages in Greece) that some of these objects were actual imports. This is the case, for instance, for the Naue II sword recently discovered at Koubala in Aetolo-Acharnania (Stavropoulou-Gatsi et al. 2009), for which an Italian provenance has been suggested, a few objects from western Greece (Jung et al. 2008) analyzed recently, as well as a violin bow fibula recovered at Chania in western Crete whose metal, according to the analysis, may come from Sardinia (although the type of the object is actually Italian; see Hallager & Hallager 2000: 207-214).

¹¹⁴ Violin bow fibulae dating to Recent Bronze Age 2 are for instance attested in central Italy at the Urnfield of Cavallo Morto in Lazio (Angle et al. 2004, tomb 26). It should be remembered also that the date of many of the horizons attributed by Kilian to a LH IIIB2 time frame has been lowered by the recent re-analysis by Stockhammer (see French & Stockhammer 2009; Stockhammer 2007).

¹¹⁵ It can be objected that no actual winged-axe has been retrieved so far in the Aegean. Yet this is entirely comprehensible in the light of the general pattern of Bronze recycling previously mentioned and affecting particularly work tools for their utilitarian nature (Harding 1975).

The Sardinian connection is indeed a fundamental aspect, whose relevance in central Mediterranean terms will be highlighted below, but whose importance for the eastern Mediterranean has emerged only relatively recently. The focus of this connection in the Recent Bronze Age is, undoubtedly, the site of Kommos in southern Crete. The excavations conducted here have revealed the existence of an important harbour site connected with the nearby centres of the Mesara plain and endowed with massive ship sheds (Figure 5.3.5), possibly the earliest structures of this type in the Mediterranean (Shaw & Shaw 1999). Among the wealth of pottery that has been recovered here, along with abundant Cypriot imports, a specific group of coarse handmade material dating mostly to LH IIIB immediately attracted the attention of scholars. This group, thanks to chemical and petrological analyses, has been proved to be of Sardinian provenance (Rutter 2006: 674-8). These discoveries have demolished in one go two main assumptions relating to east-west interaction during the Late Bronze Age. The first is that western pottery could not travel to the east. The second is instead related to the assumed ineffectiveness of coarse ceramics as transport containers. Watrous (1992: 182) has credibly made the case for the use of coarse Sardinian jars as transport containers for bronze loads on the basis of an analogy in the mode of deposition of hoards in Sardinia (Iacono 2012; *contra* Rutter 1999: 144).

The evidence from Kommos, however, is not the only hint of the existence of pottery-based connections from the west to the east during the Recent Bronze Age. Indeed, western elements have been recognized in several other late palatial/early post-palatial Aegean assemblages. These are mostly characterised by the occurrence of a peculiar group of pots, for which the use of the 'neutral' collective name of Handmade Burnished Ware (HBW henceforth) has in recent times replaced the older somewhat derogatory label of Barbarian Ware.¹¹⁶ Such materials can be easily distinguished from the rest of the contemporary pottery because they are handmade whilst production in the Aegean palatial world had

¹¹⁶ The name Barbarian Ware was implicitly connected with outdated theories (originating in the field of linguistics in the 19th century) concerning the supposed 'Dorian' invasion for which HBW was assumed to provide some sort of material confirmation (see Dickinson 2006; Iacono 2012 with references; Rutter 1975).

been almost exclusively wheel-thrown for a long time, as well as because of the unusual surface treatment, namely burnishing, which was unattested on coarse Aegean vessels of the same date. HBW has been identified not only in the Minoan and Mycenaean heartland but also further east on Cyprus, as well as in the Levant (Badre 2003; Boileau et al. 2010; Charaf 2011; Pilides 1994). The shape repertoire belonging to this group of material was probably not limited to select shapes and included a larger number of functions, with a certain predilection for bucket-shaped jars, often decorated with plastic cordons and reminiscent of the *olle* of Impasto tradition, and open carinated shapes similar to the cup/bowls discussed in the presentation of the material from Roca. Indeed, the existence of formal analogies between many vessels labelled as HBW and products typical of areas outside Greece, and in particular with Subapennine traditions, has long been recognised by various scholars (Bettelli 2002: 117-138; Hallager 1985; Jung 2006: 21-46; Rutter 1975).

The recent re-examination of the rich corpora recently published from Tiryns, Chania and Dhimini by Bettelli and others (see Adrimi-Sismani 2006; Bettelli 2009; Hallager & Hallager 2000, 2003; Iacono 2012; Jung 2006: 177-202; Kilian 2007) has conclusively demonstrated the predominantly Italian 'character' of most of these materials, leading to a gradual dismissal of previous theories which sought their origin in other areas to the north of the Aegean world (i.e. Bouzek 1985; Rutter 1975). As with metals, the Adriatic area of Italy (intended here in a rather broad sense, including also some of the main coastal sites on the Ionian arc i.e. from northern Calabria to the area around Taranto) has emerged as the locus where most of the western features recognised in Greece were also attested (Bettelli 2009; Jung 2006). Again, as happened with metals, the overwhelming majority of these materials were locally produced, as determined by a number of provenance analyses (Lefkandi: Jones 1986: 474-76; Menelaion: Whitbread 1992; Cyprus: Pilides 1994: 73-4; Tell Kazel: Boileau et al. 2010). Furthermore, similarities were not confined to an individual phase within the Subapennine but rather seem to have extended, to various degrees, over the whole period from its start until the inception of the Protovillanovan. In some of the major assemblages of HBW it is even possible to distinguish an evolution of the

shapes similar to that attested in Italy (see for instance the case of the carinated cup/bowls from Tiryns where the carination becomes more pronounced over time as in Subapennine Italy, Bettelli 2002: 122).

The Subapennine features identified within HBW, along with the presence of *olle* and carinated shapes, include (but are not limited to): projections of various kinds (bird-shaped [at Chania Hallager & Hallager 2003, 80-P-0062, Pl. 67c], with bovine horns [Knossos: Bettelli 2002 :122-124, RR:S, C18 inv. 343, RR C1-7 inv.354, RR:S E24 inv.356, RR:S 13 inv.350], axe-shaped [from Tiryns: Kilian 2007, no.311]), horned handles (i.e. at Dhimini and possibly at Teichos Dymaion: Adrimi Sismani 2006, fig.13d; Kilian 1988), complex knob and cordon features (from Tiryns: Kilian 2007, no. 271,¹¹⁷ 291, and Korakou: Rutter 1975: 18, no.1) and groove and dots decoration (from Volos-Palia: Bettelli 2009 fig.12.1, and Lefkandi: Bettelli 2009, fig. 12.5). It is interesting to note that almost all of these features (with the unique exception of the axe projection, which is too early) are present in Roca's Impasto assemblage, and occasionally precise matches of vessel types can be recognized (see Figure 5.3.7 and Pagliara et al. 2007: 337 no. IV 26, 2008:254-255 fig 11 no. 3,5, fig.12 no.12, 16).

Both from a chronological and geographical point of view, the HBW is in no way homogeneous (Bettelli 2009; Pilides 1994). The earliest examples of this kind of material date back to LH/M IIIB2 at Chania in western Crete and at Tiryns and Mycenae in the Argolid (Figure 5.3.8; Kilian 2007; Hallager & Hallager 2000, 2003; French 1989; Romanos 2011).¹¹⁸ In the first two sites in particular, the excavators have identified conspicuous concentrations of these materials. These assemblages include already pretty much the whole set of shapes typical of HBW, and there seems to have been relatively little change from LH IIIB2 to LH IIIC Early. In the latter period the HBW phenomenon extends to a number of sites primarily, but not exclusively, located along the Gulf of Corinth (Figure 5.3.8). Findspots include some

¹¹⁷ This example is actually an internal ledged vase, a shape typical of the Apennine and Subapennine tradition (see Cocchi Genick 2004a; Puglisi 1959).

¹¹⁸ Various scholars have also suggested other findspots. Rutter (1975, 1990) reports a jug from the Agora at Athens (but this could be residual Middle Helladic, as suggested by the excavators; Immerwahr 1971: 141, 258 Pl 62). Hallager indicates another possible findspot at Agia Pelagia on the northern Cretan coast but the material is unpublished (Hallager 1985: 303 note 110).

of the principal sites of the period both on Crete and on the mainland Aegean, including Lefkandi (Evely 2006, Pl. 4 no.2-3, :215 fig. 2.42 and Pl. 49); Sparta (Catling 2009; Catling & Catling 1981); Teichos Dymaion (Mastrokostas 1965, fig. 156-157) and Aigeira in Achaea (Deger-Jalkotzy 1977; for the complete list of findspots see Iacono 2012).¹¹⁹

In general terms, the numerical incidence of HBW in Aegean contexts is not particularly abundant, mostly constituting isolated finds or small numbers of fragments. The only exception to this general rule is Tiryns (Kilian 2007: 47; see also Stockhammer 2007: 87-89), which has possibly produced the largest assemblage in the whole Minoan/Mycenaean world, and where the quantity exceeds 30% of the total during SH IIIC Früh (LH IIIC Early, but this to be taken with extreme caution as the extent of the area explored has not been taken consideration and this, as we have seen [see section 5.1], can potentially affect considerably any estimate). This proportion dropped starkly in the subsequent SH IIIC Entwickelt (corresponding approximately to LH IIIC Middle). Despite this relative low frequency, according to some scholars (primarily Rutter 1990), the cultural impact of this class would have been quite important, influencing also the standard Lustrous Decorated products of early post-palatial times and resulting, among other things (for a complete list see Rutter 1990), in the adoption of

¹¹⁹ Aigeira is particularly interesting as the excavators have claimed that deposits with HBW on the acropolis of the site predate any attestation of standard LH IIIC Early Mycenaean pottery (Alram-Stern & Deger-Jalkotzy 2006: 11; Deger-Jalkotzy 1977). The material from the new excavations directed by Gauss (in the area to the east of the Acropolis), which I had the chance examine directly, can offer some additional data to this discussion. Among the possible HBW recognised, along with undiagnostic sherds, can be mentioned a fragment of a carinated bowl with a strap handle (from the surface context 5), a relatively early piece which would not contrast with an early attestation of HBW at the site during LH IIIC, as suggested by Deger-Jalkotzy. The material included also a horizontal handle (*a maniglia*) of a large closed shape (Figure 5.3.9), possibly a bi-conical vase or a necked vessel associated with carinated bowl FS 240, along with scroll-decorated closed shapes indicating that the context should be dated at least to LH IIIC early. Other interesting pieces are a small necked vessel with finger impressions on the rim (1975 /205-30, but this could potentially also be EBA or Final Neolithic). I would like to thank Walter Gauss for allowing me to inspect the material from the new excavation as well as for providing me with information on its context. The area investigated so far is rather small but a good amount of material has been retrieved, together with the remains of a wall possibly belonging to the Mycenaean phase. The material described here is not exactly subdivided in stratigraphic contexts as very little distinction could be identified within the deposits and some of the layers are artificial cuts. The area had been investigated already during the seventies but with very poor recording, so it is not possible to ascertain the provenance of the material retrieved during such excavations. In general terms it has been possible to note the presence of residual later material. This is not overwhelming (normally a few black glazed sherds here and there). The pieces identified by the code: 1975/xxx belong to the older excavation.

carinated bowls (but *contra* see Sherratt 1981), in the increase in frequency of wavy lines (FM 53) and in the occasional creation of (admittedly very rare) hybrid shapes of carinated bowl with horned projections (Figure 5.3.10). A good illustration of how these influences probably worked at a wider Mediterranean scale, from the northern Adriatic to the Aegean, is offered by the considerable resemblance between four vessels, all carinated bowls and all decorated with a wavy line (FM53): an Impasto version from the Villaggio Grande of S. Rosa di Poviglio in the Terramare area, an example in Aegean-type pottery from Roca, another from Tiryns and a last from Phaistos (id 10619; Bernabò Brea & Cremaschi 2004: 107, fig. 5 no.5; Borgna 2003: 449, Pl. 23. 68; Podzuweit 2007, Pl 47.12; Figure 5.3.11).

Finally, in some of the contexts where HBW has been recovered this was associated with Grey Ware, the class previously described (see section 3.2). Particularly significant is, again, the context of recovery at Tiryns, where most of the HBW and Grey Ware was recovered in the Unterburg with a certain concentration in Room 127, where was also discovered one of the specimens of a standard Mycenaean carinated bowl with an horned projection (Figure 5.3.10; see Belardelli & Bettelli 1999; Bettelli 2009).

The Aegean world in late palatial and early post-palatial times

From a social and historical point of view, the Aegean context in which the westernizing items and influences appeared is anything but a static one and synthesizing it here in any comprehensive way is definitely beyond the scope of this work. A number of major trends can be recognized in the period corresponding to the Italian Recent Bronze Age which goes from LH IIIB1 to LH IIIC Middle. LH IIIB in mainland Greece is considered, together with the preceding LH IIIA2, as the apex of the palatial era and a period of major changes in architecture as well as more broadly in occupational patterns.

Ambitious building activity was pursued in the palatial polities and this was probably not only limited to public buildings but entailed also some major private houses (Burns 2007; Shear 1987; Shelton 2010; Tournavitou 1995). Some of these buildings, often located away from major palatial complexes, have revealed conspicuous traces of capital accumulation identifiable in the presence of non-palatial storage areas, or elite material culture (such as at the House of the Oil Merchant, containing about 30 coarseware stirrup jars, and, more generally, all the so-called 'Ivory Houses' at Mycenae; see Wace 1953: 10-3; Tournavitou 1995). Such buildings indicate the existence of an elite sector of society that was not directly subordinate to the palaces, although indubitably having a close relationship with them, as attested both by cult practices (i.e. at the House of the Priestess at Tiryns, see Albers 1994: 111), and by the presence in some of these buildings of Linear B tablets (i.e. at the Petsas House and the Ivory Houses at Mycenae; Shelton 2002, Tournavitou 1995).

The building activity at palatial sites culminated in major modifications of the palaces themselves (at Tiryns [Maran 2010]; Pylos [Davis 2010] and Mycenae [Fitzsimmons 2006: 296-7]), as well as in the construction of massive fortifications at Mycenae, Tiryns and other sites (e.g. Midea and probably also Athens, see Deger-Jalkotzy 2008; Demakopoulou 1995; French 2010; Mountjoy 1988: 40-1).¹²⁰ Likewise labour-demanding works of water management were constructed at Mycenae, Tiryns and possibly also at Midea (Balcer 1974; Showleh 2007; Smith 1995).

These major changes, mostly dating to the second part of LH IIIB, were accompanied, according to some, by actions that could be interpreted in line with the will of palaces to keep under control most of the economic activities, such as, for instance, the shift of workshops closer to the main Palatial complex, as seems to have happened at Mycenae, Pylos and possibly Tiryns (Deger-Jalkotzy 2008: 388; in this last case, the entire Unterburg is interpreted as an area connected with the broader needs of the Palace).

¹²⁰ The larger area of the palace of Pylos too was probably surrounded by some form of fortifications although they were hardly comparable in grandeur to that of the main sites in the Argolid (Davis et al. 1997: 484).

It has been suggested that some of these activities (along with others, such as the increase of hoarding) hint, already during LH IIIB2, at the widespread destructions that will occur toward the end of the period and that were anticipated by a minor horizon of destructions already in LH IIIB1 (i.e. Deger-Jalkotzy 2008: 387-392, who proposes a direct linkage with the other elements, suggesting an incoming emergency; e.g. the notorious coastal guards mentioned in the Pylos tablets, but see also Palaima 1995).

If this was the situation on the mainland, on Crete after the fall of monopalatial Knossos (occurring, according to the majority of scholars, around the end of LH IIIA2), there is a very mobile equilibrium of political actors with a resurgence of burial display (Kanta 1980, 2003; Preston 2004). These dynamics resulted in the rise to a preeminent role of probably 'commercial' centres such as Kommos (see above) and Chania. As for this last site (which has also Linear B documents relating to this period), its main products seem to have been wine or oil, contained in coarseware stirrup jars that were often inscribed and that travelled widely, mostly around the Aegean and the Levant but also the central Mediterranean (these same vessels constituted the main containers recovered in the small store identified in the House of the Oil Merchant at Mycenae, see above and (Haskell 1985; Haskell et al. 2011; Maran 2005).

The main collapse of the palatial polities occurred by the end of LH IIIB2 (or for Pylos, according to Mountjoy [1997], at the transition to LH IIIC Early, but see also Vitale 2006), and its intensity and effects were felt all over the Aegean world (for detailed accounts of the destructions, see Dickinson 2006 and papers in Deger-Jalkotzy & Lemos 2006). The LH IIIB2 catastrophe (as it has been named), for which a variety of explanations have been proposed,¹²¹ produced the depopulation of substantial areas (i.e. Messenia, Laconia and partly the Argolid; (Eder 2006: 556; Dickinson 2006: 93; Hope Simpson 1965), while others were less affected and even increased their population (Achaia and possibly the Ionian islands, although

¹²¹ For surveys of the possible explanations proposed through time, see (Dickinson 2006; Morris 2006; Tainter 1988).

in this last area the trend is less uniform; see Dickinson 2006: 71; Eder 2006: 557; Moschos 2009; Souyoudzoglou-Haywood 1999: 137-9). Naturally enough, the collapse of the Mycenaean palaces needs to be placed also in a wider context constituted by the horizon of destructions occurring all over the eastern Mediterranean around the same time and that have been variously linked to movement of notorious semi-historical populations such as the Sea Peoples (themselves often linked to the central Mediterranean; see Drews 1993, Oren 2000; Sandars 1978). The post-palatial phase saw the general abandonment of the most typical and 'symbolic' palatial structures (i.e. the megaron, with the significant exception of Building T at Tiryns, see Maran 2010: 729) accompanied by a resurgence of activity in a selected number of former palatial sites, among which Mycenae and in particular the lower town of Tiryns (see section 6.3 and French 2010: 676-7; Maran 2010; Thomatos 2006).

Western connections

If this is the situation within the Aegean world in a period comparable to the Italian Recent Bronze Age, also abroad the situation seems to be more complex than in previous periods. The most important aspect that clearly emerges during this time is the consolidation of local production of Aegean-type material. As highlighted in the previous chapter, this started already in Apennine times, but it is only with the Recent Bronze Age that it becomes significant. The results of the large-scale research project pursued through the years by Jones and colleagues (Jones & Levi 2004; Jones et al. 2005; Vagnetti et al. 2009) has clearly shown that the Recent Bronze Age marks the period of major representation of local or, as it has been named in the last two decades or so, Italo-Mycenaean production, at a central Mediterranean scale. Both at a site-specific level and at a broader regional frame, the overwhelming majority of Aegean-type material recovered in Subapennine contexts was of local manufacture and this result appears particularly significant for regions such as Apulia and Calabria, which produce the bulk of the documentation available for this class. Local production was not aimed solely at the imitation of Aegean shapes, but involved also the introduction of entirely local classes of material, namely large wheelmade pithoi (that will become

popular only in the Final Bronze Age, see Chapter 6) and Grey Ware (see also Chapter 3), which starts toward the end of the Middle Bronze Age and is extremely popular in sites in Calabria and well attested also at some of the main sites of Ionian Apulia (most notably Torre Castelluccia and Scoglio del Tonno, see Gorgoglione et al. 2006; Levi et al. 2002).

Local production has a series of implications which go beyond the sphere of craftsmanship into the domain of social production and organization of local communities. Indeed, as suggested by Levi (2004), it implies the existence of a process of transmission of technical capabilities connected with the use of the wheel and the execution of decoration as well as, in the final stage, the construction and use of the kiln,¹²² which probably constituted the two most cumbersome and time-consuming tasks connected with these activities. The social correlates of these changes are extremely variable from site to site, and will be further discussed in the next section.

As for the distribution of finds (Figure 5.3.12) in the central Mediterranean, areas that were traditionally involved in interaction with the Aegean world at an early stage, seem now to be excluded by the main exchange circuits. This is the case of Albania, where the number of Aegean finds related specifically with LH IIIB is remarkably low, and the overall 'centre of gravity' of the eastern coast of the southern Adriatic seems to have definitely moved southward (Bejko 2009). The important centres of Epirus (among which is Dodoni), many of which were established in the previous phase (see section 4.3), seem now to control most of the material coming from the Aegean world, whereas in Albania finds are almost non-existent (only the handful of sherds from Sovjan and a D2 sword from Kelcyre, see Lera & Touchais 2007; Onnis 2008, 2008a). This shift was probably connected to the growing importance of the Otranto channel during this period, as suggested also by the increase of small fortified settlements in Chaonia in southern Albania (Koçi 1991). In Epirus, along with the episodic recovery of Aegean-type material in settlements, the custom of burying weapons (mostly swords) with important

¹²² The need to build the kiln opportunistically is implied by the lack in southern Italy of traces of permanent structures of this kind.

individuals also starts (Papadopoulos 1987), although perhaps it is more correct to speak of an extension southward of a trend already started in the previous phases of the Bronze Age to the north. This use is also attested to the south in Achaea, where warrior tombs are particularly well attested in a LH IIIB2-C early horizon (Deger-Jalkotzy 2006).

Proceeding westward and entering Italy, the coast of Apulia starts to be infilled with a large number of find-spots characterised by small quantities of material, as far as Coppa Nevigata in the north of the region. The really innovative feature of this period, however, is that findspots are not limited to the south but spread also to central and northern Italy, and in particular the same area in the north that we have mentioned before, i.e. the Grandi Valli Veronesi (see Balista & De Guio 1997; De Guio et al. 2009 and Figures 5.3.12 and 5.3.13). Finds are not abundant but are particularly significant for their location, especially if we consider the background of exchanges that connects the northern and the southern Adriatic (Bettelli et al. 2010; Iacono 2012; Jones et al. 2002; Salzani et al. 2006). Furthermore, the gap between northern and southern finds is also being rapidly filled by findspots in the Marche as well as in Abruzzo. The site of Cisterna di Tolentino (Percossi et al. 2005; Vagnetti et al. 2006), in particular, has yielded a relatively large assemblage (about 15 finds) considering the latitude, and was associated with traces of metallurgical activities and stone weights of a type attested in the Terramare area, but also to the south at Coppa Nevigata and in Mycenaean Greece (at Lefkandi, see Cardarelli 2004 :82, 87, fig. 3; Evely 2006: 275, fig. 55.4; Iacono 2012). Both in northern and in central Adriatic Italy, according to a limited number of samples analysed, Aegean-type material predominantly comprised Italian products (either local, regional or from the south, see Jones et al. 2002; Salzani et al. 2006; Vagnetti et al. 2006).

Excluding Roca, the largest assemblages dating to the Recent Bronze Age are in the Ionian area, both in Apulia and in Calabria (Bettelli 2002). In Apulia,

Scoglio del Tonno/San Domenico¹²³ continues to provide a large amount of material for these later phases, and to this can be now added the conspicuous assemblages recovered at Porto Perone/Satyron (about 140 sherds each, largely of local production) and a smaller (but still fairly large) from Torre Castelluccia (about 30 sherds, see Biancofiore 1967; Fisher 1988; Lo Porto 1963, 1964; Tylour 1958; Vagnetti et al. 2009, 2013 forthcoming). Less abundant and more in line with what was happening on the Adriatic side (Roca excluded) is the material from Cozzo Marziotta (Gorgoglione 1986), which proves that in the Tarantino there were also sites where this kind of material was scarce to non-existent (see the site of Bagnara in the same area; Fedele 1982).

Going westward, at Termito in Basilicata, a fairly large assemblage of Aegean-type material (only 36 finds have been published but according to the excavators the overall count amounts to some hundreds, see Bianco & De Siena 1982; De Siena 1986) has been recovered in a semi-underground structure very much like those at Torre Santa Sabina (see section 5.1; a similar context is also at Leuca: Ingravallo 1995). The stylistic peculiarities of the pottery from this site have been recognised by the excavators (De Siena 1983, 1986) and are characterized by the popularity of a metopal panel (FM 75) as well as by few pictorial sherds.

Moving now toward Calabria, another context that has produced a large assemblage of Aegean-type material is the fortified settlement of Torre Mordillo (280 sherds; Arancio et al. 2004; Trucco & Vagnetti 2001) where a hut, possibly with horse-shoe plan at least 6m long has been identified. Unfortunately, due to post-depositional disturbances, the copious Aegean-type material assemblage cannot be connected with any specific phase of the settlement.

Much better preserved and significant from the contextual point of view is the evidence from Broglio di Trebisacce (about 500 sherds), one of the main sites of the southern Italian Bronze Age (Peroni & Trucco 1994). The thorough exploration of the settlement has revealed, along with Prototapennine and

¹²³ San Domenico is a church in the modern city of Taranto, which has revealed traces of Bronze Age occupation. It was surely connected with the nearby settlement of Scoglio del Tonno (Bettelli 2002: 28).

Apennine occupation, the existence of rich Recent and Final Bronze Age deposits. Particularly interesting is the evidence in Area D, located on top of one of the terraces constituting the site. Here a large apsidal building, not dissimilar from that identified at Area IX Phase 3 at Roca, has been uncovered (Figure 5.3.14, see Moffa 2002). The overwhelming majority of Aegean-type material dating to this phase, as well as of wheel-made Grey Ware, came from this same area (Belardelli 1994; L. Vagnetti & Panichelli 1994).

Other important innovations within the sphere of interaction with the Aegean world occurred instead on the opposite side of Calabria to the west. Indeed, the Tyrrhenian 'route' that was documented during Protoapennine and Apennine times, seems now to be less significant for the processes responsible for the distribution of Aegean-type materials. Only 35 finds are recorded for LH IIIB-C Lipari, which is also the only site in the whole Aeolian archipelago which still provides such material. During this time-horizon is to be placed also the so-called Ausonian invasion, that is the establishment on the island of a material cultural assemblage chiefly inspired by continental Italy.¹²⁴ Campania, for which some evidence of contact was still present during the Apennine period (for Castiglione d'Ischia, see Marazzi 1994: 50) is now devoid of any Aegean-type finds. A few sherds have been occasionally recovered in later LH IIIC frame (among the others at Afragola and Pontecagnano, see Laforgia et al. 2007; Vagnetti & Bettelli 2006) but the gap between the heyday of Vivara (LH I-II) and these sporadic materials (LH IIIC) is substantial and, given this, they are more likely to be connected with the broad diffusion of Aegean-type pottery toward the end of the Bronze Age rather than with a specific role for this area.

¹²⁴ According to this widely accepted hypothesis, by the start of the Recent Bronze Age, a population coming from continental Italy invaded the Aeolian Islands. This proposal is grounded in the recognition of the wide destructions occurring in the area — eventually leading to the abandonment of settlements on the smaller islands — as well as to the replacement of the previous Milazzese culture with a material cultural assemblage, named *Ausonio I*, presenting strong linkages with the coeval Subapennine culture of southern Italy (for a synthetic view see Cavalier 2004). Although the 'Ausonian' invasion cannot be ruled out completely as a possibility, the technical feasibility of mass-invading an area as complex as the Aeolian Islands in a Late Bronze Age timeframe remains to be proven (the burden of the proof being on those who accept this possibility). All in all, the Ausonian does not represent the first dramatic change in the material cultural repertoire of Aeolian Islands and the 'invasion' hypothesis remains indeed only a possibility within a range of different equally plausible options that include more subtle dynamics of cultural change and influence between the Aeolian Islands and the Italian peninsula.

If the old hotspots seem now to lack the traditional indicators of contact with the Aegean world, other elements suggest that the overall Tyrrhenian area has not completely been abandoned by international trade circuits. Indeed, a concentration of Aegean-type material starts now in Sardinia, where a handful of sites have yielded this kind of pottery. The Sardinian connection is a fairly complicated affair whose importance will grow over time, reaching its apex in LH IIIC. This incorporated a number of different components, above all the Cypriot, whose influence is attested by the large number of oxhide ingots recovered in Late Bronze Age deposits on the island (Lo Schiavo 2003; Lo Schiavo et al. 2009; Vagnetti 1999a). To these same dynamics (which perhaps saw their most embryonic start already in the Apennine, as attested by the Cypriot influence at Thapsos in Sicily and early Sardinian finds such as the Decimoputzu ivory plaque, see section 4.3 and Vagnetti & Poplin 2005), are probably to be connected the scarce remains of Aegean-type material recovered in Latium as well as in southern Tuscany (mostly datable to a generic LH IIIB-C horizon; (Poggiani-Keller 2004: 473; Vagnetti & Jones 1993).

As for Sicily, some of the main loci of interaction established during the Thapsos age still continue in an initial horizon of the Recent Bronze Age. These are constituted above all by Cannatello and its hinterland (e.g. Milena with materials of LH III A2-B, D'Agata 2000: 19-59; see Chapter 4), as well as by Thapsos itself (in the cemetery, Vianello 2005: 163-5; Van Wijngaarden 2002: 229-236). One vessel (a jug of probable central Mediterranean manufacture, see Figure 5.3.15 and Vagnetti 2004) is attested also at the newly established chamber tomb cemetery of Pantalica in the Siracusano hinterland, not far from Thapsos, that gives the name to the Recent Bronze Age phase in Sicily (for Pantalica North see Alberti 2011; Leighton 1999: 149-50). Pantalica itself presents noteworthy features that have been interpreted by various scholars as indicators of the development of social differentiation within local communities. These are identified primarily in the establishment of a large cemetery with about 4,000 rock cut tombs, endowed with a rich metal and pottery assemblage, in the gorge of the Anapo Valley, as well as, supposedly, in the construction of the famous *anaktoron*, a large stone building

endowed with a complex plan (Bernabò Brea 1990; Leighton 2011; Orsi 1889, 1899; Tanasi 2004). As for this last element however, while some scholars stress the continuity with the Levantine influence attested also in the settlement of Thapsos (Tommasello 1996), others downplay such elements in the architectural layout of this building (Vianello 2005). More importantly, a re-analysis based on a study of Byzantine architecture in the area has suggested that the plan of the *anaktoron* is entirely consistent with that of a specific type of 9 cent. AD *kastellion*. This characteristic, taken together with the presence of numerous mortar fragments in the walls, as well as the abundance of later materials in the deposits related to the building, has led some to seriously doubt the traditional Bronze Age date of the *anaktoron* (Leighton 1999: 155-157, 2011; Messina 1993).¹²⁵

The same Pantalica North phase (which includes also the evidence from the other important cemetery of Montagna di Caltagirone) is, again according to Tanasi (Tanasi 2004, 2004a, 2005, see also Bietti Sestieri 1979 and Kilian 1983:93), characterized by the presence of numerous elements borrowed from the Aegean repertoire. However, some of the metal items mentioned (i.e. jewellery) have, as admitted by the same scholar (Tanasi 2004: 344), only vague connections with the Mycenaean world, whereas others such as fibulae have probably been mediated by Italy (see also 5.3). As for pottery (Figure 5.3.15), while some of the comparisons are fairly close (i.e. the local hydria and the collar necked jar FS 64 no 3-4) others appear equivocal. The askos (FS 195) which is compared to the local shape, is an extremely rare vessel (Figure 5.3.15 no. 9-10; most of the examples date to a LH I-II, i.e. Mountjoy 1999: 314, no.4).¹²⁶ Much more frequent in a LH IIIB and C timeframe (albeit still fairly rare) is the tubular version of the same shape (FS 194 Mountjoy 1986: 81, 108), which is fairly distinct from the vessels from Pantalica. The amphora is indeed similar to FS 58 (Figure 5.3.15 no.1-2), but there are plenty of vessels with horizontal handles or *anse a maniglia* also in Recent Bronze Age

¹²⁵ The proto-historic material recovered in the occupation layers of the building would therefore be in secondary deposition. According to Leighton's (2011) most recent proposal, the habitations connected with the Bronze Age phase of occupation of the site are to be identified in various other artificial caves located around the area.

¹²⁶ Mountjoy mentions only one example from a chronological horizon comparable with that of the Pantalica culture (Mountjoy 1999: 222, no. 132). The type to which the Pantalica vessels seem to be closest is the one with a disc on top that is mostly attested in Attica during LH III A2 (see Mountjoy 1999: 530 no.155, incidentally the same horizon as Thapsos material).

Italy which could have provided an inspiration. Finally the 'teapot' (Figure 5.3.15 5-6.) seems much closer in shape to a Cypriot Base-ring juglet rather than to a full sized jug with filter (FS 155, another extremely rare shape), and this impression is reinforced also in the light of the evidence of contact between Thapsos and the Levantine area during the Middle Bronze Age (see section 4.3). Taken all together, these considerations seem to suggest that the distribution of Aegean-type pottery reliably indicates that the amount of interaction occurring between Sicily and the Aegean world sharply declined after Thapsos times (possibly in connection with similar phenomena occurring in the southern Tyrrhenian), while a new western Mediterranean trade circuit, in which Cyprus was also strongly involved and whose main sphere of action was metallurgy, was gradually forming (to become more evident again in a later timeframe; Giardino 1995; Vagnetti 1999a). Similarities between Aegean-type and local pottery may well have been the outcome of the local evolution of a stimulus introduced in the Sicilian context in earlier (Thapsos) times, and the remarkable development of social differentiation within eastern Sicily seems to have been a process in which specifically Aegean influences seem not to have been particularly strong.

After this broad overview it might be useful to try to analyse in more detail the similarities between the assemblage from Roca and that of two of the main sites just presented. The assemblages of Broglio and Scoglio del Tonno have been selected for this purpose, first, because they are among the few approaching comparability in size to that of Roca, and second because they represent well the other main area of interaction presenting abundant Aegean-type finds, i.e. the Ionian area.¹²⁷ Also, from a contextual point of view, both sites have revealed similar traits (e.g. a large apsidal building), and the examination of Aegean-type pottery might help to understand whether similarities are only formal or can possibly have a functional rationale.

¹²⁷ As far as the material from Broglio di Trebisacce is concerned, the most recent finds, i.e. those from the 1990-1999 excavations, have not been included in the figures discussed. This is because, unfortunately, they have not been published in any way which can allow phase-by-phase comparison (see the update of the catalogue by Bettelli [2002] which does not include either contextual information, or traditional Aegean dates).

The percentage composition (Figure 5.3.16; data after Fisher 1988; Van Wijngaarden 2002) suggests, surprisingly enough, that the the assemblage of Roca is more consistent with that of Broglio than the closer Scoglio del Tonno. Indeed, while at this last site large and small closed shapes continue to abound, in Roca's and Broglio's assemblages small open shapes such as deep bowls (which are poorly attested in the sites of the Tarantino) seem to have been more popular. The large representation of amphorae/hydriae/large jugs at Broglio (constituting more than the 40% of the total) in reality can be, at least partially, due to the difficulty in separating non-diagnostic sherds coming from different simply decorated vessels (i.e. decorated only with a band or multiple bands, see section 5.1 for similar issues encountered at Roca) especially when fabrics are not particularly distinctive. Furthermore, the relatively scarce representation of carinated bowls is probably due to the fact that this shape is particularly abundant in the repertoire of Grey Ware, which is not counted here.

Taken together, these considerations substantially confirm the traditional interpretation of Scoglio del Tonno as a sort of emporium where goods arrived in their original containers to be then redistributed. This aspect is confirmed by the fact that, according to the limited number of analyses by Jones, not only are imports more numerous than in other settlements of the region, but they are represented predominantly by closed shapes (Vagnetti et al 2009: 173).¹²⁸

The large proportion of kraters attested at Scoglio is the only element which seems to contradict this interpretation. This aspect is interesting, particularly as this shape is not accompanied by a greater quantity of the other vessels composing the standard drinking set, namely the deep bowls. It can be suggested, as an explanation, either that perhaps kraters were traded for themselves or that they were incorporated into the local behaviour in combination with local vessels that took the place of deep bowls (but since there are no data on Impasto pottery, this is entirely speculative), or they were adapted to a different use not connected with wine consumption. These hypotheses are not mutually exclusive). The relative

¹²⁸ It must be highlighted, however, that the number of analyses is fairly limited (18 overall) and that, as a consequence, the pattern identified needs to be treated with extreme caution (Vagnetti et al 2009).

popularity of kraters in the central Mediterranean during the Recent Bronze Age seems to provide confirmation for the first hypothesis,¹²⁹ while the fact that kraters were associated in zone D at Broglio with carinated cups/bowls in Grey Ware suggests that non-orthodox drinking sets were equally possible (see catalogue in Vagnetti & Panichelli 1994).

From a stylistic perspective, the assemblages from the two Ionian sites appear to be very different one from another and yet they both have something in common with Roca. At Broglio the local dimension is emphasized by the numerous necked vessels and amphorae, for which a direct derivation from local prototypes is likely (see Bettelli 2002: 54, 56, no. 31, 36, attested also at Coppa Nevigata and vaguely similar to FS 58 and 70; Figure 5.3.17). This local dimension is also confirmed by the popularity of Grey Ware (which, as has been said, employs mostly shapes of local origin; see Belardelli 1994), as well as by the results of provenance analyses (which have revealed the preponderance of large Italo-Mycenaean products at the site, see Jones et al. 2009). Some of these peculiar shapes, and in particular the amphora with the short neck similar to FS 70,¹³⁰ are attested also at Roca where one example (see Figure 5.3.17 no. 3 and (Iacono 2010: 354, no. 22.8) in particular seems to witness an 'earlier' stage of the elaboration of this shape, where the body is more conical (an unusual feature for Subapennine pottery, more in tune with Aegean-type pottery) and where decoration is a complex composition of two different motifs (FM 49 and 61). Another shape that, as has also been said, was deeply rooted in the local Impasto tradition was the carinated bowl/cup, particularly in the version decorated with a wavy line on the carination, well attested at both Broglio and Roca (Figure 5.3.18), as well as at other sites on the Ionian arc (at Porto Perone; see Bettelli 2002: 46 no.12).

¹²⁹ Kraters are attested all over the central Mediterranean, in Sardinia (Orosei; Lo Schiavo 1999); Sicily (Milena; D'Agata 2000) and Calabria (at Termito and Broglio; see De Siena 1983, 1986; Vagnetti & Panichelli 1994). They are particularly well attested in Apulia (at Leuca, Torre Castelluccia, Torre Santa Sabina and, of course, Roca, see section 5.1 and Benzi & Graziadio 1996; Biancofiore 1967; Coppola & Raimondi 1995; Fisher 1988).

¹³⁰ This shape is thought to start only in LH IIIC Middle, while the central Mediterranean version is definitely earlier. In the Aegean early examples (similar but not identical) are attested in LH IIIB Pylos (Mountjoy 1997:135) as well as on Crete (Hatzaki 2007: 241, fig. 6.31 no.6).

As for Scoglio del Tonno, it has been stressed that jars (particularly piriform ones) continued to be popular even in this phase. Such a shape is quite rare at Roca but not completely absent, and one of these later examples is particularly close to one from Scoglio del Tonno, although possibly the motif represented is different (id 337, Figure 5.3.19; Fisher 1988 fig.15 no. 84). Another feature that is attested at Scoglio del Tonno and finds many comparisons at Roca (and perhaps also at Broglio) is the wavy line on the neck of closed vessels (Fisher 1988 fig. 16, no. 94, Vagnetti & Panichelli 1994: 403 fig. 302 no.4). At Roca there are a good number of examples of this element (i.e. no.11364) and as highlighted already by Guglielmino such a feature is particularly well attested in western Crete (see Guglielmino et al. 2010: 275; Hatzaki 2007: 238 fig 6.28 no.3). While this is undeniable, it must be stressed that 'Minoanizing features' are a critical aspect of an area that is much closer to Roca, namely the Ionian islands (at Lefkada, Souyoudzoglou-Haywood 1999, Pl 1, D/141), where the wavy line on the neck of closed shapes is also attested (Figure 5.3.20).

However, possible Minoan influence at Roca is not confined to a few decorative elements (we can add the typically Minoan flower on id 10620 and other motifs, i.e. id 509, Figure 5.3.21), for recent archaeometric analyses have proved the import of a specific type of vessel with a very precise function, the coarseware stirrup jar. For these, a western Cretan origin has been argued (Guglielmino et al. 2010) and it is very likely that they were accompanied by another typically Minoan shape belonging approximately to the same time horizon, i.e. the champagne cup (id 11231 compares well with Hatzaki 2007: 240 fig. 6.30 no.4). It is not coincidental that coarseware stirrup jars were among the LM IIIB Cretan artefacts that travelled the most (see for an overview of their distribution Haskell et al. 2011), being particularly well attested in the Argolid. This region, and in particular the site of Tiryns, offers numerous parallels for the Aegean-type material from Roca, ranging from the carinated bowls illustrated in the previous section (see Figure 5.3.11) to the previously mentioned feature of the wavy line on the neck (Podzuweit 2007, Pl. 97.15; 98.1), to stirrup jars (id 10151 and Grossman & Schaffer 1975: 69, Pl. 11), deep bowls (ids 10278 and 10369 which compare with Podzuweit 2007, Pl. 2.12, 3.3) kraters (id 10363 which compares with

Podzuweit 2007, Pl. 26.2) and amphoriskoi (id 27 Podzuweit 2007, Pl. 101, no. 1). Some of these vessels, (i.e. the krater and the amphoriskos, but other examples can be cited) also have parallels at other sites in the Aegean (at Kalapodi [Felsch & Jacob-Felsch 1996: 150, no. 264], Athens [Mountjoy 1995, fig 64.2] and many other sites) and, more importantly, in Apulia (at Porto Perone [Fisher 1988, fig. 36, no. 238] and Cozzo Marziotta [published as an amphora but quite likely to be a krater; Gorgoglione 1986: 24, fig. 1.2]).

A comparison of the motifs attested in the main assemblages of Aegean-type pottery in the central Mediterranean (Table 5.3.1) can help to understand the role of Roca as a vehicle for transmitting stylistic information from the Aegean world to the central Mediterranean, and also, as I have tried to make clear in the previous paragraph, the other way round. The overwhelming majority of the motifs that are attested at other southern Italian sites are recorded also at Roca, where there are also others not documented at other sites (i.e. FM 15 and 51). The only exceptions are constituted by pictorial motifs (FM 2 and 3; overall pictorial material is scarce at Roca) as well as by typical LH IIIA decoration (i.e. FM 59 and 60), for which the ephemeral nature of LH IIIA2 occupation can be claimed as an explanation (see sections 4.1 and 5.1). All in all, this overview suggests that, albeit undoubtedly important and confirmed by direct imports, the Minoan connection, like that with the palatial and post-palatial Argolid, is only one element of the multifold and kaleidoscopic lattice of external relations in which the site was entangled and which encompassed most of the Aegean world.

In LH IIIC Middle (i.e. the end of the Recent Bronze Age), the overall framework changes. The connection with the Aegean heartland seems to start to thin and the local component emerges more vigorously, as attested, for instance, by the popularity at Roca (Area IX Phase 5 and Area X Phase III), as well as elsewhere, of shapes with a recognizable local flavour like carinated bowls (see section 5.1). There is only one example of a possible Close Style vessel, but it is a strange piece for which Cretan parallels can also be proposed (id 10320; see section 6.3). Also western parallels seem to surface more frequently but this trend will mature only in the subsequent Final Bronze Age.

5.4 The southern Adriatic during the Recent Bronze Age: Modes of Production and Interaction

It is now time to try to interpret the evidence presented in the light of the theoretical approach adopted in this study, that is, highlighting what this evidence can reveal regarding the Mode of Production and Mode of Interaction in southern Adriatic societies (see section 1.3). At a settlement level, it has been possible to note a reduction in the number of sites, even if the unclear nature of the Subapennine assemblages (i.e. whether or not they constitute a specific regional expression of a wider phenomenon) does not allow far-reaching conclusions to be drawn from this pattern.

Less ambiguous changes seem to occur in primary production. Along with the constant preponderance of cereal cultivation and development of the use of pulses (see Fiorentino 1998: 217, 2010: 66), the most evident novelty is the possible introduction of olive exploitation. *Olea europaea* as a species was, of course, endemic to the whole Mediterranean area and although recently new methodologies are emerging, distinguishing cultivars from wild varieties is not straightforward, particularly in fragmentary archaeological material. Early domestication of olives has been claimed for various areas of the Mediterranean on various grounds (Besnard & Bervillé 2000; Heltzer & Eitam 1987; Runnels & Hansen 1986) but, until recently, the traces for such practice in Apulia were limited to a number of olive stones recovered in a few archaeological contexts (among others Monopoli and, as has recently emerged, Roca; Fiorentino 1998: 218; Primavera pers. comm.)

The pollen diagram from the Alimini lake published a few of years ago, has revealed the existence of a considerable peak in the incidence of this species, particularly around 1100 BC, which corresponds exactly to the last phase of the local Recent Bronze Age (Di Rita & Magri 2009: 303-304). Naturally enough,

anthropogenic activity need not be considered the only factor at work and, indeed, there are possible macro-climatic reasons for this trend, which at a broader Mediterranean-wide scale seems to be correlated with analogous changes occurring across the central part of the basin. Yet such explanations do not eliminate the basic fact that olive trees were, in this time-horizon, much more readily available.

To this extent, it is necessary to consider that the consumption of olive derivatives (i.e. oil) was attested in the area at least since Protoapennine times (Evans & Recchia 2003), and this became systematic at least from Apennine times (i.e. see the numerous LH IIIA stirrup jars at sites like Scoglio del Tonno, Fisher 1988; Taylour 1958). Consequently, since at least part of the Apulian population (if not most of it) was familiar with the use of oil, it appears extremely unlikely that they would have not taken advantage of this growing wild olive resource, for instance, through practices of selective gathering and/or experimental forms of cultivation.

As far as faunal remains are concerned, the Subapennine phase sees a decrease in the number of wild species, with an increase in the incidence of domesticates, which now account for almost the totality (91%) of the assemblages (see Figure 4.4.1). Particularly relevant appears to have been the proportion in this period of sheep/goats, for which exploitation for secondary products on a scale larger than before can perhaps be postulated (De Grossi-Mazzorin 2010).

All these elements may suggest that capital was being accumulated in the region, more than it was during the Middle Bronze Age. At the same time however, all over Apulia, not much capital was 'expended'. As has been highlighted, lavish burial rites are absent, and large scale public works are not particularly evident. Although in relation to the number of the sites, the number of fortifications is higher than in the previous period, with the exception of Roca's, none of these had been built *ex novo* during this phase.

What instead definitely increases in this phase are the traces of interaction, both at an intra-regional level and over the long range (sections 5.2, 5.3). As far as the first point is concerned, the network analyses illustrated in this chapter has clearly demonstrated the considerable increase in the number of stylistic features shared between each site. As has been underlined before (see section 1.2), each of the real world encounters implied by interaction as attested in the ceramic record, entailed some form of capital exchange and, consequently, the Subapennine evidence testifies a consistent increase in the circulation of surplus. This process was perhaps helped by the introduction of efficient pack animals such as donkeys, now attested in the region (Bökönyi & Siracusano 1987).

Such a trend was accompanied by a decrease in the overall variability in the Impasto assemblage from Apennine to Subapennine times. Albeit the increase in circulation probably played a role in this gradual process of homogenisation, this change is unlikely to have occurred without significant social implications (section 5.3). The gradual disappearance of decoration through the Subapennine marks the probable loss of the 'micro-identifying' dimension of pottery production postulated in the previous chapter (section 4.4). Also, the possible relation of this material with metal prototypes (section 5.2 and Damiani 2004), speaks of substantial changes in the value system of local communities.

Returning to interaction, the archaeological evidence indicates that the purely 'regional' perspective starts to make less sense as linkages now stretch from central and northern Italy to the main areas of the Aegean world (e.g. the Argolid, Crete and others). As for northern Italian connections, in this phase, these are attested primarily by pottery, and only to a limited extent by metal types (section 5.3). The reason for this dichotomy is probably to be sought in the high fluidity that metals have during the Late Bronze Age. As long as the mechanism of circulation worked, metal findspots were unlikely to concentrate in any intermediate point of the long-range exchange route which united continental Italy and the Aegean. Elsewhere (Iacono 2012) I have argued for the existence of informal exchanges in metals between continental Italy and the late palatial and early post-palatial

Aegean (more akin to the snapshot offered by the Cape Gelidonya wreck, rather than that of the Uluburun one).

This hypothesis was based on the co-occurrence of HBW and Urnfield bronzes at some key sites, as well as on the evidence at the site of Kommos, where Sardinian containers, similar to HBW, were possibly used for the transport of metal (section 5.3). The result of these activities was a diffuse, not overwhelming, process of 'westernization' of Aegean material culture which left traces in the most disparate domains of production (Iacono 2012). Although growing in later times (Jung et al. 2008, 2011), the evidence in terms of direct imports of metalwork, on which such an hypothesis was grounded, was admittedly very thin because, as almost universally acknowledged, re-melting and local production were ubiquitous practices during the Late Bronze Age.

Local production is a feature that characterizes also the opposite end of this long-range interaction, namely in Italy. Here, findspots of Aegean-type material are now widespread, particularly on the Ionian and Adriatic coasts. The small quantities and the lack of deposition in tombs seems to certify that, at least in a mature horizon of the Recent Bronze Age, this material has finally and completely escaped its earlier status as a 'luxury' (section 5.3).

Also, according to the analysis proposed in this chapter, Aegean-type materials appear to have been regularly present at sites which were central in local networks of interaction (section 5.2). If these elements are considered together with the high level of connectivity of these networks during the Recent Bronze Age, it is probably not proper anymore (particularly towards the end of this horizon) to consider Aegean-type material as an exogenous feature. If Aegean-type pottery ceased to be an element of Aegean influence in the central Mediterranean, then this aspect corresponds to a decrease in the 'influence', which means, according to our approach (section 1.3), either a decrease of intensity in interaction, which is ruled out by what was happening in the Aegean or, and this is probably the case, a balancing of Adriatic societies in their Relations of Interaction towards the Aegean world. And yet the presence of a few abundant assemblages (above all Roca but

also Coppa Navigata, Porto Perone Satyrion and Scoglio del Tonno), seems to continue to indicate a desire for emulating a powerful partner which contradicts this hypothesis.

The Recent Bronze Age represents the period in which the position in the Relations of Interaction of the central Mediterranean communities was lower in absolute terms, as well as that in which they dramatically changed. Indeed, periodisation of the Italian Bronze Age does not capture the more fine grained changes occurring in Apulia through the Recent Bronze Age. The evidence from Roca's sequence, to this extent, is critical for understanding this transition. The distribution of evidence has revealed the occurrence, after the Middle Bronze Age destruction, of a substantial contraction of the settlement (section 5.1). As far as finds are concerned, the most evident aspect of the Recent Bronze Age occupation is undoubtedly the quantity of Aegean-type material. Even if in the two areas sampled substantial differences in quantity of material are not apparent, profound dissimilarities concerning other aspects are nevertheless attested.

These relate primarily to production, albeit, unfortunately, little information is available on who carried this out. At this site, as well as at others in the central Mediterranean, the presence of resident Mycenaean potters or of potters with direct training in the Aegean or by Aegean people somewhere, can be suggested. This seems entirely plausible given the pattern and the range of mobility attested in the archaeological record from continental Italy to the Aegean just presented (Bettelli 2002: 71; Levi 2004: 234; Vagnetti & Jones 1991). The way this know-how was transmitted is difficult to assess. It might have involved those people who arguably were carrying out pottery production in an earlier period, such as women, as suggested in the previous chapter. There are some hints supporting this possibility (i.e. the occurrence of hybrid forms between local and Aegean-type pottery) but, notwithstanding the gender identity of those involved, one thing appears certain and this is that production had probably, by now, largely moved out of the ambit of the household.

Specialisation has been claimed by most of the scholars working in the field and undoubtedly there are elements suggesting this. The production of Aegean-type pottery entailed the use of a number of new tools, techniques and facilities, ranging from sedimentation basins for the levigation of the clays, to potter's wheels and semi-permanent kilns, probably constructed with a double chamber and able to reach a temperature of between 850 and 1050 C° (while firing of Impasto never exceeded 850 C°; see Levi 1999: 94; 2004; Van der Leeuw 1984). However, as the qualitative discussion of the material has showed, Roca had nothing comparable to a Mycenaean palatial atelier in terms of products' standards, as the variability in paint/clay colour seems to suggest (section 5.1).

Putting aside production, the most recognisable aspect in which Aegean pottery from the two sampled areas differs is surely shape representation. The discussion has already evidenced elements hinting at the possible occurrence of feasting practices in Area IX, but it is worth exploring this in more detail.

Feasting, intended as the possibly ritual sharing of food and (often alcoholic) beverages has recently been the subject of considerable attention within Mediterranean archaeology (Hitchcock et al. 2008; Halstead & Barrett 2004; Wright 2004), even if the interpretative potential of feasting episodes involving people with different cultural backgrounds has been little explored so far (among the few exceptions are Eriksson 2008; Tyson-Smith 2003). Theoretical discussion on this topic has tried to re-evaluate the role of commensality within the political arena of pre-modern societies. The contribution of ethnography and ethnoarchaeology has proved to be particularly important to this extent, highlighting the possibility of re-constructing past behavioural patterns connected with feasting on the basis of material cultural remains (Dietler & Hayden 2001). As a result of this thorough debate, a series of suggestions has emerged which try to frame the possible rationale beyond the extravagant sharing of foodstuffs as well as the possible field of action of these activities, according to different types of feasts. Most of these studies have recognized in the existence of a ritual significance, an element common to most feasting practices, albeit obviously 'ritual' as a concept does not entail necessarily the existence of a full fledged

religious ideology but rather encompasses a number of everyday practices endowed with symbolic significance (Dietler 2001: 69-75; Hitchcock et al. 2008). The possible motivations for feasting are potentially immense, ranging from corvée feasts aimed at the mobilization of labour, to celebration and formalisation of alliances, to coming-of-age ceremonies, to weddings, funerals or even compensation feasts for an aggression (Hayden 2001: 28).

Of course, exploring which of these types of events are represented in a specific feasting occasion goes normally well beyond what can be achieved through the analysis of the archaeological record alone. More useful, in relation to the kind of evidence that archaeology provides, is the essential list of indicators of feasting events suggested by Hayden (2001: 40, Tab 2.1), based on a number of ethnographic examples. According to this scholar it is possible to recognise feasting events within the archaeological domain paying attention to the presence or absence of features such as:

- rare or labour intensive plants or animal species;
- quantity of food items;
- evidence of waste from food items;
- special 'recreational' food;
- presence or absence and relative abundance of prestige items;
- destruction of wealth or prestige items (via intentional breakage or burial).

Putting aside the formal reasons for which feasting is done, according to Dietler (2001), it is possible to recognize some broad categories of feasts related to their strategic aims. Among these categories, of particular interest is the concept of diacritical feasts. In Dietler's (2001: 85) words, a diacritical feast:

"involves the use of differentiated cuisine and styles of consumption as a diacritical symbolic device to naturalize and reify concepts of ranked differences in the status of social orders or classes"

In plain words, the distinctive characteristic of these feasts is the intention to distinguish a specific group of people that is taking part in the event, in order to stress their special status within the feasting arena.

With this in mind, we can now look back at Roca's evidence and note that many of the suggested criteria are met by it. Indeed we do have what seems to be a ritual context, whose nature is suggested by a 'sacrifice' and the lack of consumption of the meat on the animal bones buried. Also the concealment of the sacrificial deposit, with the thick pavement, is even more suggestive of a ritual significance that perhaps can find a parallel in the widespread practice of foundation deposits (Hunt 2006). A sacrifice, especially if conducted with the modalities attested here, constitutes undoubtedly a waste of food (in this specific case on a quite large scale). Also it can be noted that the food offered in the feast was particularly labour intensive. This is not valid only in relation to the amount of surplus that is needed to maintain some of the animals sacrificed (such as, for instance, cattle), but also in relation to the wild species attested in the remaining faunal remains, whose procurement required a skilled and substantial hunting effort.

As for prestige items, in this phase of the Recent Bronze Age (mature but not final), it can be asserted that probably Aegean-type ceramics still had some sort of prestige 'halo', although this was rapidly declining with the increase in local production. Moreover, the consumption of a 'recreational food' such as wine, another of the proposed criteria, seems to be suggested, as we have seen, by the abundant presence of kraters and deep bowls. Last but not least, quantity is a point that requires a bit more elaboration. What is interesting, in addition to what is attested, is what is actually missing. The Minimum Number of Individuals calculated only on the certain sacrificial remains, suggests that these should represent 3 cattle, 2 pigs and 2 sheep/goat (Rugge in Pagliara et al. 2008: 270). On this basis it is possible to propose a conservative and cautious estimate (based on Vigne 1991) of the amount of meat involved in the feasting event that was related to the sacrifice of the animals. Subtracting the weight of the portion deposited without consuming the meat, we still have a figure of about 160 kgs of meat,

enough to feed abundantly 530 people which, however we decide to estimate the population of a 3 ha site, constituted the large majority of the population.¹³¹ Even supposing that this event was protracted over several days, the number of people that could have been fed (say 176 if three days) would still probably include a considerable portion of the inhabitants of the site. And, of course, it is important to bear in mind that this figure relates only to the animals in anatomical connection and not to the other abundant meal remains in the same context (that constitute the majority).

Once the scale of the event documented by the faunal assemblage from Roca has been assessed, it is possible to look again at the ceramic record, trying to establish if the order of magnitude attested in this category of evidence is to some extent comparable. It has been seen how the Impasto assemblage encompassed a wide range of possible uses, the majority of those normally performed through pottery (section 5.1). The presence of Aegean-type material in this period does not cover any 'functional' gap in the local production, perhaps with the possible only exception of jugs, which are quite rare in Impasto. Furthermore and more importantly, comparative quantification has clearly shown that, albeit numerous, throughout all the phases of the sequence, Aegean-type pottery from Area IX constituted only a small percentage of the overall ceramic assemblage, and from these it is also necessary to subtract the vessels not connected to communal drinking which, although not numerous, were nevertheless present (section 5.1). It is possible that local vessels were also used to consume wine, together with the Aegean-type ones, but, if this was the case, there would still be a fundamental discrepancy between those who in the feast had access to a proper Mycenaean cup and those who did not.

¹³¹ The average ration is set to about 300g. The calculation has been based on the conservative estimates of Vigne (1991). For each bovine has been postulated an overall amount of 100 kg of meat, while for pigs the figure is 40 kg and for sheep/goat 8 kg. This multiplied for 3 cattle, 2 pigs and 2 sheeps/goats, totals 396 kg of meat. From these it is necessary to subtract the weight of the buried parts which has been calculated as follows: for each leg has been deducted $\frac{1}{4}$ of the overall weight while for the heads and feet $\frac{1}{10}$. The small tracts of spine that have been also found in connection are compatible with standard butchery practices and have therefore not been subtracted. There is one foot and one head of pig, and the same for sheep/goat, while there are 9 cattle legs, for a total of 234.6kg. The remaining meat amounts to 161.4kg, which is equivalent to about 530 rations.

The pottery assemblage suggests that something very similar to what has been defined as a *diacritic feast* was going on in Area IX during Phase 2. In the feasting event occurring here, a group of people, probably corresponding to those hosting the banquet, were using a subtle strategy of exclusion in order to mark differences between different sets of people taking part in the feast.

To this extent, the specific mode of deposition of the animals bears considerable significance in relation to the cultural background of those who were performing the sacrifice and therefore probably hosting the feast. Indeed although in recent and not-so-recent studies on Aegean ritual and religion many have stressed the possibility of non-burnt sacrifices in Aegean Bronze Age sacrificial practices (Bloedow 1996; Marinatos 1986; Nikoloudis 2001), as a matter of fact, the overwhelming majority of archaeological examples that can be retrieved in the literature, report the use of fire at some point in the process (Halstead & Isaakidou 2004; Whittaker 2008).¹³² Also the deposition of such large portions of big animals, their subtraction from the human domain with an act that is, from many points of view similar to that of burial practice, is to my knowledge not attested in the Late Bronze Age Aegean. As noted by Guglielmino and others (2010: 31), similar practices — though by no means identical — are instead described by Tunzi Sisto (1999: 144-146) for the hypogeal tombs from Trinitapoli, which were also used for cult practices not directly connected with burials, and which therefore constitute a potential parallel for the ritual witnessed at Roca. This may suggest that, despite the large quantities of Aegean-type material retrieved, probably those in charge of setting up the feast were local people from the community of Roca. However, the very fact that Aegean-type material was indeed adopted with clear reference to wine consumption and within the context of a large scale feast, a practice completely unattested outside the funerary ritual in Italy, suggests that making reference to the Aegean cultural cosmos was a priority for those organizing the feast. This, together with the imported nature of some of

¹³² The deposition of disarticulated animal bones in tombs or cultic contexts as well as the burial of complete animals in tombs (e.g. at Vronda: Day & Snyder 2004: 69-71; Archanes: Sakellarakis & Sapouna-Sakellarakis 1997: 262; at various locales in Middle Helladic and Mycenaean Greece: Cavanagh & Mee 1998: 33, 114-5) cannot be considered valid parallels, since they lack the main feature of ritual attested at Roca, i.e. the sharing of a consistent part of the victims' meat between the living and the supernatural entities (whether gods or ancestors).

the vessels adopted, suggests the possible involvement of people coming from the Aegean world (although it is not that easy to assess from which part of it given the range of comparisons attested). If this is the case then, the feast in Phase 2 of Area IX would represent an attempt by a local elite group to stress their closeness with their Aegean partner, within a critical social event highlighting at the same time the distance between them and the rest of the population of the site, who could participate in the feast but could not have access to the consumption of wine and/or to the proper Mycenaean drinking set.

The sharing of wine restricted to these two groups reinforced an intercultural class-based solidarity which probably had its economic rationale in the exchange of other goods. Among these were probably many of the goods highlighted in this and the previous chapter (i.e. wool, oil, to a minor extent purple dye whose production is decreasing during this period, see Cazzella et al. 2005), as well as, perhaps, already copper from Adriatic northern Italy.

The feasting event or, possibly, the series of feasting events attested in Area IX, probably mark the lower position in the Relations of Interaction between Roca's inhabitants and their Aegean partners (whose provenance as we saw, was likely to be from various zones of that cultural area). However, after this point, a few elements seem to suggest that, towards the end of the Recent Bronze Age, something was already starting to change.

Naturally enough, exchange activities also offered advantages for the local populations. This is hinted at by the increase in the proportion of storage vessels which seems to follow the same trend as the frequency of Aegean-type pottery (section 5.1). In other words, when Aegean-type pottery was better attested, there was need for more storage vessels at the site (Figure 5.1.36). Proposing the somewhat simplistic but not entirely arbitrary, equation, according to which more storage vessels stand for more surplus, it is possible to suggest that the amount of surplus increased in correspondance with the major phases of interaction with the Aegean world, namely in Area IX Phases 2 and 5. Also, interaction and the capital funnelled through it is no longer mediated only by the Aegean world, but, possibly,

also by new alternative distant partners. These are perhaps witnessed by some of the materials recovered in the layers belonging to the subsequent phases of Area IX, and most notably by White Impasto wares. The frequency of this non-Aegean class of material follows a trend opposite to that of Aegean-type materials and in particular they increase during Phases 3 to 4 when Aegean-type material is less well attested (Figure 5.1.37). The fact that the increase of this material is not accompanied by a general increase in the frequency of *olle* and similar storage vessels in Impasto, may indicate the different nature of the goods that were circulating, which did not necessarily entail the need to use a larger proportion of ceramic containers, and this situation fits well with a substance with high value and relatively low bulk such as bronze.

It has been said that White Impasto has significant analogies with similar pottery from the northern Adriatic area. Since the excavation of some of the main sites of the Grandi Valli Veronesi (e.g. Fondo Paviani; see Leonardi & Cupitò 2009) and the systematic study of Recent Bronze Age Impasto at Roca has only recently started, it is not possible at present to propose specific comparisons between pottery types. Furthermore, in the absence of any petrographic/compositional analysis, it is also not possible to assess the presence of imports, albeit the fact that this group is composed only by *olle* is potentially interesting. In the case of local production, this would testify, similarly to what was happening with 'standard' HBW in Greece, an interest in separating a group of products from the remainder that was contained in standard local products, perhaps suggesting visually a connection with the northern Adriatic. It is interesting to note that this 'visual code' was essentially limited to the starting and ending point of the exchanges, that is Adriatic northern Italy and Roca, never extending beyond the boundary of the Adriatic, where in the overall repertoire of HBW in Greece, the presence of fabrics similar to White Impasto has never been recorded (Strack 2007). However even if White Impasto had nothing to do with northern Italy, the development of this category of material clearly indicates the ability of local communities to produce storage vessels which were distinctive and easy to recognize, therefore the desire to mark out their content.

The new high peak in Aegean-type material at the end of the Recent Bronze Age saw a fundamental levelling of the differences between the assemblages of Area IX and X, which we recognised previously (section 5.1). These are now compositionally very similar and shapes of 'local' tradition such as carinated bowls/cups are also well attested. The relatively high proportion of drinking vessels in both Area IX (Phase 5) and X (Phase III) suggest that some of the practices that once were limited only to certain areas of the settlement were now more widely spread. In Area X Phase III, the development of specialised craftsmanship connected with the manufacturing of an extremely valued exotic material such as hippopotamus ivory (Guglielmino et al. 2011). Dating to this period is also the earliest direct attestation of the circulation of metal from northern Italy, as indicated by the results of the lead isotope analysis effected on the knife retrieved in Area IX Phase 5 (Jung et al. 2011).

Again in these two phases (Area IX Phase 5, Area X Phase III), the new technique adopted for rebuilding the fortification of the site, which entailed the use of large squared stone blocks, was not only new but also far more labour demanding than that previously attested, which involved primarily (but not exclusively; see section 4.1) the use of small stones.

All this implies that these two horizons coincided with a period of major capital accumulation at Roca and that the new sources of this capital, different from that of the 'traditional' Aegean partners, were constituted both by the exchanges with Adriatic northern Italy and with the surrounding Recent Bronze Age sites, as hinted at by the unprecedentedly high level of connectivity indicated by the network analysis. Therefore, if there was more surplus available to the community of Roca as a whole, it is probable that there were also more resources available to the groups involved in interaction, to be invested for the improvement of their position in their relations of interaction with their Aegean partners. In a Late Bronze Age context, this means primarily accessing sailing technology and

again at Roca this possibility is hinted at by the ship representation recovered on the block of the new fortifications (Figure 5.1.35).¹³³

Because of the extraordinary nature of the evidence provided by the Recent Bronze Age sequence at Roca, at present it is not unproblematic to assess whether the increase in the position in the Relations of Interaction of the local population with respect to their Aegean partners involved only this centre or constituted a more generalized pattern. Various elements in the contextual evidence from other Apulian and southern Italian sites seem to support this hypothesis. The large apsidal building at Scoglio del Tonno (however dubious its plan is) and at Broglio are similar to the one attested in Area IX Phase 3 at Roca, while the thick crushed limestone pavement of the same area has a parallel in Recent Bronze Age Coppa Nevigata (section 5.1). Leaving aside formal analogies, the cases of Broglio and Scoglio del Tonno are particularly interesting. For the first site, the in-depth analysis of the finds have revealed a consistent 'local' dimension in pottery production which is perhaps comparable to what it has been described for the later Recent Bronze Age phases at Roca. For Scoglio del Tonno, the nature of the Aegean-type assemblage does seem to point to different dynamics. The proportion of large closed shapes, persistently high through time, as well as the important role played by the site toward the end of the local Middle Bronze Age, suggest that local communities were 'flooded' in imported and/or locally imitated goods and that these transactions did not need to be mediated, as happened at Roca, through complex food-sharing practices. Despite this difference, the noteworthy presence of linkages with northern Italy at Scoglio del Tonno, particularly as regards metal types, represents a substantial analogy with what was occurring at Roca, particularly taking into consideration the evidence from this last site dated to the subsequent Final Bronze Age phase.

¹³³ Albeit no sail is visible on the representation, the shape of the prow does not seem comparable neither with that of longboats or similar vessels nor with the warrior galleys so ubiquitous in late LH IIIC imagery (Wedde 1991, type I-II and VI).

Chapter 6

The surf solidifies: old connections and new equilibria at the end of the southern Adriatic Bronze Age

6.1 The individual community during the Final Bronze Age

Archaeological traces of the community

Many of the processes that have been observed in their embryonic form in the Recent Bronze Age see their full development only in the subsequent Final Bronze Age phase (Table 6.1.1).

Considering the general pattern of occupation, the Final Bronze Age is characterized by both elements of 'continuity' and 'discontinuity' (Figure 6.1.1, site names in Table 6.1.1a). The different zones identified in the previous chapters (coastal, semi-coastal and hinterland) seem to continue to be occupied in about the same proportion both in the Recent and Final Bronze Age, with only minimum differences (Figure 6.1.2). The number of new sites established, instead, increase considerably from Subapennine times, perhaps hinting at an inversion of the process of 'site selection' (i.e. decrease of occupation in some selected areas within the region see section 5.1) recognised for the Recent Bronze Age (Figure 6.1.3). In general terms, the overall magnitude of occupation grows substantially and the number of sites per year approximately doubles from the Recent Bronze Age (0.27 versus 0.63). Again, as for the previous periods, the evidence from the Cisternino area (see Figure 6.1.1 detail a and Recchia & Ruggini 2009: 42), where most of the Middle Bronze Age sites abandoned in the Subapennine period are now again frequented, allows us to assess this trend more clearly. It is necessary, however, to

bear in mind the chronological uncertainties advanced by Recchia & Ruggini (2009) regarding the reality of the trend of 'depopulation' recognised for the Recent Bronze Age (see section 3.2), as well as the fact that sites belonging to the Final Bronze Age in this survey are actually dated generically to a horizon encompassing also the first part of the Early Iron Age. A cautious interpretation of this data suggests that the process of 'site selection' of the Recent Bronze Age has at least stopped and if a new trend of more capillary occupation of the landscape was starting, this was a long-term process, extending well into the Early Iron Age. Among Final Bronze Age sites, an even larger proportion is endowed with walls (30% versus 27% in the preceding period). However, the chronological position of many of these monuments within each site sequence is not always straightforward, and only a minority are built during this period, while the majority dates to earlier chronological horizons and for many of them it is not sure whether they were still used and to what extent (Cazzella & Moscoloni 1998). Two secure cases of Final Bronze Age walls are those from Salapia and Roca (where, as we shall see, the fortifications are again rebuilt during this period) while the construction of the Scalo di Furno walls is more difficult to date (due to the lack of final publication; see Lo Porto 1990; Guglielmino & Pagliara 2004; Rossi 2011).

As in the Subapennine, also during the Final Bronze – Protovillanovan times scarcity of tombs is a characteristic of the period. This class of evidence is represented almost exclusively by the continued use of cemeteries established in the previous period, while new contexts are very rare. An example of the first case is Torre Castelluccia, where the cremation necropoleis has also tombs dating to the Protovillanovan (Orlando 1995; Vanzetti 2002). New contexts are attested to the north of the region, namely at Madonna del Petto near Barletta (Muntoni 1995, 1998). This context is an interesting novelty because it represents the earliest attestation of the *enchythrismos* ritual (i.e. inhumation inside pottery jars) and because tombs are probably located within the settlement and not in a 'formal' extramural burial area, as was the case for dolmens and cremation cemeteries. The association of these two features will have a long history within the region (particularly in the Salento to the south), continuing essentially unchanged until Roman times (Becker 1983; Iacono 2008).

Another interesting innovation related to this phase is the re-use of old tombs, attested by a few examples in the south of the region. One of these is perhaps at Cardigliano Specchia, a long-lived site where together with Neolithic and Protoapennine material, minor traces of very late Subapennine and Protovillanovan material were also recognised. Among these are also an ovoid jar and a carinated bowl which, according to their diameter, might have represented the container and the lid of a cremation burial (Figure 6.1.4; Orlando 1997: 295-298, no. 10, 16). Particularly significant is an example from Vanze (the related settlement is possibly Fondo Lafranca, Orlando 1995: 27-8), where an individual was inhumed in the chamber of one of the Middle Bronze Age dolmen mounds and the deposition was accompanied by a violin bow fibula dating to the Final Bronze Age.¹³⁴ The interesting aspect of this burial resides not only in the re-use but also that it constitutes one of the earliest examples (along with the 'anomalous' burials in the walls of Coppa Nevigata and at Spinazzola, see Recchia 2008 and Venturo 2010) of inhumation of a single individual, while traditionally this ritual was reserved for multiple burials. Such modification might be due to influence from the Urnfield tradition (of Pozzillo or Torre Castelluccia) where tombs were normally individual, perhaps mediated by practices such as the *enchythrismos* (see below and Peroni 1996: 369).

The main phenomenon which characterises the Final Bronze Age is undoubtedly metal hoarding (Bietti Sestieri 1973, 2010a; Peroni 1996: 362-4). Such a practice, for which unfortunately contextual data are almost completely absent, appears to have started in the region already in the previous period, although it acquired a noteworthy dimension only during Protovillanovan times. Dating to the end of the Recent Bronze Age is the famous hoard of Surbo (not far from Lecce; Figure 6.1.5), as well as another one more recently recovered at Torre Castelluccia (Gorgoglione et al. 1993). That from Surbo is particularly interesting as it included, amongst a wealth of other objects, an Aegean-type F sword (Figure 6.1.5, no.1). This hoard has been interpreted by Bietti Sestieri as belonging to an

¹³⁴ Another instance of re-use of older tombs at the same site is a chamber tomb possibly dating to the Copper Age, where again later material was present (Orlando 1995, note 8)

Aegean bronzesmith (see Bietti Sestieri 1973: 388, 2009: 151). During the Final Bronze Age hoards are fairly widespread in Apulia (11 overall, Figure 6.1.6), particularly in Salento (10) and their number is even larger (13, 11 in the Salento) if we include also those containing material to be dated to the earliest part of the Iron Age (Salapia and Soleto see Peroni 1996: 362-364). The composition of these contexts can vary considerably: there are hoards containing only one type of object (such as that from Salapia; Figure 6.1.7), and others that are extremely heterogeneous (such as that from Scorrano), although they quite regularly contain axes, chisels, hammers and occasionally ornaments (primarily pins but also necklaces and others; Bietti Sestieri 1973; Peroni 1996: 363-364). In the very few cases where data on the deposition are available (at Reinzano, Roca and Torre Castelluccia; see Gorgoglione et al. 1993; Maggiulli 2009; Peroni 1996: 363), items were contained in Impasto vessels, but other modes of deposition are also attested (i.e. hoard of the gold at Roca; see below and Maggiulli 2009). The cumbersome nature of certain deposits (i.e. those at Manduria, one of which counted some 117 shaft-hole axes, see Quagliati 1903: 109) suggests that in some cases the objects were simply placed in a pit in the ground.

Data on internal organisation of settlements is very scant. Some of the Recent Bronze Age structures recognised in the previous chapter actually continued also in the subsequent period, as in the case of Coppa Nevigata and Torre Santa Sabina (see section 5.1 and Coppola & Raimondi 1998; Recchia 2009). At Torre Castelluccia, a complex stone building might have been related to the very end of the Final Bronze Age (i.e. the turn of the 10th century BC). Although not much can be said about its size (Gorgoglione et al. 1993: 30), its plan is complex (Figure 6.1.8), and the use of stones as building material represents an innovation for local domestic architecture. The recovery of a hoard (although earlier than the structure), as we shall see, presents interesting analogies with what is attested at Roca. At Punta Meliso (Santa Maria di Leuca; Figure 6.1.1 no. 131), Final Bronze Age occupation has been identified on top of the remains of the Subapennine village. Buildings (Figure 6.1.9) were probably small semi-underground huts of about 2.5x3m with one larger example measuring some 6.40x4.70m (Cremonesi 1978; Orlando 1997b), following a type of habitation well attested since the Middle

Bronze Age in Apulia (see below and sections 4.1, 5.1). Along with these huts, other structures identified include a possible silo and a somewhat earlier potsherd pavement, probably connected with an earlier hut. A semi-underground structure nearly identical to those of Leuca (in this case endowed also with perimetral postholes, see Figure 6.1.10) has also been identified at Otranto in Area 3 (Orlando 1996). Although the archaeological deposits connected with its occupation were almost completely cleared out by later Early Iron Age deposits, the analysis of material indicates that the structure was occupied through most of the Final Bronze Age (with the possible exclusion of its initial phase), and two small pits have been connected by the excavator with iron production (Orlando 1996: 236). From the brief overview just offered it can be observed that there is a dearth of contextual data and the evidence from Roca is one of the very few rich examples dating to the Final Bronze Age, not only in Apulia but more broadly in southern Italy (Bietti Sestieri 2008).

Roca during the Final Bronze Age

After a possible contraction during the Recent Bronze Age, the site expanded over a wide zone, encompassing most of the promontory and, interestingly, also re-using some of the semi-underground structures of the Middle Bronze Age (Figure 6.1.11).

The fortifications are now rebuilt (at least on their interior face; see Guglielmino & Pagliara 2004: 568, fig. 245), adopting a completely different technique that entailed the combined use of wooden posts and unshaped stones. During the Recent Bronze Age the area of the gate had been affected only by minor changes in the orientation of the main passage, and is now endowed with a wooden cladding, perhaps connected with a superstructure in the same material (Figure 6.1.12).

Moving to the interior of the settlement, Area VI was occupied by a large building (Figure 6.1.13), measuring on its main axis at least 20 m and constructed

with the technique typical of this phase at Roca which entailed the use of large postholes (see below). Inside the building were 4 large wheelmade pithoi, for an overall capacity of about 2,400 liters (600 litres each, see Guglielmino 1999). Close to Area VI, in Area XII, investigations have revealed important traces connected with metallurgical activities on which more shall be said in the next section (Figure 6.1.14, see Guglielmino 2006a).

Many of these areas have been investigated only for the final moment of the Final Bronze Age occupation at the site, a phase terminated by a vast fire event involving most of the promontory. The initial part of the Final Bronze Age has been explored less systematically, albeit the two areas sampled have produced evidence related to this period.

Final Bronze Age 1 in Area X (Phase IV)

In Area X this is Phase IV, during which there is a decrease in the amount of Aegean-type material, which now comprises 125 families of sherds (vs the 197 of the previous phase, see Table 6.1.2). Again, as for Phase III, the exploration has involved two adjacent trenches to the north and south. Detailed contextual information is available for the southern trench (Figure 6.1.15). Here, the spatial distribution of materials and structures suggests that the area was organized in three main zones. The first was in the SW corner and corresponded to a probable external pathway with a floor constituted by a relatively thick layer of small stones (5626), not unlike the small street attested at Coppa Nevigata, although wider. This area was interrupted to the east by a crescent-shaped ditch whose function is still uncertain (features 1987, 1989).

The second zone is central and features numerous signs of activity such as a concentration of clay platforms of different sizes (two large 1991, 5612 and one small 1999, probably all cooking facilities), remains of carbonized seeds and deposits of burnt organic material (5618, 2024). Very few post holes (only 5 overall) have been identified in the zone, and of considerably smaller diameter of

those of Area IX, suggesting that probably the area was not covered or, at least, not entirely. In the last zone, corresponding to the long trench to the east, use-levels have been cut by later structures damaging much of the deposits. This zone did not present any post holes and the only structure is a large clay platform placed at its eastern extremity. A debris pit, whose fill contained a large amount of material, seems to be associated with the facility. This fill (3992) also produced one of the largest concentrations of Aegean-type materials in this phase, with 27 families of sherds (13 closed shapes, of which eight are of large size and 12 open shapes, two of which of large size, 2 not identifiable). Aegean-type materials are also quite abundant in the central zone, and particularly in the older fill deposit and in the use-level related to the area of the cooking facilities. These two contexts (5605, 5608) had 29 families of sherds (10 open shapes, three of large size, 13 closed shapes, three of large size, 5 non identifiable).

Moving to the northern trench of Area X (Fig. 6.1.16), the amount of Aegean-type material is on the same order of magnitude, with 63 families of sherds overall.

The large building of Area IX (Phase 6 and 7)

In Area IX, during the early Final Bronze Age (Phase 6), the count of families of sherds of Aegean-type material is 123, marking a substantial decrease from the preceding Phase 5. From this total it is necessary to subtract 6 earlier vessels dating from LH IIIA to LH IIIB2-C Early. According to the calculation proposed in the previous chapter, Aegean-type material represents overall 1.8 % of the total assemblage. The 16 diagnostic vessels include both open and closed shapes from the repertoire in use at Roca during the Recent Bronze Age with few changes (Table 6.1.3). Along with pottery dating to LH IIIC Middle is now attested also later material, such as a LH IIIC Late stirrup jar (id 11348; Figure 6.3.14a).

The most important (as well as apparent) feature of this phase in Area IX are structural remains which indicate a considerable innovation in the very use of

the space within this part of the settlement. The area is now occupied by evenly spaced rows of postholes with very large diameters (averaging about 1 m; Figure 6.1.17). Traces of a crushed limestone pavement have been identified here and there albeit the majority of the postholes were recognised in the lower occupational layer (11331). To the west and south of the postholes, a thick stony layer created a sort of perimetral path. This probably constituted an external pavement, as confirmed also by the distribution of finds, which is much lower here than within the structure. Excluding the postholes and the stony layer, the only other structural remains uncovered in the area is a small clay platform, only partially explored (Figure 6.1.17).

Despite claims to the contrary (Pagliara et al. 2008: 245), at present it is not possible to assess with certainty whether the remains belonging to Phase 6 represent a building with proportions similar to those attested in the subsequent Phase 7. The orientation is very similar, as is its construction technique, as well as the spacing between the postholes. What can be reasonably surmised is the existence of a building similar to the later one, although an assessment of its full size and extent is not possible. This is primarily due to the monumental nature of the evidence belonging to the subsequent Final Bronze Age 2 phase, which has limited our ability to read satisfactorily the plan of the earlier building.

During Phase 7 the whole Area IX (including also a portion of the contiguous Area II) was occupied by the remains of an unprecedentedly large structure, which included also two hoards (one of which had also gold items; see below and Maggiulli 2009; Malorgio & Maggiulli 2011), and the overwhelming majority of Aegean-type pottery recovered in this phase (107 of the 111 families of sherds for this phase, see Figure 6.1.18, Table 6.1.4). The structure was destroyed during an extensive burnt destruction occurring around the middle of the 11th century BC, documented in most of the areas with traces of Final Bronze Age occupation. This sealed a vast portion of the settlement under an extensive blanket of burnt debris. As for the Area IX structure, the overall extent of the built area measures 40 x 15 m, with an approximate north-south orientation (Figure 6.1.18). This was surrounded by a stony layer very much like that of Phase 6, about 30-40

cm higher than the pavement of the structure (Figure 6.1.19). Abundant charcoal remains indicate that much of the building was realized in wood. The structure was characterised by evenly spaced rows of postholes (similar to those recorded in the previous Phase 6) whose diameter was very large (again about 1 metre), and which often preserved part of the original post, carbonized and wedged with stones. Diameter of postholes, however, cannot be considered directly proportional to the elevation they had to support and, when preserved, the posts were only 30-35 cm thick on average.

The alignment of posts is not everywhere perfect and much irregularity can be noticed. While in the southern half these form a perfectly regular grid (Figure 6.1.19), in the centre spacing is much less coherent, becoming again more consistent to the north. Divisions within the structure were undoubtedly present, although they were often very badly preserved and therefore cannot be fully reconstructed (Malorgio & Maggiulli 2011: 129). The pavement of the building was made up of levelled soil and did not required the use of a layer of crushed limestone, as was the case in the previous periods. Such material was instead adopted in a couple of cases to construct a low bank (i.e. about 50 cm high) which may have been used as a bench, as it seems to be suggested also by its position in relation to a hearth (see Figure 6.1.20, NE corner, and Malorgio & Maggiulli 2011: 129; Pagliara et al. 2008). The fact that archaeological material was often incorporated in a layer of abundant charcoal remains together with the lack of a proper pavement, may suggest the use of raised wooden planks, at least at some points in the structure (i.e. perhaps where there were not hearths or where the unevenness of the basal soil required it).

Since no apparent boundaries in the distribution of charcoals or finds have been identified from north to south, the structure has been interpreted by the excavators as a single building, though alternative readings are also possible. It must be stressed, however, that only an in-depth analysis of the plan of the Area IX building (a task which is currently ongoing) will allow to determine the validity of any reconstruction. The situation is even more complicated by the probable existence of different subphases within Phase 7, which are implied by a number of

postholes which are cut through disused hearths and other structural elements (i.e. in the south east area and to the north-east). If the 'one building hypothesis' proves to be valid, its size would be undoubtedly unparalleled in the region. Whether or not this was the case, the undeniable aspect of the building of Area IX is the modular use of space, as attested by posthole distances, which underlies the ability to plan construction activities over such a vast portion of the settlement.

Given the size of this building, the excavation has been a relatively lengthy procedure and, for convenience, the structure has been subdivided into five different sectors (Figure 6.1.20). One of these, the SE sector, which has also revealed a child burial in a pottery jar,¹³⁵ has been recently the object of an in-depth analysis by Malorgio and Magiulli (2011). A large set of vessels has been uncovered here, divided in two main clusters, one close to a clay platform and another in the proximity of a large wheelmade pithos (see below). According to this study, the majority of these numerous Impasto vessels (58, 74 counting those for which the shape has not been defined) were standard domestic shapes with a functional focus mostly on cooking, pouring and, more broadly, food preparation (see Figure 6.4.1 and Malorgio & Magiulli 2011: 152). The only class of items not in-line with such a function are Impasto tripod trays, called by the excavators *tavole per offerte* (offering tables), and compared to similar items from Minoan Crete (Guglielmino 2008: 31 with bibliography). For these objects, however, as we shall see, other comparisons, not directly connected with cult practices, are also possible (see below).

Sector SE of the building revealed a certain amount of Aegean-type material (18 vessels, among which are 4 deep bowls and an amphora/hydria), albeit the major concentration was in the sector immediately to the W (i.e. the SW one), which had 34 families of sherds (diagnostics are 2 deep bowls, 1 kylix, and a krater). In general terms, the areas that produced the largest assemblage of this class of material are those where the post alignment is better preserved in the south (SE plus SW, 52 vessels) and to the north (NE plus NW, overall 43 vessels)

¹³⁵ The burial has been only recently identified and is still being studied (see Figure 6.1.20 no.4 and Malorgio & Magiulli 2011).

with the central sector yielding very little material (12 vessels with only one diagnostic, a jug; see Table 6.1.5). Unfortunately the study of the Impasto pottery is still ongoing and it is not possible to assess whether such a distribution was followed also by this class of material, although this appears likely as the central area is also that more substantially affected by post-depositional disturbances (Figure 6.1.18).

In this brief overview of the finds from Area IX it is compulsory to bear in mind that at this time local production included also pithoi (represented by 5 examples) and, more importantly, Southern Italian Protogeometric (SIP) pottery (see below). As recognized by the excavators (Malorgio & Maggiulli 2011; Pagliara & Guglielmino 2005; Ronca 2005), this last class was well attested in all of the occupation and destruction levels of the structure and, therefore, the picture offered by the comparative analysis of Impasto and Aegean-type material is necessarily incomplete.

As for quantities, in Phase 6, Aegean-type material constituted 1.8% of the overall assemblage, marking a decrease from Phase 5 when this material represented almost 2.6%. Unfortunately, for Phase 7 it is not possible to provide an estimate based on the sample of Impasto pottery analysed (see Figure 5.1.17) as the material from this phase has not been processed according to the same methodologies adopted for the previous phases. It is possible, however, to use the number of vessels reported by Malorgio and Maggiulli (2011) in their study to work out a proportion on this basis. The result of such trial would be a staggering 6.7%, which is completely out of scale if compared with the estimations presented in the previous chapter. The reasons for this discrepancy reside not only in the different methods on which they are based (counts of completely restored vessels versus simple sherd counts) but also in the limited extent of the sample analysed (about 72 m² according to a generous estimation vs the 1,241 m² of the area of the Aegean-type pottery). As a partial confirmation of this, it can be remembered that the southern zone of the Phase 7 building yielded a concentration of Aegean-type material.

Aegean-type pottery quantification and post-depositional concerns (Area IX Phase 6 and 7)

Despite these limitations, it is indeed possible that Aegean-type materials are well represented in the Final Bronze Age phases, although this is unlikely to be connected in any way with the interactional patterns of the period. As for the previous phases, and even more so, it is extremely likely that post-depositional movement has had a considerable impact on the record of Aegean-type material from the Final Bronze Age phases.

The indicators of residuality adopted in the previous chapter (i.e. average EVE per vessel and percentage of diagnostics) give a rather ambiguous indication with the percentage of diagnostics actually increasing over time (Figure 6.1.21 a and b). The reasons for this result need to be sought in the peculiar depositional circumstances which characterize the Final Bronze Age phases. The specifics of the Phase 7 building (sudden destruction, lack of a proper pavement, possible floor of wooden planks in some zones) are likely to have substantially limited the mechanical stress on ceramic material, reducing fragmentation and favouring an increase of diagnostics. To this it is compulsory to add the discoloring effect of contact with fire on sherd material, which has severely hindered the possibility to group sherds and to recognize fragments originally deposited in layers belonging to earlier phases, resulting in their possible overestimation.

Finally and more importantly, as has been seen, the buildings of Area IX Phases 6 and 7 entailed the excavation of large postholes and the consequent uplifting to the floor level of a large quantity of material that was originally deposited in the previous phases.¹³⁶ As a confirmation of the impact of the excavation of postholes in the formation of the Aegean-type assemblage of the Final Bronze Age phases, it is possible to use as an indirect index the number vessels of previous phases which had sherds in Phase 6 and 7 deposits. Adding the

¹³⁶ The consideration made by Maggiulli and Malorgio (2011) of the extremely heterogeneous nature of the sediment constituting the occupational layer of the building (11331), provides a further confirmation of this hypothesis.

older vessels to the total for each phase, to estimate the original total, in Phase 5 (a moment itself characterized by significant post-depositional modifications as highlighted in the previous chapter) they constitute almost 13% of the total, in Phase 6 they represent a quarter of the overall assemblage. The subsequent reduction of this proportion recorded for Phase 7 is likely to be due to the effects of fire previously highlighted (Figure 6.1.21 c).

Finally, additional support for the validity of these observations is offered by the fact that, of all the closely datable Aegean-type materials recovered in the structure of Phase 7, only 5 vessels can be stylistically dated to a period comparable to Final Bronze Age (LH IIIC Middle-Late, namely 2 deep bowls [id 10320, 10253], an amphora hydria [id 10024], a cup [id 10005], and a krater [id 10365]).

All this discussion highlights that the decrease of the percentage of Aegean-type material for Phase 6 estimated through sherd count in the previous chapter is likely to be reliable and that this process probably continued (and possibly intensified) during the subsequent Phase 7.

Final Bronze Age 2 in Area X (Phase V)

The same regularity recognised in the use of the space in Area IX Phase 7 can be recognised in Area X Phase V, and from the point of view of structural remains, the two zones of the settlement, albeit distant, present noteworthy similarities. As in Area IX, also the southern trench of Area X in the Final Bronze Age 2 sees the construction of a building employing evenly spaced large postholes (overall 7) even if their alignment is not as tight as those of the former zone (Figure 6.1.22).

The occupation of this trench is organized in two main zones. The western is occupied by a stony road, possibly the continuation of that encountered in Area IX, built using a compacted mixture of soil, small stones and sherds. The path is delimited by two rows of post holes to the east and west. The row to the east

defines also the perimeter of a hut whose use levels contained five clay platforms (one of which is probably an oven) as well as two pithoi in fine fabric.

As for the finds, the amount of Aegean-type material retrieved noticeably decreases, dropping from 125 families of sherds of Phase IV to less than half (Table 6.1.6). Also the assemblage related to the structure of Area X contained a set of SIP pots, among which were also an askos, one urn and one carinated cup. Among the Aegean-type materials was an amphoriskos (nearly complete, dating to LH III C Late; Pagliara & Guglielmino 2005: 310, II 199) plus 12 families of sherds (nine closed shapes three of which of large size, plus one medium small open shape and an uncertain sherd). The road on the other hand, produced only five families of sherds (all closed shapes, four of large size).

As for the previous phases, the structural remains of the northern extension of Area X still await proper study and consequently little can be said about them. This zone produced overall 22 families of Aegean-type sherds (7 medium/small open shapes, 12 closed shapes, six of large size plus 3 non-determinable). Considering the spatial distribution of sherds (Figure 6.1.23), this time this seems to be equally distributed on the surface of the explored area (five families of sherds for each sector excluding sector two which has four families of sherds). The remaining 21 sherds are scattered in the fills of various postholes without any particular concentration.

Comparison of the assemblages of Area IX and Area X

According to the theoretical premises outlined in Chapter 1, it is now possible to attempt an appraisal of the quantitative dimension of Aegean-type material recovered in the two Final Bronze Age phases of Areas IX and X. As done in the previous chapter, density rather than raw quantity will be considered in order to account for the different sizes of the areas explored. These appear very low, and even if it seems to be possible to read a certain predominance of Area X over IX, the

relatively small difference, together with the problem of residuality previously highlighted (likely to have been valid also for Area X Phase V), make any assessment extremely insecure. Keeping this in mind, it is possible to assess that, as far as composition is concerned, both in Area X and in Area IX there seem not to have been substantial differences from the assemblages attested at the end of the Recent Bronze Age. The range of shapes attested is about the same, with a mild preference for deep bowls (but again the non-monochrome poorly preserved ones, are likely to be residual from an earlier period).

Production at Final Bronze Age Roca

The evidence from the Final Bronze Age phases at Roca has produced extensive traces connected with production. Although these are not limited to pottery, involving also other crafts such as metallurgy, ceramic production still represents an extremely important aspect.

As can be seen (Table 6.1.7), the same differences in fabrics of Aegean-type pottery between the two sampled areas (i.e. presence or absence of mica see section 5.1) encountered in the Recent Bronze Age phases, can be recognised again in the Final Bronze Age, reinforcing the impression that much of the record related to this period is actually in secondary deposition. However, despite this, there are evident hints that at least some local production of Aegean-type pottery was still carried out at the site, although probably less popular as indicated by the general decrease in the frequency of this category of material. These hints are offered by a jug, undoubtedly dating to the Final Bronze Age 2 (Figure 6.1.24). This vessel, which has been recovered in an area of the settlement different from those analysed here and which has parallels at the nearby site of Santa Maria di Leuca as well as at Termito in Basilicata, has proved to be locally made (according to analyses by Jones and others, see Guglielmino et al. 2010, no. 33). During the Final Bronze Age, however, local wheel-made pottery at the site is represented primarily by another category of evidence, namely pithoi, whose production commenced

already during the Recent Bronze Age and that are now ubiquitous at Roca.¹³⁷ An Aegean inspiration/derivation has been suggested for these containers (Guglielmino 1999) and, although they are extremely well attested on Crete (Christakis 2005, 2008), in mainland Greece their presence peaks in a relatively late period, grossly corresponding to the Italian Final Bronze Age (see Cullen & Keller 1990; Rückl & Lis 2011 with previous bibliography).

As mentioned before (section 3.1), pithoi are large ovoid storage jars with three short twisted handles attached to the rim (probably functional only for the use of ropes to fix on the lid), a hollowed rim (again aimed at the positioning of the lid), and decorated with bands of parallel horizontal grooves (Figure 6.1.25). Pithoi are regularly produced with fine clays through a combination of wheel throwing and coil forming and fired at high temperatures (Levi 1999: 94, 219 note 2). The forming technique of such vessels has been studied in detail by Levi (1990) and Guglielmino (1999) who recognised two main moments, one which entailed the wheel throwing of large portions of the vessel whose upper and lower edges were modelled through a system of mortises and tenons. These were then partially dried and attached to the rest of the vessel through clay coils (Figure 6.1.25). Such a forming technique was substantially different from that of pithoi from Broglio (see also Peroni 1984: 161), where the segments of the vessel were coil-made. After forming, the vessels were dried and subsequently fired in large kilns (of which we unfortunately do not possess any remains). The technique is still adopted nowadays by traditional potters on Siphnos as well as elsewhere in Greece (Giannopoulou 2010: 70-72).¹³⁸ Of extreme interest is the graffiti 'X' mark recorded on one of the examples from Roca, that has been tentatively connected by Guglielmino (1999: 484) to a possible indication of capacity, although the relatively uniform size of these vessels at the site seems to indicate that this might not have been the case (Figure 6.1.26). Rather, the fact that the sign corresponds to

¹³⁷ An individual fragment of wheel-made pithos has been found in Area IX in the Impasto subsample related to Phase 5, while more conspicuous (63 fragments) is the sherd count for the early Final Bronze Age phase (Phase 6).

¹³⁸ Guglielmino (1999: 476) suggest parallels with Cretan and Sicilian potters. However, according to the recent (and comprehensive) ethnographic survey by Giannopoulou (2010: 71), the standard technique for Cretan *pitharia* (the modern equivalent of prehistoric and ancient pithoi) involves the direct throwing of each segment of the pithos directly on the vessel rather than the forming of separated bands.

one of the handles might instead suggest that it was scored for indicating the attachment of this element.

In the same period, at Roca (as well as in limited number of other locales), along with pithoi, is recorded another shape that is produced with the same fine clays and the same technological characteristics. These are basins (Figure 6.1.27), which are actually half-pithoi missing the upper body. Albeit similar as far as technology is concerned, basins are completely different from a functional point of view, as their wide rim-diameter allows the manipulation of both liquid and solid substances, making them at the same time less suitable for long-term storage of liquids. Another feature of such vessels is that, contrary to pithoi, which although regularly having some form of slip are actually undecorated, basins can be painted with simple geometric motifs reminiscent of those attested on another class of pottery representing the last innovation of pottery production at Roca. This is SIP pottery (Figure 6.1.28), a ceramic class that had a vast distribution all over southern and Adriatic central Italy as well as in Sicily and at Lipari. Since this material is particularly well attested in Apulia and it has been used as a basis to explore interaction at the level of the small network, we shall return to the topic below.

Pottery is not the only field where it is possible to document substantial traces of production during the Final Bronze Age. In this phase, as it has been possible to highlight in the overview just offered, it is possible to note the appearance and dramatic increase of elements pointing at the vitality of another craft, namely metallurgy. This is all the more surprising if we consider that Apulia, as a region, is completely devoid of any copper sources, and all the metal recovered here came from somewhere else. Particularly remarkable is the fact, noticed by Guglielmino (2006a), that the southern half of the region, i.e. the Salento peninsula, produced the largest assemblage of bronze smithing hammers recovered in peninsular Italy. Traces of metallurgy at Roca are constituted by the metallurgical work-area of Area XII previously mentioned (see above and Figure 6.1.14), as well as by the two hoards recovered in Area IX.

In Area XII, the evidence connected with metallurgy is represented by a pottery tuyère and a fairly large number of stone moulds, recovered on a floor of crushed limestone and in close spatial association (Figure 6.1.29-30). The moulds allowed the production of a variety of bronze implements, ranging from tools (i.e. axes, knives and a hammer) to weapons (spearhead and arrowheads; see Guglielmino 2006a). The exceptionality of this context resides in the quantity of moulds (8 examples with multiple objects carved on their surfaces) which are normally recovered isolated in southern Italian settlements of the Bronze Age (see section 4.1) while in this case they seem to define a specialized area within the larger settlement. Other moulds and fragments have been found in other areas of the settlement for a total of 14, 12 of local limestone, one of schist and one of basalt (this last one recovered close to the hoard of the gold, was produced by recycling a Neolithic axe, see Figure 6.1.31 and Guglielmino & Pagliara 2004: 576, fig. 266).

Regarding the hoards, they have been found in two zones of Area IX very distant from one another in the north-western and south-eastern sectors of the structure (see Figure 6.1.20. no. 1-2). They are both dated to a mature stage of the Final Bronze Age, though they are very different in composition. The so called 'hoard of the gold' was recovered in the north-west of the structure of Area IX in a disused posthole (Figure 6.1.32). A number of bronze objects was identified outside of the fill of the hole (most notably a double axe of a functional type and a spearhead Figure 6.1.34) but in immediate spatial relation, suggesting they possibly belonged to the same set.¹³⁹ The material composing the hoard was very heterogeneous including ivory, rock crystal, gold and a variety of bronze objects with evident traces of use as well as, occasionally, of repair (Magiulli 2009: 314). In this last category, ornaments are better represented but weapons and tools (among which is a small bronze smithing hammer), both entire specimens and fragments, are well documented. The most important objects recovered in this context are undoubtedly the two disks in gold foil, some 10 cm in diameter and finely decorated with a typically Protovillanovan embossed decoration including a central cruciform motif and a festoon solar boat motif (see Figure 6.1.36). The

¹³⁹ They might have been in a container of perishable material only partially fitting the disused posthole in which the proper hoard was found.

better preserved example had traces of the hemispherical bronze lamina on which it was probably originally mounted (Maggiulli [2009: 319], suggests as a parallel the famous Trundholm chariot from Denmark). Another two identical disks have been recovered in the deposits immediately outside the posthole containing the hoard. All of these items had been carefully folded, an expedient which might have been aimed at preventing their accidental breakage (and the consequent loss of fragments of the precious material), while they were being moved.

The other hoard (Figure 6.1.37; nicknamed 'hoard of the Bronzes'), recovered in the opposite corner of Area IX (Figure 6.1.20 no. 2), was rather more bulky (16 kg of metal vs the 2.5 kg of the hoard of the gold). As far as composition is concerned, axes are the most well attested type (with about 70 fragments), followed by sickles, while, as far as weight is concerned, ingots and ingot fragments are much more abundant, making up 70% of the overall weight (a feature which is not attested in other hoards in the area, where ingots are normally absent). These includes primarily bun (plano-convex) ingots, but other typologies are also recorded. Amid a number of non-determinable small fragments, were also some casting residues and many items retained casting burrs. Traces of iron oxide (mostly constituted by reddish stains on the bronze items) are evident on many objects, suggesting that objects in iron were also probably present (Maggiulli 2009: 324-327, but *contra* see Giardino 2005: 498). The overwhelming majority of the tools recorded in this hoard are fragmentary and, in any case, not or poorly functional, with little to no wear traces (Maggiulli 2009: 331). Altogether various characteristics of the components suggest the metal was hoarded for the sake of its value, perhaps by a bronzesmith. As for the typological influences identified in the material, both hoards have shown clear influences of northern Italian and Balkan types (Maggiulli 2009). These are recognisable primarily in the sickles, socketed axes and ingots which, although having also some parallels in the region, present some typological specificities which connect them with the horizon of the hoards from Friuli (above all Castions di Strada), as well as with the Balkan area (see below and Borgna 2001, 2009; Gori 2006; Maggiulli 2009: 326-327).

Given this evidence, it is interesting to note the limited overlap between the metal types of the two hoards and those attested in the stone moulds recovered in Area XII. Apart from the hammer (Guglielmino 2006a: 39-41; Maggiulli 2009 no.1.28; see also Bietti Sestieri 2008), the knife (Bietti Sestieri 2008; Guglielmino 2006a: 41-43; Maggiulli 2009 no. 1.34), and the 2 scorrano axes (from a total of more than 70 axes and axe fragments, see Guglielmino 2006a: 43-44; Maggiulli 2009 no. 1.16-17), no other items are attested in both contexts, i.e. there are no Manduria axes, northern Italian ones, sickles or ingots among the moulds. The first two of these three exceptions are also, together with the double axe previously mentioned (but see below), the items more clearly of Aegean inspiration in the whole repertoire of bronzes dating to this phase of the Bronze Age at Roca while, as noted by Guglielmino (2006a, note 79), a spearhead similar to that of the Roca mould is recorded in Achaea.

A further confirmation that most of the items of northern type are probably imports is offered by a preliminary report on lead isotope and compositional analyses of the material from the two hoards as well as from other deposits from Area IX (Jung et al. 2011). This has revealed that the material was largely produced with metal coming from Adriatic northern Italy, most notably from the Trentino region.

Context of interaction beyond Roca

A limited number of sites dating to the Final Bronze Age have produced Aegean-type material dating to a comparable timeframe and although they do not constitute either the only or the most important element of interaction in Apulia, they provide undoubtedly a good starting point. It is to be noted, however, that many of the sites with material generically datable to LH IIIC do have a Final Bronze Age occupation. In the absence of precise contextual data, it is therefore necessary to bear in mind that the material from at least some of these sites might date to such an horizon, even if some details (i.e. the general scarcity of solidly painted vessels) seems to indicate this was not the case.

Some information is available for Porto Perone - Satyrion, where Aegean-type material is attested both on the 'acropolis' (Satyrion) and in the lower village (Porto Perone, see Lo Porto 1963: 341-343; 1964a: 263-264). The material from Satyrion was not associated with specific structures (found loose in *Strato d*), while the copious assemblage from Porto Perone was in relation with simple huts (Lo Porto 1963: 285, fig. 5), which showed remarkable structural continuity (in shape and size) with those of earlier periods.

Together with Roca, the other main node of interaction with the Aegean is the nearby site of Punta Meliso at Santa Maria di Leuca (Figure 6.1.9; see Cremonesi 1978; Ingravallo 1995; Orlando 1997b). Here, the context of recovery seems to indicate a situation which is a mixture between the traditional trend recorded on the Adriatic since the Middle Bronze Age, where modest quantities of material were scattered in huts, and what has been recognised for Recent and Final Bronze Age Roca, with a good attestation of shapes connected with wine consumption (see below).

As has been already mentioned, a number of semi-hypogeal structures of limited dimensions (with one larger, i.e. Hut 3) have been excavated, along with the remains of a silo. A relatively large assemblage of Aegean-type material, totalling of about 300 sherds, has been recovered in association with these structures (Benzi & Graziadio 1996). The majority of this pottery has been identified in the larger structure, Hut 3, while only minor concentrations were in the silo and no finds in the other huts (see Figure 6.1.9). As at Final Bronze Age Roca, the material presented much postdepositional movement, with many joins between different levels, but the occupation of most structures was confined only to the Final Bronze Age (Benzi & Graziadio 1996).

As far as contextual detail is concerned, Punta Meliso represents an exception. Not much, for instance, can be said about the few sherds of late material recovered at Madonna del Petto during the 1960s and 1970s. Indeed, while the existence of structural remains is undoubted (i.e. postholes and remains of walls),

no clear plan of a building has been revealed and the material is only generically associated with the general sequence (Muntoni 1995: 179-183, 189).

Even less is known for Scoglio del Tonno, another site with Aegean-type material dating to these later phases, although in his report, Quagliati (1900) mentions the existence of remains of huts in the upper layer of its sketchy sequence (perhaps corresponding to the final moment of the Bronze Age as attested by the association with 'yellowish geometric pottery' i.e. possibly SIP pottery, see Quagliati 1900: 416).

6.2 The Small Scale Network during the Final Bronze Age

Southern Italian Protogeometric (SIP) Pottery

As highlighted above, the frequency and ubiquity of Aegean-type material in settlements is probably substantially diminished if compared with the previous Subapennine period. This is probably related to the fact that another class of pottery has now taken up the Aegean-type material's role as fine products in Late Bronze Age Apulian contexts, namely SIP pottery (Figure 6.2.1). This new class starts during the Final Bronze Age¹⁴⁰ and will continue to be produced also during the Early Iron Age. To some extent this class integrated traditional Impasto pottery, which at this time has moved to the so-called Protovillanovan phase, a cultural horizon characterized by an even greater decrease of variability in terms of stylistic elements than the previous Subapennine phase. Indeed, in this phase most of the typical Subapennine projections disappear, leaving room only for grooved decoration, which we saw appearing in a mature moment of the Recent Bronze Age (Figure 6.2.2).

SIP is a class of fine pottery characterised by a dark matt-painted decoration (for this reason it is also known as Matt-Painted pottery, i.e. Yntema

¹⁴⁰ Such a date is based on the presence of this material in the strata belonging to the Ausonio II at Lipari (Yntema 1990: 23).

1990).¹⁴¹ The fabric is normally light brown in colour but the exterior usually has a cream color that endows vessels with their distinctive light aspect. Similarly to pithoi, also the firing of SIP occurred probably around 900°C (Ronca 2005: 32; Yntema 1990: 19), requiring know-how close to that necessary for the production of Aegean-type pottery. It has been surmised that the relationship between SIP and pithoi is extremely close and that the two classes were produced in the same context of production (Levi 1999: 260-261). The connection is emphasized by the existence of painted basins, which have a more restricted distribution (essentially limited to Salento), and used the same forming technique as pithoi, even if some expedients (the system of mortises and tenons previously described see 6.1 and Figure 6.1.25) is not present. Apart from basins, the rest of the SIP appears to have been less uniform as far as forming technique is concerned. Yntema (1990:19) excludes the use of the wheel, asserting that what has been taken for wheel marks were more likely signs of burnishing of the vessel. In recent years, however, the evidence for the use of the potter's wheel on this class of material has increased and to the examples from Lipari and Termito it is possible to add examples from Madonna del Petto (Laviano et al. 1995) and Coppa Nevigata (Boccuccia et al. 1998), while at Roca wheel-traces are limited to basins (see above and Ronca 2005: 39). In general terms, it is possible to consider the potter's wheel as part of the technological background occasionally employed by the makers of SIP, although its use was far from being regular. After all (as remarked by Ronca 2005: 34), the use of the slow wheel as a device for turning easily the vessel was probably indispensable for the forming of some of the bigger vessels produced in SIP, without entailing with this that the vessels were wheel-thrown altogether. The large size of these vessels, together with their decorative elaboration, has suggested in the past that SIP constituted a prestige material (Bettelli & Levi 2003; Ronca 2005: 44-46). Even if, as noted by Yntema (1990), such a hypothesis is grounded on ephemeral contextual evidence, firing large fine vessels at high temperatures demanded abundant fuel and decorating them is a further addition

¹⁴¹ Yntema (1990:19) suggests a manganese based paint but this is not based on any analysis and contrasts with the recent results offered by the analysis of the paint of local Aegean-type sherds at Roca where the paint proved to be regularly iron based (see Guglielmino et al. 2010: 266).

to the labour requirements for these vessels.¹⁴² Technological features aside, the high value of this class of material can be inferred also by its relative rarity (i.e. Muntoni 2002 suggests a frequency of about 5% for Madonna del Petto, not dissimilar to that recorded at Roca for Aegean-type pottery), as well as by the frequent presence of mended vessels (Figure 6.2.3 which are rare in Aegean-type material, i.e. at Roca).

As for distribution, the adjective 'Southern Italian' attached to SIP has been proposed by Yntema (1990: 19) as a replacement of the old 'Iapygian' with which this class had been characterized since Taylour's times (1958: 120, but other more 'regionally specific' names have also been used i.e. 'Daunian', referring only to the upper part of Apulia see De Juliis 1977; Herring 1998: 35-36 with bibliography), in the light of the growing number of findspots recovered over a vast portion of southern Italy ranging from Abruzzo to Lipari and southeastern Sicily (Figure 6.2.4; Di Fraia 1995; Ronca 2005; Yntema 1990). However, despite its distribution reaching definitely beyond Apulia, the concentration of finds here, as well as the sparse attestation of this class elsewhere, clearly indicates that this region, perhaps together with the Ionian part of Basilicata and to a minor extent Calabria, constituted the main 'core area' of SIP. Albeit as noted by Yntema (1990), the distribution of SIP overlaps to a considerable extent with that of LH IIIC pottery (see below and Figure 6.2.4), it is also necessary to note that many regions which have findspots of late Aegean-type pottery have not yielded SIP finds. This is the case of Tyrrhenian continental Italy (above all Campania and Latium), as well as of Sardinia where local production of Aegean-type pottery was also present during LH IIIC (Jones & Levi 2004). Additionally, with the possible exclusion of Lipari (a site that because of its nodal nature, always needs to be considered apart from the rest of the surrounding region), the material recovered in Sicily is only superficially comparable to the bulk of SIP production and similarities are limited to a few decorative motifs. It is sufficient to remember the pedestalled basin from

¹⁴² Of different opinion is Herring (1998: 123-124) who, however, takes into consideration neither the prevalence of large necked vessels during the Final Bronze Age phases of the Matt-Painted tradition, nor the similarities with other specialised time-consuming products such as wheel-made pithoi. He further emphasizes the effects of the decrease of interaction with the Aegean world, fundamentally neglecting the traces of non-pottery interaction in southern Italy during the same period (Herring 1998: 125).

Metapiccola near Catania (Rizza 1962) which, if we exclude the zig-zag decoration, is identical to analogous Thapsos-Pantalica vessels (Figure 6.2.4). As for 'standard' SIP pottery, shapewise, the main directive from which features are borrowed is Impasto Protovillanovan pottery (Herring 1998: 41-42). Already Yntema (1990: 26) noted the analogy between the two products, suggesting also a derivation from Protovillanovan grooved decoration for some of the most simple motifs attested on SIP.

Despite this, an Aegean component is undeniably present in the repertoire of SIP. An in-depth comparison of the decorative repertoire and syntax of SIP and late Mycenaean material is beyond the scope of this study, but a few remarks can be made. Aegean influence, for instance, can be recognised in cross hatched triangles (Table 6.2.1 no. 4), comparing well with motifs (FM 61A) typical of LH III C Middle-Late as well as of Protogeometric of some areas of the 'Aegean world' broadly intended, such as the Ionian islands and Achaea (Mountjoy 1999: 425-441; Souyoudzoglou-Haywood 1999), while other motifs such as the so-called *tremolo* (i.e. vertical undulating lines) are reminiscent of some versions of pannelled patterns (FM 75), more generically datable between LH IIIB and C (Table 6.2.1 no. 5). Only at Roca is attested a special motif (Ronca 2005, Pl. 67, 71) which is similar to a version of the late Mycenaean motif FM 43 (concentric semicircles with chevron fill; e.g. Mountjoy 1999: 432 no. 109), again distributed primarily in western Greece (see Figure 6.2.6 a and b). The same is true for other motifs typical of Achaea (and particularly of its western part) such as the elaborated rosette (Figure 6.2.6 e and f; see Moschos 2009a: 288 fig. 40b; Ronca 2005, Pl. 49), while the net and the fish-bone pattern (Figure 6.2.6 c and d, g and h; see Moschos 2009a: 288 fig. 40d, e; Ronca 2005; Pl. 18, 21) have in Apulia a slightly wider diffusion, but are essentially limited to Salento (also at Torre Castelluccia i.e. Figure 6.3.1 no.2).

Notwithstanding these similarities, individuality and absence of standardization is a feature typical of SIP decoration. Indeed, while some of the most simple motifs are widely attested across Apulia as well as elsewhere, local idiosyncrasis are always present. These are expressed occasionally also through

human and animal representations, attested only at a handful of sites (Figure 6.2.7). Although such motifs may be reminiscent of the late pictorial products of the Mycenaean world (Karageorghis 2001; Karageorghis & Vermeule 1982), their position in the general syntax of the vessels (i.e. interspersed with other geometric motifs or in metopal compositions, a feature attested also in local Aegean-type pottery at Termitito [De Siena 1983]), shows considerable non-Aegean character. The case of Roca is interesting as the site not only presents isolated human and animal figures (Figure 6.2.7 no. 3-4), but also motifs inspired by vegetal elements as well as more complex 'narrative' motifs such as a possible 'hunting scene' (see Figure 6.2.7 no. 2 and Ronca 2005: 127-131).

The SIP network

Given its preferential distribution in Apulia as well as the many ties with traditional Impasto production, the use of SIP as a basis for the construction of the Small Scale Network for the Final Bronze Age appears to some extent an obvious one. As with previous periods, only stylistic features have been taken into consideration (in this case painted decoration). Furthermore, while the chronological span of SIP goes well into the Iron Age, given the focus here, the network analysis includes only contexts with material dating to the Final Bronze Age.¹⁴³ The general procedures followed are the same described in Chapter 4. In the specific case of SIP, it is necessary to consider the hybrid nature of this style as well as its roots in both Protovillanovan and Aegean-type pottery (see above). In particular, it could be argued that similarities and shared motifs within SIP do not reflect horizontal communication but rather independent parallel development from common sources. As for Aegean derivation, while this is undoubtedly possible, observing the rarity of LH IIIC Late material in Apulia (i.e. the area where most of the parallels with SIP can be found), it appears reasonable to assert that if pre-existing Aegean influences played a role in the distribution of the SIP decorative repertoire, this was probably quite small. Different is the case of

¹⁴³ For this, it has been necessary to exclude a number of finds with an uncertain chronological position. This is the case for the material from Torre Guaceto (Guerreschi 1966, fig. 3 no. 12, fig.4 no 10), since the site continues also during the Early Iron Age and the context of the finds is not clear.

Protovillanovan material which is, naturally enough, plentiful in the region during the Final Bronze Age. First, it can be noted that within the larger set of Final Bronze Age Impasto pottery, complex decorations (such as those which may have credibly provided a model for SIP) are extremely rare. Second, these Protovillanovan links do not reduce the potential of the network analysis as a basis for the study of regional small-scale networks; to the contrary, they increase it. Most notably, they indicate that the communication expressed by the network is a 'layered' phenomenon in which the circulation of some motifs can be attributed to patterns of interconnection related to other classes of material (i.e. Impasto pottery).

This brings us back to the differences between the role played in Apulian societies by SIP and Impasto. It is possible to find confirmation of this difference by looking at the network (Figure 6.2.8; data in Appendix 3, Table 3; measures in Table 6.2.1) and noting the small number of nodes. This includes only 17 sites, while that of the previous period was composed by 28. Naturally enough, some of this difference is the result of a publication bias. However, even if we include in the count also sites for which the attestation of SIP is only mentioned, the proportion of sites where the material is attested is about 35%, not that far from 26.6% attested for Aegean-type material during Subapennine times. Considering that Aegean-type material is present only in 5 Final Bronze Age sites (corresponding to about 8% of the total), it can be safely asserted that, to a certain extent, SIP had indeed replaced Aegean-type material as a class, also at a regional scale. Furthermore, this highlights another consideration which is even more important if we are to draw social inferences from the patterns recognized in the network. Although SIP is not as rare as Aegean-type pottery, it is also not as universal as Impasto, which represents the basic form of pottery also in Protovillanovan contexts. It is therefore necessary to bear in mind that the interpretation of the network will reveal patterns which are, at least at an inter-site level, quite 'selective' as far as 'actors' involved are concerned (i.e. only few communities produced/had access to these materials). Whether this is valid also at an intra-site level (i.e. for households instead of communities), the contextual evidence is too scant to tell, even if the argument in the previous section relating to the perceived

social value of SIP (see above) provides a tentative support for this. Another observation in relation to the general layout of the network, is its extremely high average level of connectedness. This is suggested by the measure introduced in the previous chapter, i.e. Average Clustering Coefficient and Average Path Length (see Table 6.2.2 and section 5.2). However, another measure, namely the Average Weighted Degree (see section 4.2), provides a clearer picture of the trend. At 36.11 marks a further increase from the already high values recorded during Subapennine (see Figure 6.2.9). In plain words this means that, as an average, each SIP motif was attested 36 times.

In this general framework it is not surprising to note that the most central site of the network is Roca (no. 135, with a score of 72), closely followed by another main node in the north, namely Salapia (no. 140), not far from Coppa Nevigata and which has probably taken up the role of this last site as main node at the interface between the Gargano and the Tavoliere. Unfortunately not much is known about the early phases of Salapia that will continue to be occupied also in the Iron Age and flourishing in Roman times, when it will become a major player in the history of the area (Lippolis & Giammatteo 2008).¹⁴⁴ It is important to consider, however, that at Coppa Nevigata the deposits relating to the Final Bronze Age have been severely damaged and that, probably, its diminished role in the network is partially due to these circumstances (Recchia 2009: 224).

Last but not least, as in Apennine times and unlike what has been observed in the previous Subapennine phase, there seems not to be a substantial overlap between sites with Aegean-type material and high centrality (i.e. high Weighted Degree in Table 6.2.1) in the small scale network. Indeed, they seem to possess about the same Average Weighted Degree (see Table 6.2.4). This situation was to some extent expected considering the general trend described for the previous phases, documenting a generalised decrease in the intensity of interaction between the Aegean world and the communities of the southern Adriatic.

¹⁴⁴ A semi-underground structure dating to the Middle Bronze Age has been identified in the 1990s (Bettelli 2002: 21).

6.3 The Wider Mediterranean Context during the Final Bronze Age

Northern and Balkan connections

Many of the northern connections presented in the previous chapter continue also during the Final Bronze Age (see section 5.3). The pattern of recovery of Aegean-type material in the Grandi Valli Veronesi (see section 5.3), attested during the Recent Bronze Age is now epitomised by the important evidence from Frattesina.

This large site located close to the outfall of the Po river (its current position is probably more inland than during the Bronze Age), emerged as a full-fledged central-place at the end of a long process starting during the Recent Bronze Age (Figura 6.3.1; see Balista & De Guio 1997; De Guio et al. 2009; Leonardi 2009). The settlement, which during its maximum reached 20 ha, was inhabited until the Early Iron Age. The occupation was organized in relatively small structures, although they become larger in the Early Iron Age (Bietti Sestieri 2008; Bietti Sestieri 2010: 188-189). At Frattesina the recovery of a limited assemblage of Aegean-type material, generically datable to LH IIIC, was accompanied by the identification of unambiguous evidence related to the working of exotica such as amber (Bellintani 2010; Negroni-Catacchio 1984, attested also at the nearby site of Grignano Polesine, De Guio et al. 2009), glass (Bellintani & Stefan 2009; Towle et al. 2001) and ivory (Bietti Sestieri & De Grossi-Mazzorin 2005). As suggested by Peroni (1996: 385-386), the spatial distribution of these traces, rather than suggesting the segregation of different crafts, seems to indicate that different activities were carried out in the same small buildings (arguably representing also a dwelling, see Figure 6.3.2).

Metallurgy is one of the main spheres of production at Frattesina, being attested by a hoard as well as by other finds (Bellintani & Peretto 1972). As

suggested by Pearce (2000, 2007: 107), it is possible that the metal supply for the site came both from Etruria and from the Alpine area to the north-east, even if this latter direction is perhaps more consistently substantiated by the recovery of finds such as socketed shovels (Bellintani & Stefan 2008), as well as the connection of the area around Frattesina with the culture of Luco/Lughen (Leonardi 2009), related to some of the most important productive centres of Trentino (e.g. Acqua Fredda, where over 800 kg of copper slags have been recovered; see Cierny et al. 2004; Pearce 2000, 2007). The southern 'terminal' of north-south linkages related to metallurgy was probably represented by Roca and this is strongly suggested by the analogies between Roca's hoards and those of Trentino (Borgna 2009; Maggiulli 2009).

Apart from these connections, the north-easternmost and the south-easternmost zones of peninsular Italy shared also, during the Final Bronze Age, a general increase of Balkan influences, which in Friuli (north-east Italy) involved primarily metal production (Borgna 2009: 292).

In Apulia, the re-start of the connection with the Balkans is one of the main aspects of the Final Bronze Age. The term re-start is a little inappropriate as, at least as far as the southern Adriatic is concerned, it can be claimed that, although with little material effects, the relations never entirely ceased. Through the whole Late Bronze Age, ties between Apulia and the Balkans, in various spheres of material production were not particularly consistent but nevertheless existed. They increased gradually in the Final Bronze Age, when they acquired considerable importance. For certain aspects, such as handmade pottery, they indicate, more than direct interaction, the existence of a common background which might be connected with the modes of circulation of stylistic models in handmade production highlighted in the previous chapter (section 5.2), and perhaps, at least partially, associated with the possible existence of shared metal prototypes that functioned as vehicles for the transmission of stylistic information. For typical Subapennine handle shapes, a couple of parallels can be recognized in the repertoire published from the site of Beltojës in northern Albania (Lahi 1988). To the fan shaped projection identified by Cazzella and Moscoloni (Figure 6.3.4 no.

2,4 see Cazzella & Moscoloni 1995: 136; ie. Cassano et al. 1987, fig. 78 no.19), it is possible to add a handle fragment again from Beltojës, dating to the later phase of the Albanian Late Bronze Age, which is indeed reminiscent of the mallet shaped example recovered at Porto Perone (admittedly pretty rare in Apulia, see Figure 6.3.4 nos. 1,2; Appendix 3, Table 2, feature no. 9-10 and Lahi 1988: 86-88 Pl. 1 no. 28, Pl. 3 no. 30; Lo Porto 1963, fig. 20 no. 8).

However, these trans-Adriatic relations are not represented only by narrow typological details and, in order to better understand the background mentioned, it might be useful to broaden the discussion to general trends within the diachronic evolution of handmade pottery productions. Indeed, through the Late Bronze Age, it is possible to recognize the parallel development of a few features that occurred at about the same time both in southern Italy and in Albania. This is the case, for instance, with grooved decoration at the maximum diameter of the vessel,¹⁴⁵ which is typical in both areas of an horizon corresponding approximately to the 12th century BC (Andrea 2006: 19; Damiani 2010: 441 see Figure 6.3.4 no.7). In Albania such elements will eventually become more pronounced, later in the Iron Age, resulting in a ribbed decoration (or *kannelyr* in Albanian; see Figure 6.3.4 no.6 and Pevnick & Agolli 2010, fig. 12). This last element is attested in a couple of examples, again at Porto Perone (Figure 6.3.4 no.5 and Lo Porto 1963: 288-289 fig. 17), as well as at Termito in Basilicata (Bianco & De Siena 1982: 92-93 Pl. 28 no. 6-7; Cazzella & Moscoloni 1995: 136 note 41-42).

Other features in common between Italian and Albanian pottery traditions are attested earlier in one of the two areas, which suggests the possible origin of these stylistic elements. An Italian derivation is probable for divided handles, which are already attested in Apulia (i.e. at Coppa Nevigata; Cazzella & Moscoloni 1995: 136; Cassano et al. 1987: 161, fig. 80 no. 2) in a horizon corresponding to the mature Recent Bronze Age, and in Albania occur in a slightly later horizon (transition between Bronze and Early Iron Ages; i.e. Aliu 2004 :81, 93 fig. 49; Pevnick & Agolli 2010 fig. 12, see Figure 6.3.4 nos. 8-9). The same can also be suggested for large bowls with inward turning rim, which have a long tradition in

¹⁴⁵ The decoration, in the case of the Italian vessels, is located on the carination (see section 5.2).

southern Italy (since the Middle Bronze Age, i.e. Cocchi Genick 1995: 46-60), but are rare in Albania (i.e. at Zagorës and Maliq Andrea 1996: 52 Pl. 11, 1-10, 2006 : 52, Pl. 12 no.1-2; see Figure 6.3.4 nos. 11-12). However, since they were probably domestic vessels, their rarity may be due to the general lack of settlement as opposed to funerary assemblages.

To the contrary, the development of a separated neck in Italian carinated bowls during the Final Bronze Age (i.e. Malorgio & Magiulli 2011, fig.7 V; Orlando 1997b, no. 28; see Figure 6.3.4 nos. 7, 10) might have been influenced in general terms by one-handled globular necked cups in Albania, which changed little through the Bronze Age (Prendi 1982, fig. 38-30, i.e. Lera & Touchais 2002: 641 fig. 19 from Middle Bronze Age, Aliu 2004: 93 fig. 49 top left, from Late Bronze-Early Iron Ages).

Similar (although not really parallel) developments do not involve only unpainted pottery as the eastern side of the Adriatic, from Albania to Macedonia and possibly also Bulgaria, is the locus of a series of Matt-Painted styles some of which can also be directly linked to Middle Helladic Matt-Painted ware in Greece (Figure 6.3.5, 6). Discussing the origin and the development of such products is a task that goes beyond the scope of this overview as much ink has been spent addressing this issue, with arguments often coloured in more or less overtly nationalistic tones (for a useful overview of the problem, see Horejs 2007 with bibliography). It is sufficient here to highlight the existence of this further similarity between the two shores of the Adriatic sea, and note that many of the decorative motifs in common between Matt-Painted products in southern Italy and Mycenaean pottery area also seen on Albanian pottery, with the Protovillanovan element being replaced by different local influences (i.e. for local continuity in the material from Maliq, see Andrea 2006). Again concerning Albanian Matt-Painted pottery, the direct nature of contact is attested not only by a generic technological similarity, but also by the presence of a few probable imports. Imports have been recorded at Otranto (Orlando 2002: 219), and also Roca (Figure 6.3.6 and Orlando 1992: 38-9). These can be recognised by the different fabric as well as because of

stylistic peculiarities (i.e. a typical Devollian decoration on the fragment from Roca).

At both Roca and Otranto is recorded another material whose presence can unquestionably be connected with interaction with the Balkans and most notably with Albania. This is bitumen, also known by ancient authors as *Ilyrica Pix* (Morris 2006), a substance whose sources are normally located in an extremely limited range of areas (normally corresponding to oil fields).¹⁴⁶ Possible ancient sources were located in the south-west of the country, in the area around the small town of Pica, on a tributary of the Vjosa river (Figure 6.3.7a), and this suggestion finds some confirmation also in medieval maps such as the *Tabula Peutingeriana*. Small quantities of bitumen have been recorded incrustated on vessels (a unusual dolium at Otranto [Orlando 2002: 213, 220 fig. 10], a repaired SIP vessel and most of the wheelmade pithoi at Roca [Guglielmino 1999: 483; Ronca 2005: 40], a Subapennine carinated bowl at Torre Santa Sabina [Cinquelpalmi 2010a: 226]) and different Impasto vessels at Coppa Nevigata [Cassano et al. 1987: 162-163, E45, A6]) as well as loose in small lumps (in Area IX Phase 5, therefore dating to the end of Recent Bronze Age, Guglielmino pers. comm.). This material was used to make impermeable the interior of (mostly storage) vessels destined to conserve liquid produce. Bitumen was extremely valued in ancient times and perhaps even the more so during proto-history, with its value being inversely proportional to the level of impermeability of ceramics used. To this extent, an interesting confirmation of the 'awareness' of the importance of this material among populations on the eastern side of the Adriatic is offered by the recovery in the Loeffkënd tumulus, in north-central Albania, of an extremely anomalous grave good, an amphoroid vessel completely filled with bitumen, which accompanied an Early Iron Age burial (see Figure 6.3.7, 6.3.7a and Morris 2006: 100).

Together with the elements listed so far, the principal sphere of trans-Adriatic connections towards the end of the Late Bronze Age was metallurgy. Dating to this period are a series of isolated finds which offer a glimpse in the

¹⁴⁶ While for Albania there is clear evidence of the use of bitumen in proto-historic times (see main text below), this does not apply to the Agrigento region, another area for which the exploitation of such a resource has been claimed in the past (i.e. Castellana 2000: 5, 123, 161).

importance of this element in the relations between the two shores of the Adriatic. A trans-Adriatic identity was postulated long ago for the shaft-hole axes of non-italic type recovered at Reinzano near Taranto (Bietti Sestieri 1969; König 2004: 98-99) in a hoard possibly dated to a mature Final Bronze Age horizon. Since then, the circulation of metal types between the two shores of the Adriatic has proved to be a consistent phenomenon. Analogies have been identified between types attested in hoards recovered in southern Italy (Manduria, Soleto, Copertino, Reinzano) and Croatia (Sitno), Albania (Torovicë and Melgushë), Bosnia-Herzegovina (Debelo Brdo) as well as Montenegro (Spič and Ostrelj), with a specific focus around the region of Shkodër in northern Albania (see Figure 6.3.8 and Bietti Sestieri 1969; Bietti Sestieri & Lo Schiavo 1976; Gori 2006 with bibliography; Korkuti 1985). One of the main forms through which relations were carried out was the exchange of shaft-hole and socketed axes which according to Carancini's (2004) proposal were a premonetary medium destined for exchange, as suggested by the fact they preserved features which made their functional use unlikely (extensive presence of casting burrs or a shaft-hole too small for effective hafting). Similar features are present also in Balkan hoards and, on this basis, Gori (2006: 211) has suggested the existence of similar dynamics.

Balkan influences have been also identified in the analysis of Roca's hoards and can be recognised principally in fibulae (Maggiulli 2009: 315) and, again, in axes (Maggiulli 2009: 318, 327). Finally, a possible Balkan origin has been recently suggested also for the functional double axe recovered in the northwestern sector of the building of Area IX Phase 7 (Figure 6.1.33; Guglielmino & Pagliara 2004: 315, no. II. 217) by Onnis (2008: 265), on the basis of the abundant attestation of its specific type (Buchholz III) in Albanian contexts. Although this possibility is corroborated by the recent recovery of a stone mould for a similar object at Sovjan in southeastern Albania (Lera & Touchais 2002: 641, fig. 20), preliminary results of provenience analyses on Roca's double axe suggest that was produced with copper from Trentino (Jung et al. 2011). Since, as we saw, some Aegean-type bronzes were possibly casted at Roca, perhaps with raw material coming from the north, this might have been the case also for this object. Taken together, these elements suggest that local production of double axes was probably relatively widespread in

the southern Adriatic (on both sides) and that consequently it is not possible to attribute to this item too much cultural significance in relation with the Aegean world (*contra* Guglielmino 2006a; 2008).

Cyprus, the western Mediterranean, and metallurgy

Outside the Adriatic, the principal component of metallurgy in the central and western Mediterranean was undoubtedly the Cypriot which, since the end of the Middle Bronze Age, demonstrated remarkable linkages with both Sicily and Sardinia. This area was largely distinct from the Adriatic-Urnfield networks (but not to Tyrrhenian Italy; see Vagnetti 1974), showing relatively little commonalities with it. Nevertheless, given the importance of the phenomenon, it is essential to briefly address it so as to have a more holistic perspective on interaction in the rest of the Mediterranean in a period comparable to the one just discussed for the Adriatic. Unfortunately, even limiting the discussion to metallurgy, the topic is so vast that it will only be possible to outline here its most general developments (Lo Schiavo 1982, 1983, 1999, 2003; Lo Schiavo et al. 1985; 1985a; 2009; Vagnetti 1968, 1999a; Vagnetti et al. 1989). An attempt at a synthesis has been recently offered with respect to the Sardinian evidence in an article by Lo Schiavo (2008) in which she identifies three main stages in the relations between the island and other areas of the Mediterranean in the sphere of metallurgy. A first corresponds to the early interaction with the Aegean world, starting around LH IIIA (Lo Schiavo 2008: 418-420) and mentioned in Chapter 4 (section 4.3). As suggested there, it is not unlikely that already in such early contacts, a Cypriot presence played a role, perhaps mediated by Sicily, particularly in the light of the evidence from Thapsos (see section 4.3 and Alberti 2005), as well as of Cannatello, a site which has finds of Sardinian-Nuragic pottery (De Miro 1999; Deorsola 1996). It has been noted how pottery imports from Cyprus are well attested in Sicily but rare in Sardinia (see Albanese Procelli 2008: 412, Lo Schiavo et al. 1985: 4-5). To those mentioned in chapter 4 it is possible to add a pithos from Cannatello, which is similar to an import from Sarroch in Sardinia (see Vagnetti 1999a).

However, during palatial times, Cypriot material culture had many features in common with the Aegean world, not the least, local production of dark-on-light pottery. Therefore, it is not impossible that the small assemblages of Aegean-type pottery recovered at various locales in Sardinia (less than 10 sites) is evidence of Cypriot influences as much as of Aegean ones (Vianello 2005: 139-141, 158-159, for specific parallels in Cyprus see Lo Schiavo et al. 1985: 7). In any case, by the Recent Bronze Age, Sardinia had direct linkages at least with some areas of the Aegean, again interestingly, those more involved with Cypriot contacts, as attested by Sardinian and Cypriot material at Kommos (Rutter 1999, 2006).¹⁴⁷

Cypriot influences can be also identified in a number of tools connected with metal working, among which a large number of raising hammers similar to those attested also in Apulia (see section 5.1 and Lo Schiavo & Vagnetti 1985: 22-27). The most tangible piece of evidence of this relationship is provided by the distribution of oxhide ingots (Lo Schiavo et al. 2009; Jones 2007) which have been found in significant numbers in Sardinia and to a minor extent in Sicily (see Figure 6.3.9 and Albanese Procelli 2008; Lo Schiavo 2003, 2008; Lo Schiavo et al. 2009). These ingots with their peculiar quadrangular shape with elongated corners (facilitating their handling), occasionally bore on one face marks in the cypro-minoan script (Figure 6.3.9; see Kassianidou 2003), and represent one of the chief classes of evidence for the Late Bronze Age metals trade in the eastern Mediterranean (Jones 2007). West of Greece, in Italy, only Sardinia and Sicily (including Lipari) have produced evidence for these artefacts. While the sporadic finds in southern France and Corsica (e.g. Domergue & Rico 2002) can be perhaps considered as a by-product of the same maritime routes which reached Sardinia, remote finds are more enigmatic and less easy to explain in the light of our current knowledge of Late Bronze Age metal trade (i.e. the fragments from Oberwilflingen [Primas 2005: 389] in southern Germany and the specimen from Bulgaria [Lichardus et al. 2002]).¹⁴⁸

¹⁴⁷ Lo Schiavo (2008) considers the evidence from Kommos as dating also to LM III A, not taking into consideration that most of it has been re-dated by Rutter to LM III B (1999).

¹⁴⁸ Not much evidential value is offered by the so-called miniature ingots, small objects (possibly pendants) resembling in shape oxhide ingots, recovered at a number of locales in the Balkans (i.e. in Croatia, see Forenbaher 1995). The shape is very simple and the resemblance is very likely to be casual.

It has been suggested on essentially iconographic grounds, i.e. the lack of representations from Egyptian tombs dating after this period (see Bass 1967: 62-67, 164; Jones 2007), that the production of these ingots ceased by the end of the 12th century BC, and therefore all the items recovered in the western Mediterranean should date before the end of this century. However, as noted by Jones (2007: 35 note 142), it is perfectly possible that the circulation of these goods at a later time did not interest Egypt, which would explain the lack of later representations. Some support for this suggestion is offered by the fact that the contexts of recovery in Sardinia are often either poorly dated or quite late (Jones 2007: 426-429).¹⁴⁹ According to a number of analyses, the source of the extremely pure copper in oxhide ingots is almost always Cyprus (Hauptmann et al. 2002; Gale 2011; Gale et al. 1997).¹⁵⁰

Among the material from the Final Bronze Age hoards from Roca recently analysed, was also a small fragment of copper (Maggiulli 2009: 323, fig. 7B; 326 no. 96) that has been preliminarily interpreted as belonging to an oxhide ingot. Trace elements and isotope ratio, though, were not consistent with the provenance regularly demonstrated for ingots of this date (i.e. Cyprus; see Jung et al. 2011). The two possible explanations for such a result are either that indeed the small fragment does not belong to an oxhide ingot (favoured by those conducting the study, see Jung et al. 2011), or that the find represents one of the few examples of these artefacts not matching a Cypriot source.¹⁵¹

¹⁴⁹ Possibly the latest context is Sàrdara near Cagliari, for which a terminus post quem is offered by the pavement of a 9-8th century BC structure; see Vagnetti et al. 1989: 226.

¹⁵⁰ The results of such analyses, however, have been severely questioned on several grounds by a number of scholars (i.e. Budd et al. 1995; Knapp 2000 with bibliography). Along with others (Knapp 2000: 38), the main criticism at those studies resides in the complexity of metallurgical practices in a Late Bronze Age context when re-melting was probably ubiquitous. Yet despite these limitations, while the precise positioning of the sources in Cyprus is indeed potentially faulty, their broad identification with the Island appears less problematic in the light of the fact that the process of re-melting together ingots and alloyed artefact is extremely unlikely (mostly because it would be extremely time consuming to purify the copper afterwards, Hauptmann et al. 2002; Knapp 2000; Gale 2011).

¹⁵¹ Muhly (2009: 28) refers also to ambiguous results for some ingots from Crete but these are very early i.e. dating to LM IB.

Moving outside the two main western Mediterranean islands, on the Italian mainland, Cypriot traces are at best ephemeral. Two vessels from Scoglio del Tonno have been interpreted as related to Cypriot parallels (Biancofiore 1967 Pl. 4, 34; Lo Schiavo et al. 1985: 7 no.1-2; Taylour 1958: 101, no. 86-87), but as remarked by Vagnetti herself, features such as the wishbone handle occur also occasionally in standard Mycenaean (and Minoan) products.

Possible Cypriot ‘involvement’ has been recently postulated by Bietti Sestieri (2008) and others (Pearce 2000) in relation to the finds from Frattesina (see previous section), on the basis of the considerable evidence for the local manufacture of goods like glass and ivory. Such a suggestion, however, rests on extremely thin ground. As for glass, Frattesina and a handful of other locales are indeed the earliest sites in Italy presenting clear evidence of production of objects in this material (Towle et al. 2001). However, as noted by Bellintani (2010a: 147), as far as pyrotechnology is concerned, the requirements for glass working are essentially the same of those for copper production, a craft extremely well attested in the area. Also, the compositional analyses of glass beads from the area have shown that, albeit showing a degree of variability (perhaps connected with a multiplicity of production centres), they follow consistently a recipe (low-magnesium high-potassium mixed alkali glass or LMHK) typical of European glasses. Given this, the acquisition of the technical know-how for their production need not imply direct contact either with the eastern Mediterranean or specifically with Cyprus (Angelini et al. 2009).¹⁵² Regarding ivory, while its presence does not need to hint necessarily at Cyprus, as the material circulated widely in Mycenaean Greece (Krzyszkowska 1990). Also, at Roca local manufacture commenced earlier than at Frattesina (end of Recent Bronze Age, Area X Phase III, while at Frattesina this dates to the Phase 2, corresponding to the mature Final Bronze Age; see Bietti Sestieri 1984; 1984a; De Guio et al. 2009). This has led some scholars to suggest that the site may have exerted some control over the circulation of this material in the northern Adriatic (Guglielmino et al. 2011). The possible ‘mediating’ role of

¹⁵² This hypothesis is not in contrast with the occasional presence in northern Italy of possible Mycenaean imports as suggested by Rahmstorf (2005) as these are likely to have travelled northward following the ‘standard’ Adriatic route witnessed also by the distribution of Aegean-type pottery.

Roca with respect to Levantine/Cypriot contacts to the north, has also recently found some confirmation in the identification of the fragment of a copper bun ingot in the 'hoard of the gold' (Maggiulli 2009, fig. 7, b) that according to provenience analysis is made with copper from Cyprus (Jung et al. 2011).

Yet, one of the main reasons for the lack of Cypriot copper in Roca's hoards is also probably chronological. Indeed in a mature phase of the Final Bronze Age (2 to 3; Roca's hoards are probably to be dated to Final Bronze Age 2), the centre of gravity of metal trade in the main western Mediterranean islands was rapidly shifting toward the Iberian peninsula and the Atlantic (Albanese Procelli 2008; Lo Schiavo 1991, 2008). Metal finds inspired by Cypriot prototypes continue to be attested both in Sicily and in Sardinia, now extending also to southern Spain (from which will eventually originate the important node of Huelva [González de Canales et al. 2006]). A degree of continuity can be noted between Late Bronze Age Cypriot presence and early Phoenician colonization in this part of the Mediterranean (Albanese Procelli 2008). Oxhide ingots probably ceased to circulate in Sardinia and the role of the island changed markedly as it now appears as the main player in the area, with an extremely proactive role in metallurgic production and linkages extending from Sicily to the Italian peninsula (the presence of travelling Sardinian bronzesmiths in Italy has been suggested by Giardino [2005] for this period), to Iberia and beyond (Giardino 1995: 293-5; Lo Schiavo 2008).

Late Aegean connections (LH IIIC middle-late)

In the wider central Mediterranean, after the end of the Recent Bronze Age, interaction with the Aegean world was decreasing. Of the many sites with finds of generic LH IIIC pottery in peninsular Italy, only a handful of them possessed material datable to the later phases of the period. It is, naturally enough, necessary to bear in mind that the vast majority of these finds are actually locally made and not imported (21 of 27 analysed by Jones et al. 2004: 175, excluding the material from Roca). The recent provenience analysis of the material from Roca, however, might indicate some different dynamics at this site, as two out of three vessels

analysed for this period have actually proven to be imported (although, naturally enough, this is not really statistically significant on the basis of the sample analysed from Roca; see Guglielmino et al. 2010, nos. 33, 39, 42; see also 5.1 for issues related to sample selection).

Since most of the finds recovered in Italy cannot be dated to a precise sub-phase within LH IIIC, it is theoretically possible that this period is underrepresented, due to a coincidental lack of specific chronological indicators. While this possibility needs to be taken into consideration, particularly in the light of the generally small assemblages recovered in Italy, it is nevertheless striking that even in sites with large quantities of Aegean-type material, LH IIIC Late pottery is extremely rare (Figure 6.3.10; see Benzi & Graziadio 1996). A few sherds have been recovered in association with Ausonian II levels of an at Lipari (Taylour 1980: 813 nos. 287-88, 228 Pls. 245 no. 6, 7, 11; 246 no 2) and some at Termito (Bianco & De Siena 1982: 78 no.5) but, excluding these, no other LH IIIC Late material has been found west of Apulia, suggesting a gradual detachment of local southern Italian products from the influence of the Aegean. In order to understand the reasons for this realignment, however, it is worth trying to briefly sketch out what the Aegean world was like at this point in time and in what ways it resembled or not the image of the 'Mycenaeans' which often accompanies the discussion of Aegean-type finds in the central Mediterranean, even at this late date (i.e. Benzi & Graziadio 1996).

In the previous chapter we mentioned the relative depopulation which characterized the Aegean after the fall of the palaces (section 5.3). This, however, was neither an abrupt process nor a universal one, with some areas experiencing much less distress than others, and in some regions where the effects of such dynamics can be appreciated only in the long term, i.e. taking into consideration the whole time span from LH IIIC Middle to the Protogeometric. As has been briefly suggested, some zones even increased their population in comparison to palatial times (i.e. Achaea, see Moschos 2009).

This is surely what happened at Tiryns, where population concentrated in the lower town experiencing, through LH IIIC, a final 'revival' which lasted for most of the period (Thomatos 2006: 189-196). A large quadrangular stone building (Building T) was erected and represented the closest structure to a megaron in the 12th cent BC. Signs of continuity, at least in some spheres (i.e. cult practices) are attested also at Mycenae (Maran 2001, 2006). Other important sites are also identified by a limited number of cemeteries such as Epidauros Limera, Medeon and Elateia, whose grave goods suggest the existence of some form of specialised craftsmanship as well as long-range contacts, most notably with the central Mediterranean (i.e. see the metal assemblages where many 'westernizing' objects have been found; see Chapter 5, Appendix 2 and Deger-Jalkotzy 2006; Dickinson 2006: 68-69).

As suggested by Dickinson, despite these hints to the contrary, on a global Aegean scale a process of depopulation was probably in place. By the end of LH IIIC Tiryns was probably only a collection of hamlets and the same fragmentation can be suggested for Athens on the basis of the segregation of various Early Iron Age cemetery nuclei around the Acropolis (Dickinson 2006: 88; Mühlénbruch 2009; Papadimitriou 1998; Papadopoulos 1993, *contra* Papadopoulos 2003: 273). It has been hypothesised that such process was accompanied by relatively large population movements on a wider scale and this has been suggested particularly for regions such as Achaia (Dickinson 2006: 93-98; Moschos 2009a: 348; Middleton 2008: 233-240; Osborne 2009: 49-51). It is likely, however, that if movement occurred at all, this might have interested particular sectors of the population, i.e. those more connected to the palaces such as specialised craftsmen, and the existence of a possible Minoanizing workshop at Klause in Achaia can be read in this light (Paschalidis & McGeorge 2009: 87-88). What seems to have been missing, according to Dickinson, is the clear evidence of site hierarchy, a feature that characterised the previous palatial period (Dickinson 2006: 84). Likewise, the same scholar notes that the first signs of differentiation are confined to the funerary sphere as substantial buildings are lacking and will appear again only in the Early Iron Age (Dickinson 2006: 104-110).

The situation on the Mainland diverges substantially from that of Crete where it is possible to notice more continuity in architecture, with instances of re-use of old structures and where a distinctive trend of abandonment of lowland sites and occupation of remote areas, particularly in the eastern part of the island, can be recognised (McEnroe 2010: 148-159; Nowicki 2000; Wallace 2003: 256-258).

Everywhere else, however, the preference for important late postpalatial sites in coastal locations has been noted (Dickinson 2006: 69) and interpreted as an indication of the importance of interconnections. Although this is possible, the range of these interconnections is likely to have been generally relatively modest in extent and surely less extensive than in palatial times.

Linkages within pottery production are well attested and unite areas of relatively limited extent (Mountjoy 1999: 53-55). These are, for instance, the Dodecanese, Crete and Cyprus (Dickinson 2006: 67-8; Sherratt 1982); Chios and the eastern Aegean (Mountjoy 1998), Lefkandi, Mitrou and other little explored sites in Boiotia (Mountjoy 2009; Sherratt 2006: 218-220). One of the most distinguishable of these regional styles is probably the so called Western Mainland Koine identified by Mountjoy (Figure 6.3.11; see Mountjoy 1999: 54-55), which was in place during the later phases of LH IIIC and included a large area which goes from central-western Greece (Arcadia and Aitolia Akarnania) to Achaea and the Ionian islands (although to a more limited extent according to Mountjoy), up to Albania and perhaps also southern Italy (Eder 2009; Moschos 2009).

As for Albania, in general terms Aegean finds are extremely rare as in the previous period. A notable exception is constituted however by the tumulus at Barç (Figure 6.3.11 no.1), where instead Aegean-type pottery represents a good proportion of grave-goods (about 20% according to Bejko 1994, see also Andrea 1985 for the context). Specifically Achaean/western mainland influences are also present, e.g. the typical stirrup jar (Figure 6.3.12c) as well as the narrow necked jug from Piskovë (Figure 6.3.12d), suggesting that indeed the inclusion of this area in an extended version of the western mainland koine has some basis.

For Apulia, it has been suggested in the past (Fisher 1988) that the main links of Apulian Aegean-type pottery are again specifically with the western part of mainland Greece and it is worthwhile to investigate this further. It is important to remember that the discussion in the previous chapter (section 5.3) has already shown that this hypothesis is not tenable for Roca, at least during the Recent Bronze Age, when the connections identified clearly link the site with a variety of areas. Particularly strong ties have been identified with the main sites of the Argolid, above all with Tiryns, as well as with Crete, although for this last zone it is not easy to assess if and to what extent relations were mediated by the former area. The possible incorporation of Apulia in the west mainland koine would be, consequently, a phenomenon unique to the last part of LH IIIC.

In the Final Bronze Age, Apulia has produced the largest and most coherent assemblage of Aegean-type material of this period with findspots at Porto Perone - Satyron, Scoglio del Tonno, Punta Meliso - Santa Maria di Leuca, Roca and Madonna del Petto (Figure 6.3.10), and elements hinting at the western part of the Peloponnese are extremely well attested. The comparison of the two largest assemblages of Apulia, i.e. those of Punta Meliso and of Roca, should allow a detailed exploration of this hypothesis. However, while for the first site the material can be uniformly dated to about the same chronological horizon, for Roca it is necessary to assess what is worth comparing. Indeed, since the discussion on post-depositional patterns has revealed their importance in the formation of the assemblages of the last two phases of the site, it is probably a wiser choice to take into consideration only all the vessels stylistically datable to LH IIIC Middle to Late notwithstanding their provenance.¹⁵³

The sample size from the two sites, once the non-diagnostics at the shape level are expunged, is actually about the same (18 vessels for Punta Meliso and 20 for Roca respectively), suggesting perhaps a similar intensity of interaction with the Aegean world during this period. Also, as far as composition is concerned

¹⁵³ Vessels published coming from different areas of the excavation have been included in this count (most notably those published in Guglielmino 1996, 2006; and Guglielmino et al. 2010). Vessels belonging to Area IX Phase 5 and Area X Phase III (i.e. the last two phases of the Recent Bronze Age) have been excluded.

(Figure 6.3.13), similarities are considerable as in both assemblages the most well-represented shapes are large closed containers (amphore/hydriae) and the usual kraters and deep bowls (i.e. id 10273, 10365 data for Punta Meliso from Benzi & Graziadio 1996). But it is also interesting, how the two sets of pottery differ. Some of these differences can be attributed to a degree of chronological difference between the two. This is perhaps the case for carinated cups (Figure 5.3.18; id 127 and 438; two nearly identical vessels with different fabric; for this aspect see section 5.1) whose chronological limit, according to standard Aegean typology, is LH IIIC Late. Their absence at Leuca - Punta Meliso can indicate a slight posteriority of this assemblage, even if caution is recommended, since this shape has a strong local character, suggesting that a perfect adherence to standard Aegean chronologies should not be taken for granted.

Other differences between the assemblages, such as the presence at Roca of medium-small closed vessels, above all three stirrup jars (two small [id 11348, 11370] and one large [Guglielmino et al. 2010: 273 no. 42]), may instead be due to other reasons. These vessels show all distinctive Achaean influences (fringed semicircles and cross-hatched triangles, but also the so-called Achaean banding, characterized by regularly spaced narrow bands covering the lower part of the body of the vessel; see Figure 6.3.14). Two have proved to be direct imports and among these is the large example which stylistically constitutes the quintessential vessel of the West Mainland Koine (Mountjoy 1999: 54). Apart for stirrup jars, other precise parallels have been identified for a large closed vessel from Roca with material from Lasteika (in Elis; Eder 2009: 145, fig.2 nos. 2-3; see Figure 6.3.15), while consistent are also similarities with vessels from Elis and Punta Meliso (Eder 2009: 144-145, fig. 1-2).

Generic affinities with the pottery from sites of the west mainland koine can be seen in the fact that some of the vessels with parallels elsewhere have been also attested in western Greece. This is the case of id 10983, a narrow necked jug/lekythos handle, with parallels both from Attica and Achaea (Mountjoy 1999:

427, 610 nos. 95, 533-541) as well of the late deep bowl id 10273¹⁵⁴ (Guglielmino 2006, fig. 11 no. 12) which compares with examples from Corinth and Lefkada (Mountjoy 1999: 242 no 229; Souyoudzoglou-Haywood 1999, Pl. 1, no. D60-61). Another interesting example of this process is offered by a deep bowl (see Figure 6.3.16; id 10320 Area IX Phase 7) which has a syntax reminiscent of the Close Style, with a possible figurative element and panelled decoration. Some details of the decoration, however, are not consistent with this interpretation, most notably the pendant semicircles on the lip, which replace the usual dotted decoration on a reserved band. Such a feature has no obvious comparison in the Mycenaean world. Parallels can be found instead on the Ionian islands in the Protogeometric period, but the semicircles are compass-drawn and far larger (i.e. Souyoudzoglou-Haywood 1999 Pl. 39 no. S285 from Ithaka), while an extremely similar vessel comes instead from Rethymnon and has also the panelled decoration (Andreadaki-Vlazaki & Papadopoulou 2005: 373, fig. 34).

6.4 The Final Bronze Age southern Adriatic: Modes of Production and of Interaction

As was the case for the previous period, the overview presented for each spatial level of interaction has demonstrated that, unfortunately, the Final Bronze Age in the southern Adriatic is not exactly blessed with a wealth of contextual information, mostly due to the fact that many important sites were excavated long ago and/or have been poorly or incompletely published. Nevertheless, the picture that can be glimpsed through the scant data available, though patchy and incomplete, is undoubtedly telling of major changes occurring in the area. One of the most evident on a global southern Adriatic scale is undoubtedly the decrease of interaction with the Aegean world. As noted for some time by various scholars (i.e. Benzi & Graziadio 1996; Bietti Sestieri 2010; Vagnetti 1979), traces related to interaction with the Aegean world start to become thinner in a LH IIIC Middle-Late timeframe, although they do not disappear altogether.

¹⁵⁴ The proposed dating of this deep bowl fragment to the Submycenaean (Weninger & Jung 2009: 389) has been recently criticized by Papadopoulos and others (2011: 196-7) in a broader criticism of the value of Submycenaean as a self-standing chronological phase.

Given the theoretical premises of this study (section 1.3), since it was possible to note in the previous timeframe a degree of correlation between Aegean-type material and capital accumulation, this process should be accompanied by a gradual decrease in the resources available to the community as a whole. Yet, in its general development, the record of the southern Adriatic seems to hint at the exact opposite. There is, in other words, a lack of correlation between signs of capital accumulation and traces of interaction with the Aegean world, but connections with other areas both in the region (section 6.2) and in the wider Mediterranean (section 6.3) do not seem to be in any way negatively influenced by this and actually flourish.

The foremost sphere in which it is possible to note the correlation between production, capital accumulation and interaction with areas different from the Aegean world is undoubtedly metallurgy. The abundance of hoards and the endless number of connections ranging from northern Italy to the Balkans unmistakably testify to this (section 6.1). While the relevance of metallurgy in the archaeological data is likely to have been, to some extent, influenced by the nature of the documentation available (i.e. decontextualised items from museums and collections), its constant correlation with interaction is not. In a sense, the very fact that metallurgy absorbed such a wide proportion of communities' resources devoted to (particularly long-range) interaction, represents a near-to-optimal strategy in order to maximise the income of groups involved in such activities, as bronze still represented a resource with a very favourable ratio between bulk/weight and value.

Capital accumulation is also indicated by specialised pottery production such as wheelmade pithoi and SIP pottery (sections 6.1-2). The existence of these two specific classes of vessels represents a hint at the continued existence of a sector of specialized manufacture which had access to the know-how (potters wheel for the pithoi, clay selection and high temperature firing for both storage containers and SIP) as well as to the resources (high fuel requirements for firing and, more broadly, labour-intense production) necessary to continue to operate.

Pithoi also attest to the ability of local communities in Apulia and broader southern Italy to accumulate on a scale previously unprecedented. No Impasto dolium or olla has the same capacity (600 l.) of these vessels, and this is also valid for large closed Lustrous Decorated shapes. However, while the increased popularity of pithoi can apparently be connected to dynamics internal to the settlement's production, the situation is different for SIP.

The regional network (see section 6.2) based on the sharing of motifs on pottery seems to indicate an intense communication, similar (if not even stronger) to that attested in Subapennine times, and this communication probably underlay a diffused exchange of surpluses between different groups within the population of various Adriatic communities. The modes through which these surpluses were exchanged, however, are less easy to glimpse. Since, as suggested by Levi (1999: 259), there is no real technical regression in any field of pottery production, Impasto included, from the incipient stages of specialization noted in the Recent Bronze Age, it is arguable that pottery production still conformed to the model of the small workshop mentioned in the previous chapter (Levi: 1999: 258-259; 2004: 239). It is unlikely that the sole abandonment of the wheel for fine painted ceramics represented a return of the social structure of production to forms typical of the Middle Bronze Age. Simply, with a conscious technological choice, artisans and consumers of Final Bronze Age pottery considered the use of the wheel for smaller vessels not worthwhile. A modification to Levi's proposals is the suggestion, based on ethnographic comparison, advanced by Guglielmino (1999), for the production and distribution of wheelmade pithoi. This entailed the existence of travelling potters (whatever their 'ethnic' origin) offering their service to various communities over a wide area. Also, given the strong parallels between these pithoi and SIP (section 6.1, and Bettelli & Levi 2003), the model can perhaps be tentatively extended also to the production of the latter class of pottery. It is necessary, of course, to envisage the activity of these potters as deeply embedded within the social practices of local communities. On the basis of the rarity of SIP, as well as of its suggested prestige value (section 6.2), it is possible that the work of these potters was required only at certain special occasions and that donating

precious fine painted vessels (occasionally of very large size as in the case of basins as well as of some urns) may have functioned as an expedient to solidify allegiances between specific sectors within the population of different communities, a custom which might have been accompanied by the movement of other goods, less easily recognisable in the archaeological record. Inter-community marriages and other similar mundane or religious events might have provided the occasion for such practices.

In order to explore such a proposal, however, it is necessary to have a vague idea of the size of the community as well as of that of the co-residential units within communities, as the resources to access the work of specialised craftsmen probably exceeded by far the amount of surplus possibly available to a nuclear family such as the one that found shelter in Postern C at Roca during the Middle Bronze Age. Keeping in mind its specificities, also for the Final Bronze Age the evidence from this site can be extremely useful in assessing this question.

The majestic proportions of the structure in Area IX, along with other contextual hints (see below), have induced the excavators to suggest that the building of Area IX probably had a cultic function. However, this building is not the only large one at the site during this period. Another building at least comparable in size contained the four wheelmade pithoi in Area VI (was at least 20m long Guglielmino 1999: 475), and this had also in common with that in Area IX the peculiar construction technique involving the use of large postholes regularly spaced (see section 6.1). The same technique was also shared by the structure in Area X, for which the overall size is actually impossible to assess and that was very likely to continue to the west and east of the area exposed. In other words, the building in Area IX is only one example, perhaps the best preserved, of a wider pattern involving pretty much the whole settlement, entailing the primary use of wood for the construction of large buildings defining a 'modular' use of space.

Coming back to the evidence from Area IX, it is necessary to stress how the quantitative analysis of materials recovered in the sampled area has produced results which, at least in part, further undermine the hypothesis of a purely 'cultic'

orientation for the building (Malorgio & Magiulli 2011). No miniature pottery shapes were recognised among the material studied so far (Figure 6.4.1; Malorgio & Magiulli 2011) even if, according to the excavators, these were present in other parts of the building (Guglielmino & Pagliara 2004: 580).¹⁵⁵ Likewise, the interesting example of olla with a cordon decoration shaped in the form of a snake (Guglielmino 2006: 100, fig. 15), which has been identified as a possible cultic vessel is actually perfectly functional in its proportions and the evidence for its ritual use is lacking. Even the recovery of three piglets (in anatomical articulation) in spatial association with a knife and other metal implements (most notably a spearhead and a double axe, an object that, incidentally, is never associated in the same image with animal sacrifices in Aegean iconography, see Younger 1995: 519-520 and Figure 6.1.34), indicated as evidence for animal sacrifices (Pagliara 2005), may instead be entirely casual and due to the sudden destruction suffered by the structure which might have entrapped also the animals.¹⁵⁶

A final element for which a function connected with ritual has been proposed is the suspected example of a Mycenaean slaughtering stone (Figure 6.4.2; see Guglielmino 2003: 110), for which comparisons can be found in the Cult Centre at Mycenae (Mylonas 1977: 19-22, 92). This consists of a stone slab, at the side of which is located a small basin with channel whose supposed function was to collect the blood of the sacrificed victims. However Roca's example is actually entirely made of raw clay, an aspect which questions its effectiveness with respect to the function postulated. Furthermore, the interpretation of the original slaughtering stone at Mycenae has been also questioned by French (2002: 87) on the basis of the lack of contextual elements related to cult in association with this artefact (the presence of animal remains in the wider Cult Centre Area indicated by Guglielmino [2003: 103] cannot be considered as an indication of ritual as they might have ended there as a result of a variety of processes).

¹⁵⁵ Interestingly miniature vessels are attested at other cultic contexts of Bronze Age Apulia such as, for instance, at Middle Bronze Age Trinitapoli (Tunzi-Sisto 1999).

¹⁵⁶ In the case of a planked floor in this area of the building, the hypothesis of an accidental death of the animals can be supported by ethnographic examples where animal enclosures were often located below the raised floor (i.e. Loupis 1983).

Despite the overview offered so far which may hint to the contrary, traces of cult activity *are* undoubtedly present in the building and can be recognised in the small anthropomorphic idol in Impasto pottery recovered in the SW sector (Figure 6.1.20 no. 3 and Figure 6.4.2), and an animal figurine (again in Impasto pottery) from the general area of the building. Also, and more importantly, the golden disks recovered in one of the two hoards of the structure are unequivocally, if not cult paraphernalia *tout court* as suggested by the excavator (see Figure 6.1.36 and Pagliara 2005), at least highly symbolic artefacts, connected with ritual as much as with prestige.

In general terms, the main interpretative objection toward an exclusively cultic function for the Area IX structure stems from the detachment of the sphere of ritual from the domestic one that this view entails. The archaeological record of Area IX Phase 7 hints both at the domestic *and* at the ritual spheres. A clear exemplification of this is offered by the so-called offering tables recovered in various zones in the structure (see Figure 6.4.4 and Guglielmino 2005, 2006; Malorgio & Maggiulli 2011: 145, fig. 7.I). Although similar as far as general morphology is concerned, the parallels proposed by Guglielmino (2006, 2008) are very early (dating mostly to MM III-LM I Crete) and differ substantially from the examples from Roca as many of these vessels are actually painted (see Puglisi 2010 with bibliography). Much more fitting appears instead the comparison with another class of artefacts dating to mature palatial times and recovered at various locales in Mycenaean Greece, namely *griddles* (Lis 2008: 147 note 37 with bibliography), simple circular tripod trays in coarse fabric used as kitchen implements. A connection with cooking at Roca seems to be confirmed also by the Impasto ceramic repertoire associated with them in the SE area of the building, as well as by their association with other similar objects like portable ovens (*fornelli* in Italian, see Malorgio & Maggiulli 2011: 142, fig. 6). The only peculiarity of Roca's examples is in their lower surface which is plain and not textured as it is in the standard Mycenaean shape. Among other possible uses, these vessels were also probably used for cooking a flat bread not unlike a modern pita, a rather prosaic function. Yet, the fact that at Roca the upper face of these vessels, i.e. where presumably the bread was placed to be cooked, presented grooved decorations like

svastikas and other solar representations, similar also to those attested on the golden disks, confers to the use of these apparently humble objects a symbolic dimension that cannot be dismissed. It can be even suggested that the real function of such decoration was to produce bread with a positive image of those symbols.

Another example of how domestic and ritual aspects blended together smoothly is represented by the enchythrismos, i.e. an infant burial in a pottery jar, recovered in the SE sector. Burials *per se* are unquestionably part of a ritual but in Apulia, enchythrismoi have also a long history, which starts around Final Bronze Age and continues well into historical times (see Becker 1983), during which they are *always* associated with domestic areas.

All these elements suggest that Area IX was not the isolated exception but rather the rule and that the functional differences between different areas explored of the Final Bronze Age settlement are much less marked than has been argued in preliminary interpretations. Taking the example of storage, the capacity of each zone, as attested by the different number of pithoi in Areas VI, IX and X (4, 5 and 2 pithoi respectively), suggest comparable activities, and differences are more likely to represent unequal levels of accumulation exhibited by distinct residence groups within the community. As a consequence, Area VI (which revealed also prestige material such as a large SIP urn; Pagliara & Guglielmino 2005: 304, no. II 196), more than a 'palatial' store-room, represented a storage area belonging to a large multi-functional structure, very much like that in Area IX.

Having ascertained that the function of the Area IX building was also to some extent domestic, it is now necessary to take into consideration the full consequences of this. Indeed, comparing 5x9m of the apsidal hut of Area IX Phase 3 (the largest building at Roca before the Final Bronze Age, see section 5.1), with the 40x15m of the structure of Phase 7 in the same area, it is possible to appreciate the noteworthy change of the co-residential unit attested at the site during this period.

Naturally enough, as mentioned before, it is not possible at present to assess the exact limits of each habitation sub-unit within the Area IX structure

since there are no apparent internal divisions and we are obliged to consider that the whole area was occupied by roofed space. This reasonably suggests that, although arguably not all the people living in the area belonged to the same co-residential group, at least dwellers of the area had some sort of closed kin relationship broadly intended (however closer than that with inhabitants of other areas of the settlement). Unfortunately, given the uncertainty of the boundary of each habitation nucleus, estimating the population of the roofed area is not possible as suggesting any more precise assessment of this enlarged co-residential nucleus would mean using common rules of thumb (i.e. Naroll 1962) that have been seriously discredited (Whitelaw 2001a).¹⁵⁷ In any case, the evidence of Final Bronze Age Roca speaks clearly of a considerable increase in social scale of the minimum unit forming social groups within the community.

Bigger groups mean bigger consumption units and larger surpluses (Grier 2003) and, as has been seen, the record from Roca yields outstanding traces of this process. Looking for the possible motivations beyond this fundamental shift, there are no apparent reasons in what is normally referred to as 'subsistence' economy. Bioarchaeological data are not particularly abundant but, in any case, they do not seem to testify to the occurrence of major changes, as was the case, for instance, during the Recent Bronze Age (see section 5.1 and Di Rita & Magri 2009; Fiorentino 2010).

However if we put aside 'subsistence' production (whatever the meaning of this term is in a Late Bronze Age context, see Sherratt 2004) and take into consideration interaction, different insights can be developed.

The participation in common efforts aimed at the procurement of goods via trade activities might have provided a reasonable rationale for pooling resources and

¹⁵⁷ In a very tentative fashion we can try to use the approximate area of the Phase 3 hut (40 m² already a large building), dividing it into the 650m² of the total roofed area, and then considering the result (about 16), hypothetically corresponding to the number of nuclear families within the larger residence group. Using 7, the number of individuals represented in Postern C during Middle Bronze Age, yields a gross total of about 113 individuals. Such a count, however, is surely inflated in consideration of the fact that a (possibly large) portion of the area was surely not residential space. Nevertheless, it provides an assessment of the order of magnitude of the possible social groups inhabiting Area IX.

increasing the size of the social group. This is even more likely if, as was suggested in the previous chapter, sailing technology was adopted. The requirement of travelling and trading through a sailing ship, in terms of resources necessary to fill the keel with goods to be exchanged and of manpower necessary to operate the vessel itself were unlikely to be met by a small group of people, let alone by a nuclear family. Indirect traces of the existence in Roca's community of the ability necessary at least to build ships, is offered by the peculiar technology which characterises the structural evidence related to the mature Final Bronze Age horizon, that is, its massive employment of wood, as well as by the direct attestation of carpentry tools such as drills, saws and related tools (most notably in the hoards; see Maggiulli 2009).

All this evidence highlights that the community inhabiting Roca during this period was probably considerably strong in its relation of interaction with partners and particularly with Aegean ones. This was not only because of its increased ability to accumulate capital to be destined for interaction and because of the improved technical capabilities fostered by the adoption of sailing. It needs to be observed that the Aegean partners of this period, most notably the relatively small sites in western Greece and in the Ionian Islands (section 6.3), had probably considerably fewer resources than their palatial predecessors.

Overall, the fact that during the Final Bronze Age, at least western bronze items (but perhaps also HBW) were still attested in minor quantities in the Aegean (i.e. similar to the presence of Aegean-type pottery in the west; see Benzi 2009: 56-7; Benzi & Graziadio 1996; Moschos 2009: 374) indicates that, within a general framework of decreasing east-west contacts, the balance between the two interacting partners was substantially equal. In this context, it is probable that a center like Roca was not a peripheral partner to the range of practices manifesting themselves in the pottery of the so-called Western Mainland Koine but, rather, acted as a 'full member' exercising a significant influence on its partners (see section 6.3). Broad southern Adriatic influences reverberated surely to the north, along the Adriatic coast, for instance in the sites in Abruzzo where Protogeometric

vessels, particularly similar to the Apulian specimens, have been recovered (Di Fraia 1995).

It is necessary to bear in mind, however, that some of the trends encountered at Roca are not limited to the southern Adriatic alone, but there are hints that similar dynamics were occurring in other areas of Italy. Some of the elements encountered in the description of the Final Bronze Age record of Roca can be identified in a variety of contexts from west to east, underlying possibly analogous developments over a large area. Large hoards are ubiquitous during this period in the central Mediterranean Final Bronze Age and occasionally are associated with relatively larger buildings and SIP, such as in the case of the Lipari hoard (containing 75kg of metal, see Giardino 2004) recovered in the Alpha II hut which, though not large in absolute terms, is surely larger than those belonging to the pre-Ausonian phases (Bernabo Brea & Cavalier 1980). Likewise large wooden structures resembling those at Roca Area IX and associated with local Matt-Painted pottery have been identified in Sicily at Metapiccola, close to Siracusa (Rizza 1962). Again, near this last site, a similar context has recently emerged at Morgantina where the structures identified are described by the excavators as longhouses able to guest enlarged kin groups (Leighton 2011, 2012).¹⁵⁸ Like at Roca, these structures were endowed with extensive storage facilities able to preserve the large amount of surplus gathered by the large social group which inhabited them. Similar facilities are recorded also at Broglio where, at this time, Aegean-type pottery has disappeared (Moffa 2002).

To the east, the development of long apsidal buildings towards the end of the Bronze Age and the beginning of the Iron Age is a well known fact that has been analysed in depth (Mazarakis-Ainian 1989; 1997). The northern examples of these buildings were also accompanied by local Matt-Painted products (see Horejs 2007).

¹⁵⁸ Only two fragments of SIP have been recovered at the site (Leighton 2012: 149 no.166-167), however it needs to be stressed that another local variety of fine painted pottery (i.e. Plumed ware typical of the Pantalica culture), was well attested at the site and might have played the same role at SIP in Apulia.

A new grammar of display, purely local in nature (in all the multifaceted aspects this expression underlies), was being developed in a myriad of different centres, not only in southern Italy but in the broader central and western Mediterranean up to the Balkans, an area broadly corresponding to what has been defined as the 'periphery' of the Mycenaean world.