From Protohistory to History: social change in southern Italy at the dawn of the Classical world

Final Report

Figure 1: Early Iron Age female burial from Incoronata (Chiartano 1994a, Tab.VII,21,22.)
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The Early Iron Age is a crucial period in the history of the Mediterranean. During the 9th and 8th centuries BC the main contours emerged that shaped the ancient world until late antiquity. These include, for example, the creation of independent urban centres (such as Rome and Athens), a shift towards greater social complexity, and the creation of a Mediterranean-wide network of exchange. Such patterns have been identified in many regions of the Mediterranean (from Spain to Sardinia, Italy, Greece and the Near East), but we are still far from grasping the different interconnected factors that caused them. Within this historical framework the Greek colonisation has long held a privileged position, because it is considered one of the main catalysts of these far-ranging changes.

In recent years, the Greek colonisation has also been at the centre of a lively debate. This was sparked by the reinterpretation in post-colonial terms of its traditional narrative, which conceived of it as a centralised enterprise based on conquest and domination. Post-colonial reinterpretations criticized the one-sidedness of such a narrative, and highlighted the need to more firmly include local populations into the study of Greek settlement abroad (van Dommelen 1997, Yntema 2000, Dietler 1995, Burgers 2004). More recently, researchers have highlighted the fluid reality of Early Iron Age interaction processes, seeking to move beyond the dualist interpretation of 'Greek vs. indigenous' relations. Such approaches have emphasised that the Mediterranean was a place of rapidly expanding connectivity, where group identities were negotiated on multiple levels, with concerns of social competition intercepting rapidly shifting ethnic identities and access to an increasingly eclectic set of foreign goods and ideas (Gosden 2004, Malkin 2002, 2004, Morris 2003, Horden and Purcell 2006, Hodos 2009, Giangiulio 2010).

These new approaches are particularly relevant for southern Italy, where there are indications that the Greeks migrants integrated into a developing cultural and political landscape dominated by indigenous communities (Burgers 2004; Burgers and Crielaard 2007; Crielaard and Burgers 2012; Saltini Semerari 2010; Vanzetti 2002). The resulting power negotiations would have been conditioned by the internal dynamics of the indigenous populations as much as, if not more than, by those of the Greeks (Appadurai 1986; Shorman and Urban 1998). However, the long-term disciplinary focus on the Greek colonisers has left a gap in our knowledge of the local populations the Greeks interacted with. In particular, we lack any detailed information on how society was internally organised in the Early Iron Age and how it changed during that time – and thus we do not know which socio-economic mechanisms led southern Italian populations to become involved in overseas exchanges, to allow the settlement of Greek groups in their territory, and to build increasingly entangled relations with them.

The project From Protohistory to History: social change in southern Italy at the dawn of the Classical world seeks to address this lacuna, contributing to the colonisation debate by (a) addressing the long-term social development of the indigenous populations that interacted with the Greeks using the Gulf of Taranto as a case study. Here the Greeks founded three major colonies between the end of the 8th and the end of the 7th centuries BC (Taranto, Metaponto and Siris); and (b) testing the applicability of a multidisciplinary approach to this contested issue that integrates cultural and biological data. The project focuses on funerary evidence, embedding it into the broader landscape and settlement context. The choice of funerary evidence was dictated by the fact that it allows the cross-correlation of information about individuals' social identity (status, gender, relations, social roles etc.) as symbolically represented through burial by the community, and their physical state (sex, age, pathologies, kin relations, mobility). A multidisciplinary spectrum of analyses is being applied to two extensive
cemeteries of the Taranto Gulf, Incoronata and Santa Maria d'Anglona, which together span the entire Early Iron Age (late 10th to 8th century BC). These analyses include:

1. Typological analyses of grave goods and burial remains (to investigate social representation of the dead)
2. Osteological analyses of human remains (to determine population structure)
3. Morphological and metric analyses of dental remains (to establish variability and thus biological distance within the population and between populations)
4. Isotopic analysis of tooth enamel (to reconstruct diet and mobility)
5. AMS radiocarbon dating (to establish an absolute chronological sequence for the two cemeteries)
6. Spatial analysis of burials (to examine distributional and diachronic patterning in cemetery structure)

The results of these analyses are organised within an integrated GIS-relational database, and queried with the aim of reconstructing gender roles, kinship groups, strategies of social competition, patterns of conspicuous consumption, and how these are linked to foreign connections (via trade and exchange) and individual mobility.

II. Implementation

These analyses are not fully completed because of one major change in the research design that occurred in the first year of the project and caused some delay in the planning of activities. It was discovered that the osteological remains of the Santa Maria d'Anglona necropolis published by Frey (1991) had been discarded after the excavation. The project was adjusted to include the unpublished part of the same cemetery, excavated by the local Soprintendenza (the regional institution for heritage management). Fortunately, funding has been secured in the form of Gerda Henkel Stiftung scholarships, and the project shall be completed within a year from the original plan.

Nevertheless, four fieldwork campaigns were organised by Dr. Saltini Semerari, from the VU University Amsterdam, and carried out in collaboration with Hannes Rathmann, an osteologist from the Eberhard Karls Universität Tübingen. On the osteological remains the following analyses were conducted:

7. Sex and age determination (for Santa Maria d’Anglona): The results articulate directly with the study of gender and age identities in the past. In addition, sex and age estimates are used to: (1) provide the basis for population demographic calculations; (2) generate a comparative framework for the study of postmarital residence rules and diet; and (3) mitigate nongenetic factors that could introduce error into the more complex analyses of biological relationships (including postmarital residence analysis and kinship analysis).

8. Determination of postmarital residence rules (for Santa Maria d’Anglona): High-quality geometric morphometric data from human dentitions (Gomez-Robles et al. 2007; Bailey et al. 2014) as well as heritable non-metric dental traits (Alt 1997; Scott and Turner 1997) can be used to infer genetic variability within a population. The sex with the greater variability is assumed to be the more mobile sex, while the sex with the lesser variability is assumed to be the non-mobile, or resident, sex composed of related individuals with similar variance and covariance (Königsberg 1988).

9. Kinship analysis (for Santa Maria d’Anglona): The dental data were subjected to a hierarchical cluster analysis of inter-individual Euclidean distance coefficients (McClelland 2003). The res-
ulting cluster ordination can identify individuals that closely resemble one another, indicating close familial relationships.

Inter-population distance analysis (including Santa Maria d’Anglona and Incoronata): High-quality geometric morphometric data from human dentitions as well as heritable non-metric dental traits can be also used to infer genetic variability between populations. This can point to the degree to which individuals from different communities intermarried.

The preliminary results show exciting potential for illuminating both indigenous social organisation and Greek colonisation dynamics. Below, three main results and their implications are briefly described.

III. Results

Postmarital residence patterns

Our study shows that male variability was about one half larger than female variability. This suggests that the indigenous community of Santa Maria d’Anglona was likely matrilocal. Though these results are preliminary, they have important implications for the nature of Early Iron Age indigenous societies and, more generally, the possibility of intermarriage with the Greek newcomers. Patriarchal organisation is commonly taken for granted in Early Iron Age Italy (e.g. Robb 1994, Chiartano 1994a, Bianco and Tagliente 1985). However, recent research suggests that at least in some regions like Campania and Basilicata women held important social roles (Cuozzo 2003, in press, Saltini Semerari 2009) that may have included direct involvement in contacts with Greek newcomers (Markantonatos 1998, Cuozzo in press, Cerchiai and Nava 2009). Our pilot results lend empirical support to the hypothesis of prominent social roles for EIA women in southern Italy. Interestingly, though, the evidence for matrilocalty also points to possible cultural obstacles to the idea of indigenous women marrying into Greek households, which should be taken into account when considering this latter aspect of colonial contacts (see also Saltini Semerari in press).

Kinship organization

The second result concerns the identification of two distinct clusters of biologically related individuals (see Fig. 1, section VII). Further comparison with the spatial organisation of the cemetery shall allow us to test the widely held assumption that spatially grouped burials within EIA cemeteries represented distinct kin groups.

Biological similarities between Greek and indigenous communities

Finally, we compared the indigenous populations of Santa Maria d’Anglona and Incoronata with that of the two Archaic cemeteries of the Greek colony of Metaponto (one urban, one rural) (see Fig.2, 3, section VII). These two Metaponto populations were originally analysed by R. Henneberg (1998), who compared them to two indigenous cemeteries near Rome that post-date the Metaponto sample by ca. 700 years (Lucus Feroniae and Portus Romae). Four main conclusions can be drawn from this analysis.

First, there is a significant genetic difference between indigenous and Greek populations in the area. This is not surprising and reflects our general understanding of the Greek colonization as a process that saw the settlement of peoples from the Aegean to other areas of the Mediterranean including Southern Italy.

Second, the populations from the indigenous sites of Incoronata and Santa Maria d’Anglona
show a close genetic relationship. This indicates close contact between the two sites and may be an indication of indigenous cohesion prior to the Greek colonization, at least among prominent coastal sites.

Third, compared to the two indigenous sites the two Greek cemeteries of Metaponto, surprisingly show greater genetic distance even if they belong to the same site. This may be explained in two ways. First, this may support Osborne’s (1998) idea that Greek colonies were not homogeneous, but were composed by settlers coming from different areas of the Aegean and possibly the Mediterranean. Second, it may also underscore different phases of the colonization process. The chora of the Metaponto colony was occupied at a later stage than its urban nucleus, and it is possible that this later occupation was largely carried out by a second wave of settlers coming from a different area in the Aegean.

Finally, the population of Incoronata is biologically closer to Metaponto’s urban population. The fact that Incoronata is closer to Metaponto than Santa Maria d’Anglona can be explained with its greater geographic proximity. It may be also tentatively connected to the later evidence of ‘mixed’ Greek-indigenous occupation of the site (Denti 2009). The proximity to Metaponto’s urban population (rather than its rural population, as originally hypothesized by Henneberg) may be yet again explained with the diachronic development of the colonization process. Archaeological evidence has indicated that the early phase of colonization, concentrated in nucleated settlements, was one of close interaction and possibly co-existence. Indeed we find ‘mixed’ contexts dating to this period in Incoronata and Metaponto itself (Denti 2009, De Siena 1986). Only later, from the end of the 7th century and especially in the course of the 6th century, did borders between the two populations begin to become clear-cut. In the course of this period the Greek colonies acquired a well-defined urban organisation with public and sacred spaces, and expanded into the surrounding territory (Carter 2006). This process has been associated with an increase in the population of the colonies, likely generated by new Greek arrivals. The rural Metaponto population, which our results suggest were less admixed with the indigenous population, is likely associated with this second wave of arrivals. The changed power dynamics between Greeks and indigenes at this later stage of the colonisation process would have made admixture more difficult and unlikely than in the preceding period (Herring 2008). This would explain why admixture is restricted to the urban cemetery of Metaponto.

IV. Conclusions

The preliminary results of the project From Protohistory to History: social change in southern Italy at the dawn of the Classical world clearly show that a broader approach to the Greek colonisation inclusive of indigenous long-term dynamics can substantially improve our understanding. Three points are especially relevant for our interpretation of the Greek colonisation and the continuation of future research.

First, shifting the focus to the indigenous populations, which are generally understood in terms of the ‘others’ with whom the Greek settlers interacted, shows a rich and diverse panorama of traditions and relations that certainly played a role in shaping later contacts. The fact that indigenous populations were matrilocal, at least to a certain degree, carries major implications for our understanding of both local power dynamics and the possibility of intermarriage. It will also help define, as the studies sample expands, preferential relations between indigenous communities. The closeness of the two Early Iron Age cemeteries also points to a level of cohesion even between sites located at some distance from each other that was not expected. The existence of close
relations between indigenous groups further undermines the idea that a small contingent of Greeks could settle in the area without reaching a previous agreement with its inhabitants. It rather confirms the hypothesis of Yntema (2000) and Burgers (2004) that early Greek settlers integrated within a power landscape shaped by local populations.

Second, the results of the comparisons between indigenous and Greek colonies appear to contradict the traditional model of colonisation. Although further study will lend greater chronological definition to our results, they already show that the inhabitants of the Greek colonies originated from interaction with the indigenous populations and influx of people from different places over long periods of time. This stands in sharp contrast to the idea of uniform enterprises coordinated by the mother cities, but sheds further light into the fluid and complex world of the ancient Mediterranean.

Finally, this research opens important questions about the discrepancies between the biological identity of a community and its self-representation through material culture. Independently from interaction patterns and biological provenances of its inhabitants, the archaeological record shows that a uniform 'colonial culture' was created in Metaponto in the course of the 6th century BC. This has to be understood in the light of regional and Mediterranean-wide dynamics, and spurs further research towards understanding the processes of selection of collective memories and the construction of distinct identities through time.

The preliminary results have clearly shown the potential of this approach, but further studies are planned to expand and enrich the current picture. In particular, Dr. Saltini Semerari has obtained permits to enlarge the sample to a series of indigenous necropoleis both on the coast and further inland, and to the Greek colonies of Siris and Taranto. Moreover, these analyses will cover both the Early Iron Age and the Archaic period. In this way they will map the changes in interaction patterns between the two periods, and allow for a clearer understanding of the impact of the Greek colonisation both for the local populations and for the settlers themselves.

V. Dissemination and Societal Impact

Results of this project have been disseminated both in invited presentations in Universities such as Michigan, Tübingen, Siena, and most recently Lecce, and at international conferences (for details see the Periodical Report). Moreover, continued work in the Museums of Policoro and Metaponto has allowed the researchers to establish good relationships with the local archaeological authorities and the employees of the Museums. To reach the wider public, Dr. Saltini Semerari has planned together with them two presentations on the project's results and implications once the analyses are completed. These will take place in each Museum and shall be accompanied by a temporary exposition of artefacts and osteological remains related to the research. Moreover, she will provide the Museums with panels for their permanent exposition. To involve the public further, she is currently discussing with two local dentist the possibility of taking pictures of volunteer's teeth and to analyse them using the same methods applied in this project. The results will then be plotted in relation to the Greek and indigenous 'biological signatures' derived from the projects' results. Each individual will then be shown whether he or she is closer to the Greek or to the indigenous populations. Since there is a strong identification of the present population with the Greeks of 'Magna Grecia', this exercise will help public awareness of scientific research in the area concerning the interaction of Greek and indigenous populations. Ideally, this exercise should take place in the summer of 2015, and take advantage of the Museum presentations to involve volunteers. The aim of these outreach initiatives is to raise interest in the archaeology of southern Italy in tourists and
The impact of the project on the wider scientific community is twofold. On the one hand, its results are providing fresh data to a stagnant debate, and will certainly help promote new approaches and greater interest in the subject of indigenous societies and Greek colonisation. On the other, the project has served as a springboard for the creation of an international framework of collaborations, particularly between the Netherlands, Germany and Italy. This network, called Project AMICI (Ancient Mediterranean Interactions between Colonizers and Indigenes), is aimed specifically at coordinating and supporting research on Greek-indigenous interactions in the ancient Mediterranean (see the Periodical Report for greater details). This will also promote the completion of the the current project and its expansion to other sites in southern Italy.

VI. Bibliography


Markantonatos, M. 1998. Women’s roles in Iron Age Basilicata, South Italy: Indigenous women in


VII. Complementary Information

Fig. 1. Cluster diagram of inter-individual similarities in Santa Maria d'Anglona
Fig. 2. Table with results of Biological Distance Analyses

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Fig. 3. Scatter plot showing relative distance of indigenous sites and Greek colonies in Basilicata