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Social Networks in Late Hellenistic Northern Etruria: From a multicultural society to a society of partial identities

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Abstract: This contribution concerns the perception of local cultural identities in Hellenistic Northern Etruria. I aim to answer the following question: how did the evolution of the economic and politic relationships between settlements condition the perception and the expression of the local identities? During the Romanization, the Region of my case study presents a complexity of patterns, as result of the interaction of local needs and backgrounds with the global process of institutional and economic unification of the Mediterranean following. The Social Network Analysis (SNA) has been chosen as methodology to approach this complexity. I propose some parameters to detect local identity markers, then I present an integrated method to relate their development to the evolution of the relational networks between the communities.

"[…] Aren't all these who are speaking Galileans? 8 Then how is it that each of us hears them in our native language? 9 Parthians, Medes and Elamites; residents of Mesopotamia, Judea and Cappadocia, Pontus and Asia, 10 Phrygia and Pamphylia, Egypt and the parts of Libya near Cyrene; visitors from Rome 11 (both Jews and converts to Judaism); Cretans and Arabs […]"[1]

1. Research questions and methodology

This contribution introduces my research project[2] on the transformation of local cultural identities during the Romanization.[3] Because the project is still in progress, I will present the research questions, the methodological approach and some examples within a selected case study to illustrate the proposed procedure.

1 Bible. Acts 2,7–11 . NIV.

2 My ongoing post-doctoral research project started in 2015 and has so far been partially financed by the fellowship at the DFG-Training Research Group 1878 "Archaeology of Pre-Modern Economies" at the University of Bonn and Cologne. The project was presented and discussed during the meetings of the research training group itself, as well as at the 5th Seminar of the Mommsen-Gesellschaft "Local Responses to Global Change in the Ancient World", moderated by Hans Beck. The methodological applications have been discussed in Berlin, during the lecture series "Digital Classicist" of Topoi and DAI, and in some meetings, among others: The CAA-2015 in Siena, the "Digital Humanities" Seminar in Rennes; the workshop "Méthodes quantitatives et outils numériques appliqués à l'Antiquité et au haut Moyen Âge" in Grenoble and the TRAC 2016 in Rome in the panel session organized by Francesca Diosono and Dominik Maschek: "Beyond Hybridity and Code-Switching. New Approaches to Archaeology of Late Hellenistic Rome, Italy and the wider Mediterranean". These presentations have not been published, but I wish to thank all participants for the stimulating discussions. English text revised by Henry Heitmann-Gordon.

3 The term Romanization here denotes the complex process of adoption of Roman political institutions and Latin as official language in Etruria cf. Terrenato (1998a), 54. 94.

The aim of my research is to detect patterns of interaction between the perception of identities within local communities and the transformation of the relational networks between them. Generally speaking, the transformation of the relational network between local communities is governed by both local factors and interaction dynamics and by external forces and factors. This is particularly pertinent during periods of high personal mobility and frequent cultural contacts. The project further aims to understand whether changes in the perception of local cultural identities could be due to the impact of external forces and factors, such as Roman military occupation, the building of colonies and new infrastructures as well as the reorganization and unification of the commercial sea-routes after the fall of Carthage and the Roman conquests in Greece. How did the evolution of the economic and political relationships between settlements condition the perception and the expression of the local identities and how did global events[4] and dynamics affect the perception of cultural identities in the local communities? To approach these research questions a *glocal*[5] perspective has been adopted: the analysis of the local perception of identities within the communities has been related to the evolution of the network of the connections between them. The *local* dimension (local cultural identities) is detected by identifying specific identity markers within the archaeological dataset of the local communities. The global dimension (transformation in the networks of the communities[6]) is analysed through Social Network Analysis (SNA). The networks concern the geographic connection between communities, the social connections brought about by personal mobility, and the use of shared assemblages of objects (material exchange and agreements) and ideas (cultural transmission, political and religious affiliation). The unification of the local and the global dimension in a glocal perspective is obtained by combining the results gleaned from these two stands of analysis. This method is here put to the test in a concrete and specific case study: the Romanization of Northern Etruria.

2. Cultural Identities

The opening quotation from the Acts of the Apostles gives an intuitive impression of what I mean by the perception of cultural identities, here in the multicultural ancient community of 1st century CE Jerusalem.[7] The perception of different cultural identities depends on the use of different languages, on the geographic provenience, as well as on political and/or religious affiliations. This complexity makes it necessary to define more precisely the use of the term "cultural identity" in this contribution.

The phrase "local cultural identities" here denotes the collective identities of the local communities on a cultural level, meaning the system of values, codes and behaviors they share as a group.[8] These values and behaviors are considered to be specific to and characteristic of any given community, and used in a diacritical function respect other communities. The term 'identities' is deliberately used in the plural, implying that different cultural identities

4 For an application of globalization theory to the material culture of Hellenistic contexts cf. Hoo (2015) 37 f. For the interpretation of the process of Romanization as a global event/globalization factor: cf. Terrenato (1998); and Versluys (2014) [[DOI:10.1017/S1380203814000038]].

5 For the possibility to apply this terminology to archaeological contexts cf. Hoo (2015) nt. 30, 40. Pitts/Versluys (2015).

6 For the definition of the network of relations ("interconnectedness") of the human societies as global level cf. Attema (2010) 8.

7 For the chronology of this source: cf. Abbolito Simonetti (1995) 13. 55 f.

8 Cf. Hall (2012) 351.

can coexist within a group. This is the case, e.g., in multicultural communities,[9] where the collective identity is the result of a deal struck between a plurality of sub-identities present in the communities. The local cultural identities further present an internal complexity, linked to the social segmentation of the community and to the possibility of fragmented individual identities[10] or multiple identities.[11] The complexity of these layers and of their stratification is not fully assessable through the archaeological and epigraphic sources.[12] Individual identities in particular are but sporadically documented. For these reasons I decided to use the collective identities of the local communities as the smallest unit of my research, which can be determined by identifying the most frequently shared values and behaviors, expressed, for instance, in funerary ritual, in imagery and in the choices related to material culture.[13]

3. Introducing the case study: Hellenistic Northern Etruria

The Hellenistic Northern Etruscan communities (fig. 1) have been chosen here, because the related data set shows some very interesting peculiarities. In the Hellenistic period, this region presents a complex mesh of different patterns. The increase in personal mobility generated more opportunities for cultural contacts. The local communities adopted new customs and lifestyles without giving up their Etruscan cultural background. These "multicultural"[14] societies switch slowly, at the end of the 2nd century BCE, to societies of partial identities,[15] where the Etruscan language and traditions became confined to the private sphere, while the Latin language and Roman institutions dominated public life.[16] These preconditions (complexity, rich dataset of archaeological and epigraphic sources related to personal mobility, attested changes of behavior), within a restricted geographic area, make the case study ideally suited to detecting the evolution of the perception and construction of local collective identities.

9 To describe these communities the neutral terms of "composite identities" cf. Wallace-Hadrill (2011) or "Mixed Identities" cf. D'Ercole (2011) are often adopted.

10 On the fragmentation of personal identities as a consequence of globalization cf. Bradley (2007).

11 Multiple Identity in archaeological context cf. Blake (1999), 35. For a review of the studies on the subject cf. Luhrmann (2001).

12 Especially because the tombs with grave goods represent a limited group within the real societies cf. Berrendonner (2007).

13 For the role played by material culture in the construction of collective identity (an image that a group constructs to allow the identification of its members) cf. Versluys (2013) 431 with further bibliography. On the Italic Identities during the Romanization and the possibility to individuate assertion of local distinctiveness: Stek (2013) 348–352.

14 Eriksen (2015) 28 f.

15 For the social function of the partial identities (Teilidentitäten) cf. Straus (2002) 263–169.

16 Benelli (2009); Benelli (2012); Maggiani (2014).

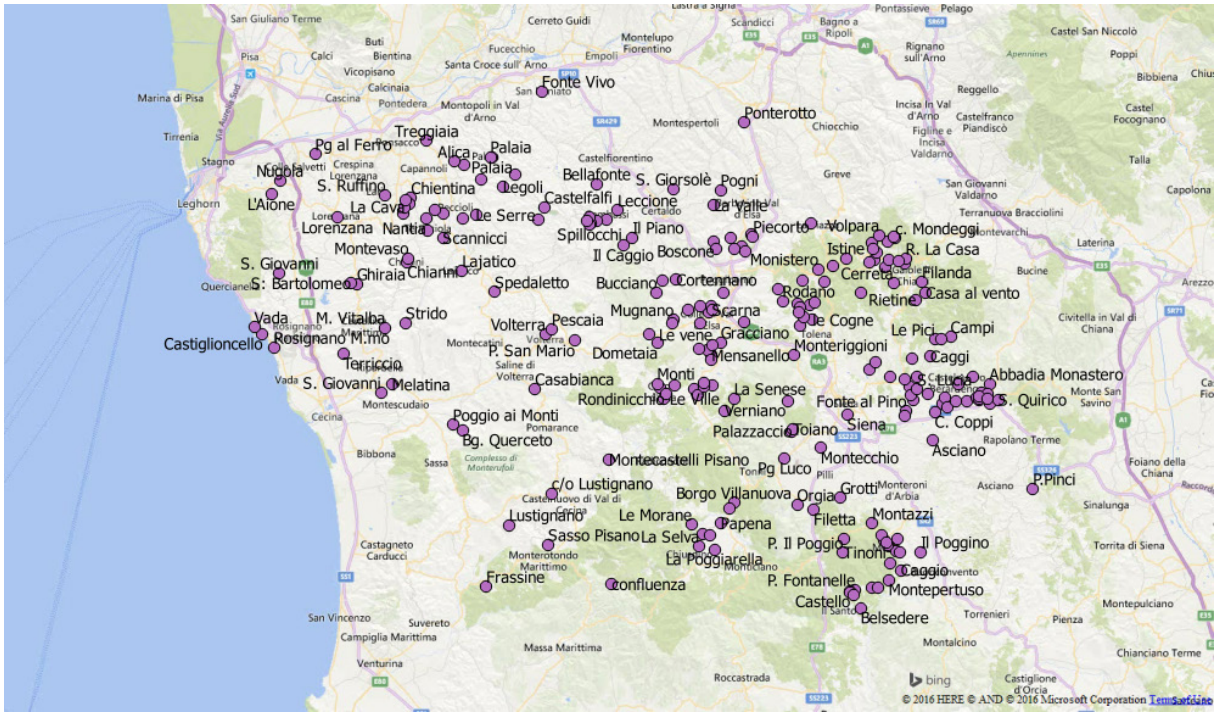

Figure 1: The attested archaeological places in the territory of Volterra during the Punic Wars (QGIS 2.12.3, using Bing Maps).

Naturally, the case study also has its limits. As the study of ancient society can rarely draw upon complete datasets, it may be helpful to present the principal gaps in the extant sources and to discuss how one can accommodate the challenges of an incomplete dataset and to what degree this affects the analysis. The archaeological sources (geographic position, buildings, material culture) are related to settlements and to necropoleis. The position of the settlements in space and their chronology are mapped through survey archaeology.[17] The surveys allow for excellent spatial analysis, to understand the occupation of the landscape and its modalities (dispersed settlements, cities, etc.). The chronology is frequently determined simply by collecting pottery shards and other materials on the surface layer. The consequence is a partial knowledge of the layers, which were obliterated by the most recent phase of activity. Nevertheless, it seems possible to detect some trends and patterns of occupation in Hellenistic northern Etruria, because the occupation of the landscape is well mapped for the whole Hellenistic period and this coverage allows one to analyze the connectivity of the settlements. A complete dataset for the material culture within the settlements is not yet available and exists only for the largest cities. The necropoleis, however, offer a very rich documentation of the material culture. Their geographic relation to some settlements frequently allows one to reconstruct also the material culture of the communities. In some cases, settlements are still unknown but the material culture of the local community and their geographic positions are already documented by their necropoleis. For this reason, the smallest unit of research is the local community and not the settlement. Unfortunately, analysis of the material culture of the necropoleis is hampered by the fact that many of them were excavated between the 18th and the beginning of the 20th century; consequently, a part of the contextual data was not collected in conformity with the current scientific standards. The history of the research biases the data set, especially regarding the proportion of the collected materials. For this reason, no quantitative analysis of the data will be conducted, at least for the moment; only the presence/absence of some classes

17 Cherici (1987); Cherici (1992); Torelli (1992); Valenti (1995); Cambi (1996); Valenti (1999); Campana (2001); Nardini (2001); Felici (2004); Botarelli (2005); Cenni (2007); Paolucci (2008); Acconcia (2012).

of materials is taken into consideration. Because the interest is here mainly in assessing the exchange of information and the cultural and economic contacts between communities, it will be probably necessary to choose a threshold to establish the presence/absence of some aspects of the material culture in the local communities. This threshold allows one to weight the impact of the quantity on the exchange of information, assuming that repeated and more numerous contacts are able to share more or to consolidate the shared information[18].

A large amount of data is finally available from epigraphic sources; in particular, the data related to the marriage politics and to the circulation of people between communities offer an appropriate set for network analysis. The frequent use of matronymics and patronymics, as well as gamonymics[19] in the funerary inscriptions, often allows one to trace the arrangements between families of the upper classes of the local communities, especially in the early and middle Hellenistic period, as well as the migration of people from other Italic regions, as well as Northern Africa and Greece.

These data are very accurate, but cannot illuminate the entire area of the case study: They are available exclusively in a land-locked sub-region, the area around Chiusi, Perugia and Volterra. In the coastal communities there are far fewer inscriptions, because of the differences in funerary customs: inscriptions were set up here only in exceptional cases. The consequence is a sub-regional limitation of the network of mobility. Nevertheless it seems useful to apply SNA in the sub-regions, where data are available.

4. The local dimension: Identifying identity markers

In order to be able to detect local cultural identities one needs to select specific parameters that can trace markers of these identities. Doing so is quite difficult in the Hellenistic period, because of the wide diffusion of koinè elements in the material culture: Once the local productions have been identified, the presence of objects or ideas which do not belong to these productions (outsiders) can be explained as consequences of economic transaction or of cultural contact. The use of objects is frequently not enough to identify the cultural identity of the owners of the objects, nor of their community.

I therefore developed four complex parameters in order to distinguish markers of identity: 1. the association of objects in context; 2. the existence of diacritical patterns in the material culture; 3. the assignment of the semantic value of objects in the social and religious rites of the communities; 4. and last, but not least, the shift in the use of language (fig. 2).

18 The repetition of the message as a factor able to effect the impact of the communication has been studied in Social Psychology: cf. Chaiken/Trope (1999) 307 f.

19 In form of the husband's or wife's name.

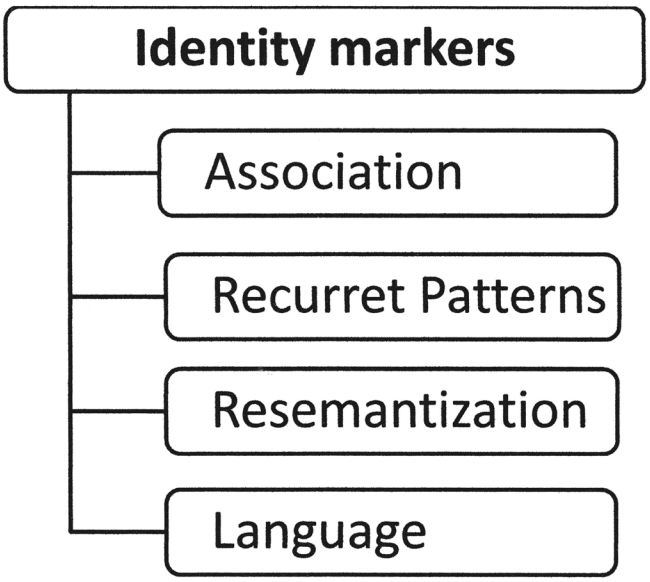

Figure 2: Parameters to distinguish Identity Markers.

The first parameter, the association within the grave goods, finds its application at micro level, in the contextual association in single tombs or in groups of tombs in the necropoleis of local communities.

Figure 3: Campanian Dinos and cinerary urn in the Tomb of Fastia Aemilia Praesenti in Perugia (Cipollone (2009) 155).

The second parameter, the individuation of diacritical patterns in the material culture, allows one to cluster specific cultural aspects of local communities even during the period of homologation of the grave goods and productions due to the Hellenistic koinè.[20] The individuation of local peculiarity and of general patterns is useful as it helps specify the degree to which local communities differ from one another and, at the same time, to individuate single divergent cases within a local community: The number of divergent cases is higher in communities with multicultural or composite identities (Inclusion Communities), lower in communities with univocal or homogeneous cultural identity (Exclusion Communities).[21]
The third parameter used to individuate markers of identity is the change of meaning. A change of meaning is constituted by the semantic editing of an object or class of objects, which has been transmitted from one cultural background to another. Changes of meaning in the funerary context often serve to distance the object's original meaning and function and to place it in a symbolic relation with a new constructed cultural identity.[22]
The fourth parameter to detect markers of local cultural identity is the choice of language,[23] which is one of the parameters most commonly adopted to identify ancient culture groups.[24]

5. Some examples of identity markers in Hellenistic Northern Etruria

The following examples show the detection of the identity markers by means of the proposed parameters, within the selected case study.
The first parameter, the association of grave-goods, has been applied in a tomb of the necropolis of Santa Caterina in Perugia (fig. 3).[25] Here in the family tomb of the *gens Praesnti*, a cinerary urn of the noble woman *Hastia Aemilia Praesenti* was deposed. The cinerary case was decorated with a relief showing a mythological scene: The conversation between Odysseus and Circe, set in Campania. The assemblage of grave goods included earrings, imitations of south-Italian models, and a bronze mirror. These objects can be dated to the 1st half of the 1st century BCE. However, the tomb contained also a second cinerary urn, dated to the 5th century BCE, which can be attributed to an ancestor of *Hastia Aemilia*. This vase, a dinos produced in Campania, probably indicates that the family was of Campanian origin. Therefore, its translation into the new grave may have had a strong symbolic significance. In this case-study the association between the old Campanian vase, the iconography of the recent cinerary case with its allusion to the Campanian landscape, as well as the earrings which imitate a south-Italian model, constitute a semantic association with a strong allusion to a Campanian identity and can be assumed as a document of a complex identity in a family, whose members are writing in Latin, using an Etruscan cinerary urn and carrying an Etruscan name (*Praesnti*).[26]

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20 Cf. Stefanie Martin-Kilcher's research on the Late Republican necropolis of the Maggiore Lake: Martin-Kilcher (1998), as well as Milinda Hoo's research on Hellenistic Ai-Khanum (English version forthcoming): Hoo (2015).

21 Cf. Bruhn (2011); also Allman (2013).

22 Cf. Da Vela (2016) with bibliography.

23 The central importance of language in constructing cultural identity has been analysed in linguistic anthropology: cf. Bucholtz/Hall (2004) 369–394.

24 Wallace-Hadrill (2011) 422; D'Ercole (2011) 438–442.

25 Reconstruction of the grave goods association cf. Benassai (2002).

26 Iozzo (2011).

The second parameter, the detection of specific patterns in the funerary rituals, can for instance be applied to the coastal necropolis of Castiglioncello.[27] Here it has been possible to assume, for the Hellenistic period, a presence of Ligurian refugees and migrants, marked by their characteristic grave goods of weapons and La-Tène fibulae (fig. 4).[28]

Figure 4: Tomb 7/97 of the necropolis of Castiglioncello with Ligurian markers of identity (Aut MIBACT/Soprintendenza Pisa, prot. 9606; 28.13.10/26).

27 Gambogi/Palladino (1999).

28 Maggiani (2013) 241–243.

The third parameter used to detect markers of identity, resemantization can be exemplified in the use of commercial amphorae as cinerary urns in the necropoleis of the Apuanic Ligurian and in the Northern Etruscan necropoleis situated in contact zones with Liguria. The co-presence of different burial customs in these Northern Etruscan centers is an example of cohabitation of differently connoted groups within the local communities. In the late apuanic Ligurian culture, between the end of the 3rd century and the beginning of the 2nd century BCE, several burials re-used cut Greco-italic *amphorae* as containers of the cinerary olla, while in Etruria, Greco-italic amphorae were deposed as an element of the banquet set, relating to the consumption of wine in the symposium (fig. 5).

Figure 5: Apuanic Ligurian burials showing amphorae used as containers of the cinerary vase. Museo Archeologico Nazionale di Villa Guinigi, Lucca, Tomb from Ponticello di Marlia, 170–130 BCE (Da Vela (2016) fig. 7, 38).

The fourth parameter is the use of the language. In the selected case study, not just the language is an expression of cultural identity, but the choice of alphabet as well.[29] The alphabet adopted can be a local Etruscan alphabet, a Latin alphabet or a mixture of the two. The opportunity to use parameter is exemplified particularly well by the necropolis of Balena, near San Casciano dei Bagni, in the Province of Siena,[30] which was located in a frontier zone between the territories of the Etruscan cities of Chiusi and Orvieto. Here the integration of new elements by the local population is well documented in the late Hellenistic loculi-tombs of the necropolis. The grave goods were deposed in burial recesses, carved into the local sandstone from a shared dromos. Each burial recess was closed by a funerary tile, on which a funerary inscription was incised (fig. 6). In every one of the 6 recently excavated and published dromoi, the inscriptions show

29 For the value of the choice of the alphabet in function of the cultural identity cf. Prost (2002) 319–324.

30 Salvini (2014).

use of both the Etruscan and Latin language and alphabet, as well as mixtures of the two, all in different combinations. It emerges that the choice of alphabet and language expressed the intention of the family of the deceased to define their cultural identity as Etruscan or Roman. The pattern shows a high degree of variability over time, as attested by the grave goods in the burial recesses, and as regards the origins of the family, attested by the name. The typology of the grave goods is standardized (mainly unguentaria, lagynoi and strigiles). In the burial recesses three types of cinerary urns were deposed: Etruscan urns of Chiusi, with a lid shaped like a banqueter or sleeper, bell urns, exclusive to Chiusi and the surrounding area, and ollae, covered with a dish or bowl, reversed on the top. When the grave goods and the inscribed tile were preserved in association, it has been possible to determine a concordance between the type of the urn, the origin of the deceased and the linguistic choices. So e.g. the traditional form of the cinerary case was normally associated with local families, which are well attested in the main center of Chiusi, and had inscriptions written in Etruscan language and alphabet, while cinerary ollae were associated with Umbrian or Italic names and inscriptions in Latin language. In this case the correlation between the shift in the use of the Latin over time and the presence of new elements in the population is very remarkable. The necropolis' main period of use is between 175 and 40 BCE. The oldest grave goods relate to people with Italic names and were sealed by a tile bearing inscriptions in Etruscan alphabet and Latin language. The new elements of the population seem to have sought to adapt to the local identities and it is also possible that they let local artisans or intellectuals write their names, which they themselves are able to spell, but not write. In the following years these families, as well as the families of Etruscan origin, begin to write in the Latin alphabet.[31] Another important piece of information, which can be deduced from this social context is that the buried people weren't relatives or members of the same family. This is a big break in the Etruscan funerary habitus. The study of the architecture and form of the grave and their confrontations with similar contexts around Lake Trasimene has allowed us to trace an evolution in the agricultural communities of central Etruria after the Punic Wars and to attribute the necropolis to recently founded rural villages, where local elements and migrants were living together and building a network of new local communities which initially possessed a multicultural identity. This identity was slowly transformed into a new, shared and uniform identity, perceivable in the adoption of the Latin language.

Figure 6: Inscribed funerary tile in the Necropolis of Balena (San Casciano dei Bagni, Siena) (from: Salvini (2014) fig. 3, Tav. VI, 202).

31 Maggiani (2013) 56.

6. The global dimension: Constructing a multilevel network

The methodology chosen for this part of the study is Social Network Analysis (SNA), as it allows for the analysis of complex systems without losing details relating to their individual components.[32] The project contemplates the construction of a longitudinal multilevel network to analyze different kinds of connections between local communities.[33] 'Longitudinal' here means that the network is articulated in different time segments, which are compared to analyze the evolution of the relationships over time.[34] The smallest units of my network (nodes) are the local communities. The agents of the connections between communities are people: I assume that, on average, people living in the same place have a high frequency of contacts and consequently a high level of shared information, wishes and points of views. The connections between communities, established by the people living in them, are the ties or edges of the network. Many different human interactions and forms of contact allow information to be shared, with different levels of intensity, ranging from the superficial to the deepest level and are able to influence the perception of identity. I selected 7 different kinds of relationships, or relational ties, which, in my opinion, influence the question of the identity. I build a network inside my geographic area for each one of these ties (fig. 7): 1- connectivity, i.e. the possibility to move in the geographical space between communities; 2- mobility as the actual movement of people between two communities; 3- exchange of material goods, via trade, gift exchange, etc.; 4- exchange of immaterial goods as cultural transmission of ideas, lifestyles, images; 5- political association between communities, documented through literary sources; 6- interaction between people living in different communities, visible in agreements to buy and sell land; 7- religious behavior, i.e. shared rituals, cults and cult places.

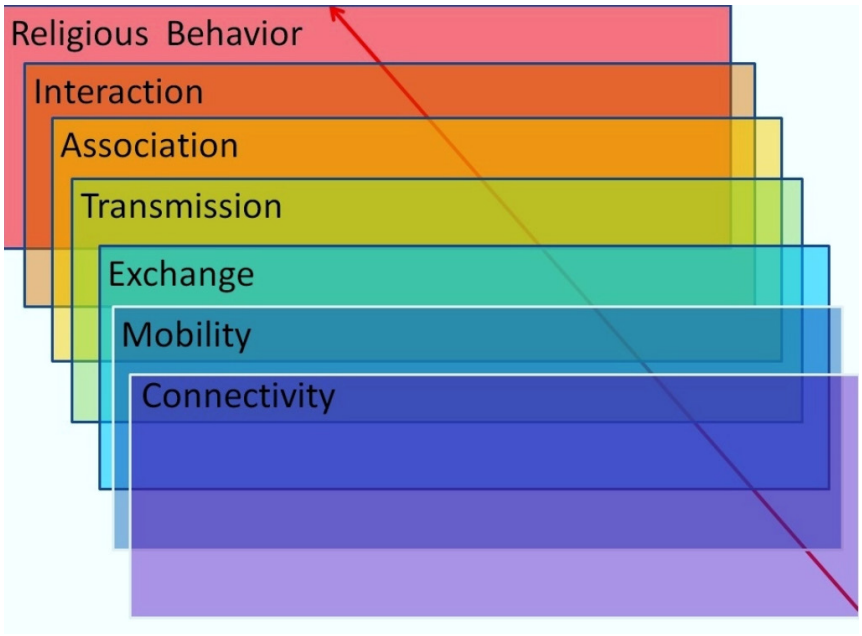

Figure 7: Plan of a Multilevel network.

32 Cf. Knappet (2013) 3–14.

33 Multi-level intended here as multi-tie network: cf. Mol (2014) 253 f.

34 For the application of the longitudinal network in archaeology: cf. Mizoguchi (2013).

7. Some examples of the network of connectivity between Northern Etruscan local communities

I present some graphs of the SNA of a part of my dataset, for the tie connectivity.[35] Networks of connectivity can be constructed on a number of different criteria. I have confronted three of these: a) empirical b) k-nearest neighbors 3) linear distance with a threshold of proximity.

a) The connections are established when people of a community A can reach a community B without having to cross a third community C. The presence/absence matrix is symmetrical and the graph undirected, because I assumed a reciprocate probability that people would travel from A to B and from B to A.[36] The routes are empirically established, through personal knowledge of the topography and of the possible routes. This method could be however biased by different factors, for instance by difference in the perception of practicable/impracticable routes in the past (fig. 8).

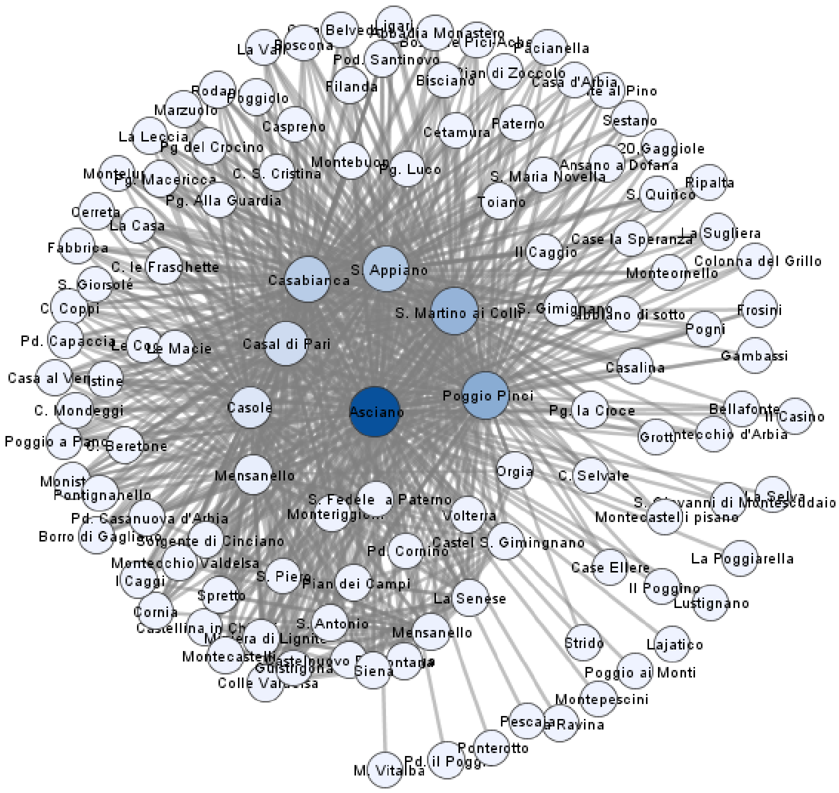

Figure 8: Graph of the connectivity, criterion (a) applied to a partial network in the territory of Volterra (Processed with the Software Visone 2.9.2).

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35 The complete dataset is composed of ca. 500 communities, distinguished by elaborating the survey-data for three time periods (350–264 BCE; 264–146 BCE; 146–80 BCE). I cannot here present the mobility network, because the database is still in development: I have collected a database of 2300 Hellenistic funerary inscriptions for the territory of Chiusi, but the presentation of the network for this area is still in progress. The prosopographic network seems one of the most promising for my case study and has been productively used in other research (as these of Bastian Still for his PhD at the University of Leiden); nevertheless the high complexity and the level of documentation of the intermarriages between communities required an accurate evaluation of the reliability of the sources: each inscription has to be divided into components in order to understand the direction of the movement of people between communities, the chronology of the inscription has to be determined, and finally the possibility weighed that the migration of people could have preceded the real appearance of the name in the grave. The preexisting studies of Enrico Benelli: Benelli (2009); Benelli (2012) and Adriano Maggiani: Maggiani (2014) are very valuable in that they help me collect and evaluate data for the network set.

36 For the moment, I did not consider any hierarchy between communities in the geographic network. After this first elaboration, I will try to insert an “attractiveness index” of the biggest communities, taking in consideration the dimension and the economic role of them.

b) The second method is based on the choice of a k-number of nearest neighbours. I have chosen to select the three nearest.[37] A is connected with only three communities B, C, and D, which are those closest to community A. The distance is established on the linear proximity. The presence/absence matrix is symmetrical and the graph undirected (fig. 9).

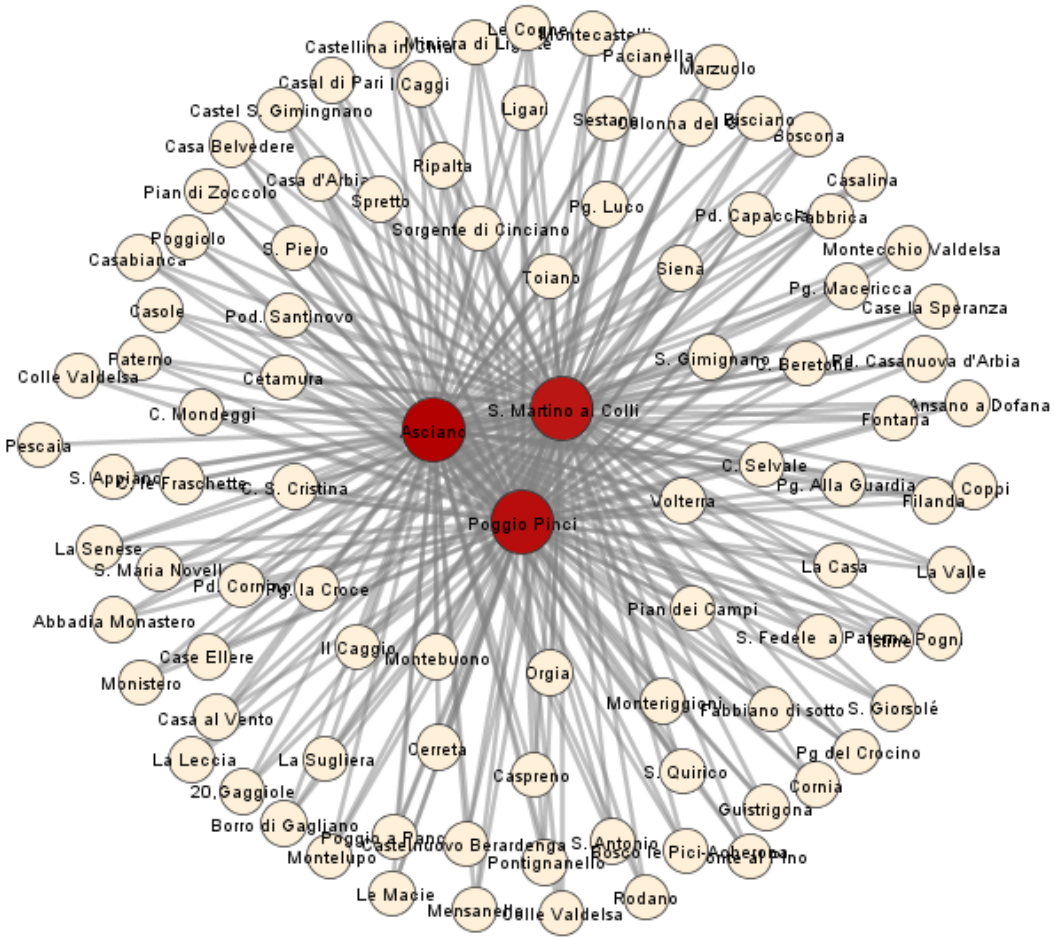

Figure 9: Graph of the connectivity, criterion (b) applied to a partial network in the territory of Volterra (Processed with the Software Visone 2.9.2).

37 Nearest neighbor cf. River/Evans (2013) 107.

c) I inserted in the matrix the air-line distances between communities and I have arbitrary chosen a maximum distance (10 km) which allows one to consider two communities connected:[38] A is connected with all communities contained in a circle with a radius of 10 km and centered on A. The presence/absence matrix is symmetrical and the graph undirected (fig. 10).

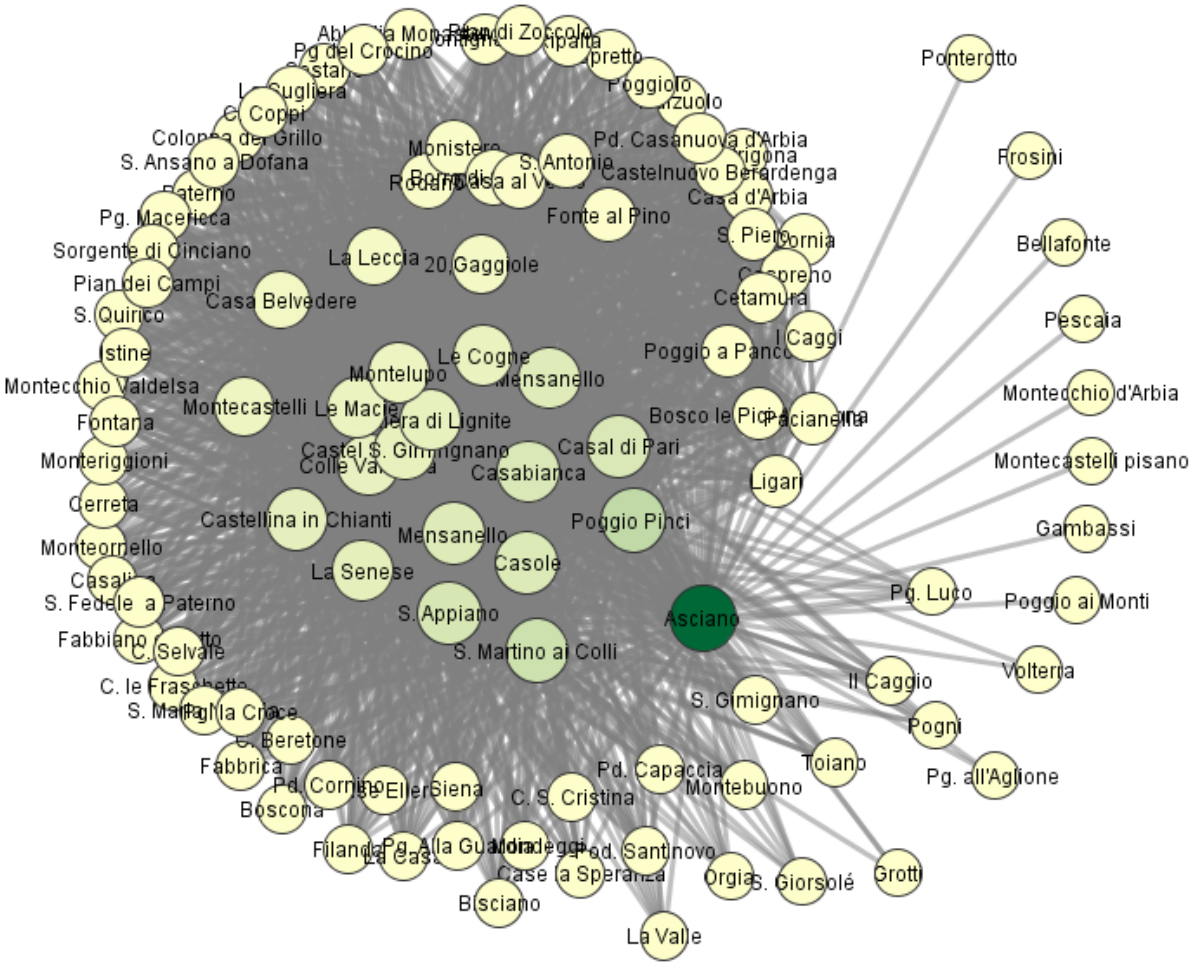

Figure 10: Graph of the connectivity, criterion (c) applied to a partial network in the territory of Volterra (Processed with the Software Visone 2.9.2).

Some observations can be advanced by confronting these three different criteria. The structures of the whole networks obtained with the 1st (fig. 8) and 3rd (fig. 10) criterion are similar, while the network dependent on the 2nd criterion, gives a different structure (fig. 9). The comparison of the ranking of the centrality measurements shows a higher variability in the detection of the role of the communities in the 3rd network (Tab. 1). In conclusion, the 1st and the 3rd criteria are more suitable for the aim of the project, both allowing to underline the role and the position of the communities in the network. The 3rd criterion is furthermore more appropriate for the conditions of the dataset, because in absence of conflict, the communication between two connected communities is not hindered by the presence of other communities on the path between them.

38 For the Geographic Threshold Criterion (Relative Neighborhood Network) cf. Jiménez-Badillo (2012).

Site Name	**1-clos. %**	**2-clos. %**	**3-clos. %**	**1-betw.%**	**2-betw.%**	**3-betw.%**
Asciano	38.541	35.155	30.48	1.596	1.992	1.515
Poggio Pinci	16.883	32.96	7.523	1.446	1.971	1.383
S. Martino ai Colli	14.992	31.885	5.869	1.413	1.951	1.383
S. Appiano	10.196	0	4.739	1.332	1.012	1.371
Casabianca	9.156	0	4.457	1.303	1.012	1.348
Casal di Pari	5.489	0	4.457	1.186	1.012	1.337
Casole	2.928	0	4.1	1.082	1.012	1.361
Mensanello	1.099	0	3.855	0.979	1.012	1.348
La Senese	0.143	0	3.778	0.903	1.012	1.315

8. How to relate the change in the perception of the identities with the change in the network?

Since the elaboration of the network and the detection and collection of the identity-markers is still in progress, I am, for now, presenting only a number of methodological propositions as to how one might relate the transformation of the connections between settlements with changes in the perception of cultural identities within them.

I propose to apply two centrality measurements of the role of the nodes in the network: the closeness centrality, which shows the role of a settlement in receiving and transmitting information (fig. 11) and the betweenness centrality, which shows the role of a community in brokering information between the other communities (fig. 12). These measurements are dependent on the number and weight (strength) of their ties.

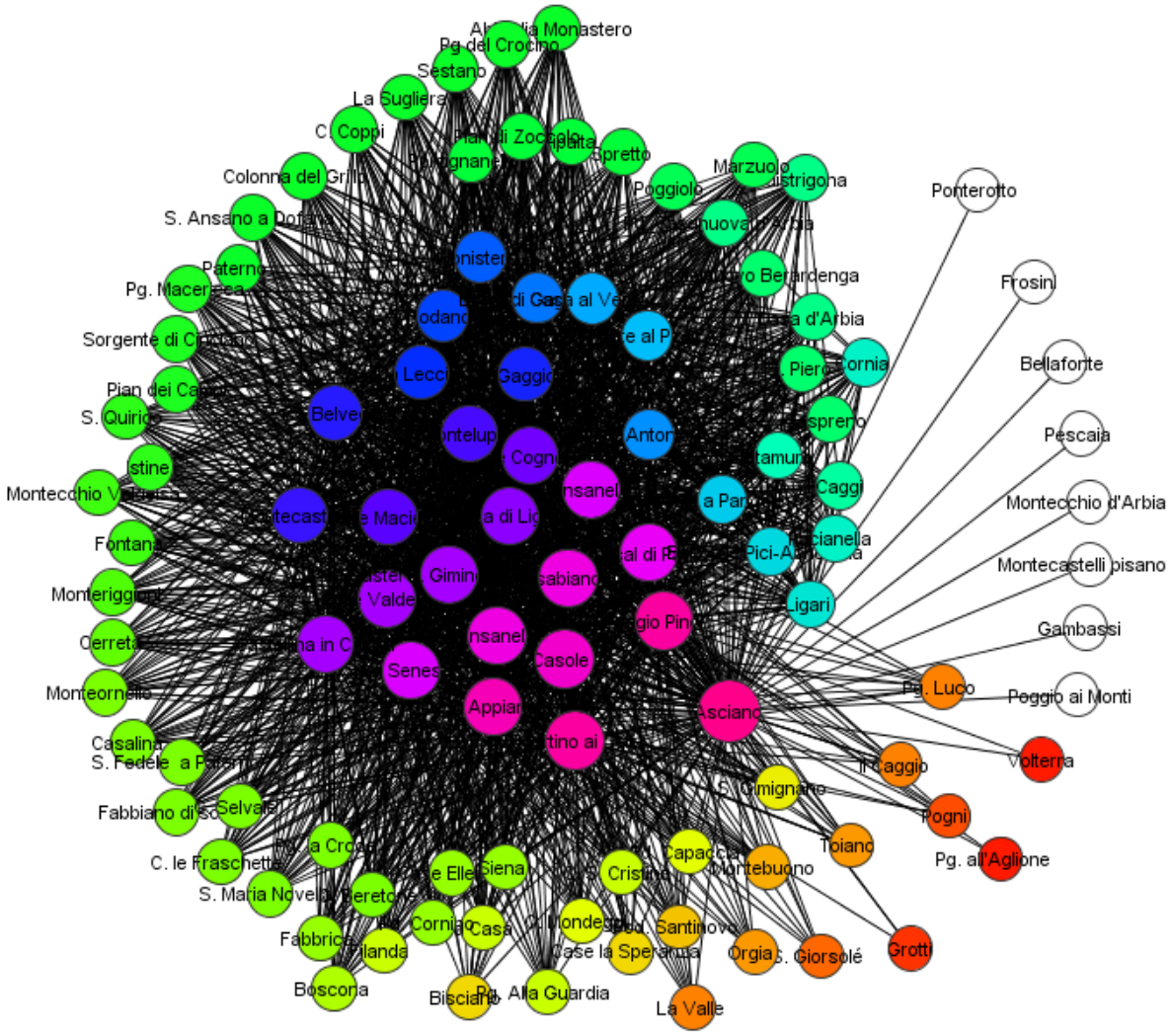

Figure 11: Graph of the connectivity of the 2nd chronological Phase. Closeness Centrality (Processed with the Software Visone 2.9.2).

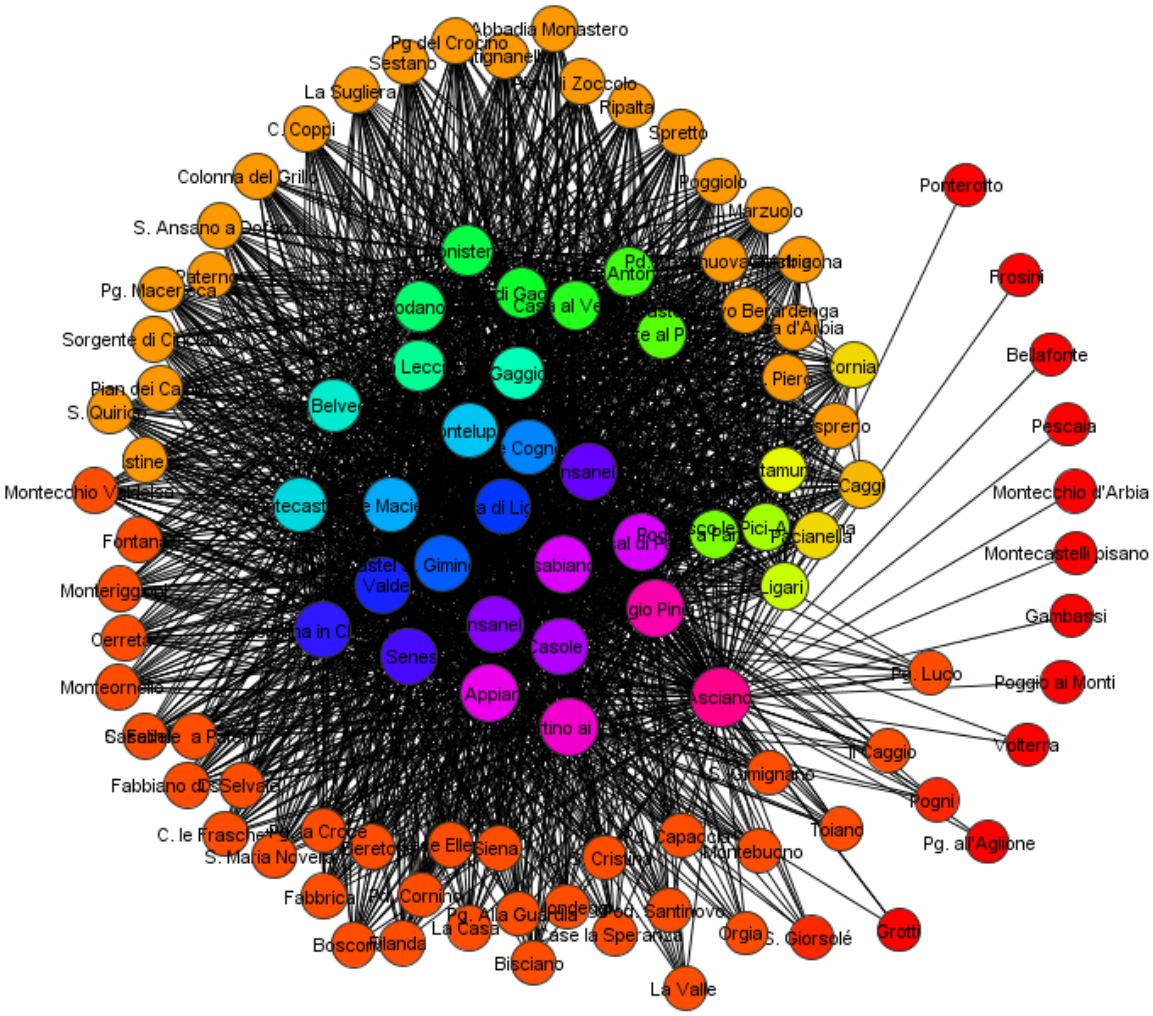

Figure 12: Graph of the connectivity of the 2nd chronological Phase. Betweenness Centrality (Processed with the Software Visone 2.9.2).

These measurements are more accurate in the network obtained with the 3rd criterion (figg. 10–12), which presents an higher number of connections.

The transformation of the role of the communities is then empirically compared with the transformation of the markers of the cultural identity within them (fig. 13).

This comparison allows one to detect recurrent patterns of interaction, e.g. if a settlement's greater capacity to receive and transmit information of correlates with evidence of cohesion or fragmentation in the perception of the cultural identities of the inhabitants. Since the individuation of recurrent patterns requires a complete analysis of the data, it will not be possible to answer these research questions before the research project concludes.

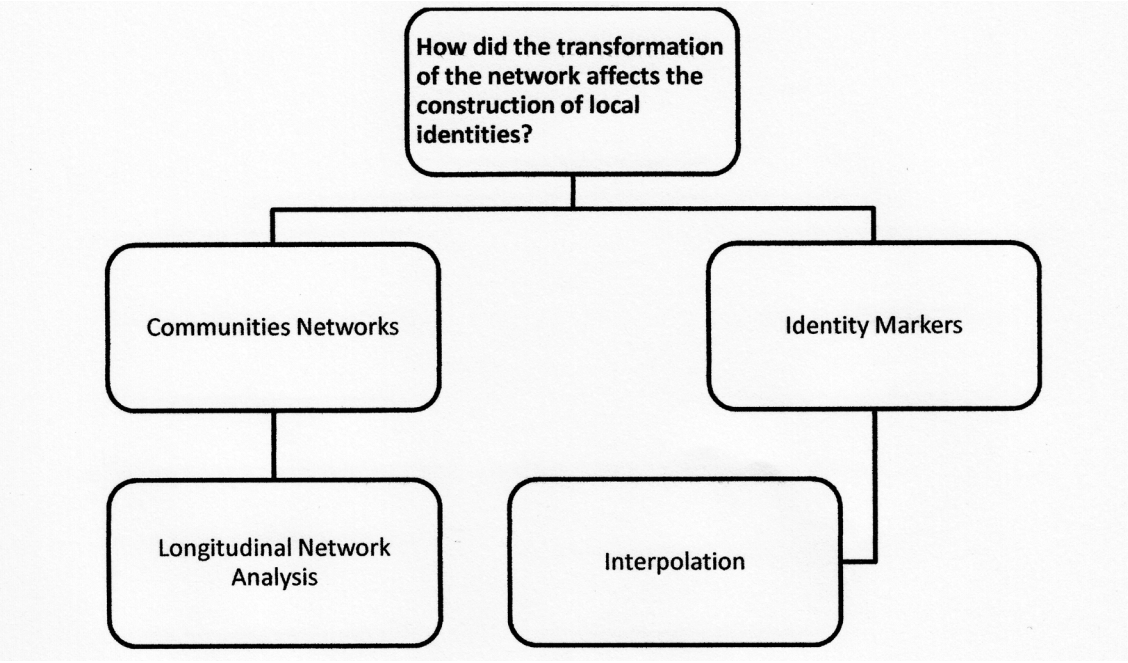

Figure 13: Diagram of intersection of network analysis and identity markers.

In a perspective of exploratory network analysis,[39] it could be possible to compare the changes within the network of the Etruscan communities to the evolution of many random networks, generated on specific parameters, to avoid the bias of expectation in the analysis of the coincidence between transformations of the real network and evolution of their properties. I currently do not expect to incorporate such experiments into my research. Instead, I adopt as an element of control the recurrences of similar patterns of reactions or responses to the transformation of the network of the identities (properties of the nodes) within the local communities (nodes).

9. Synthesis

My aim is to relate the impact of the evolution of the social network of the local communities to the perception of cultural identity within them. In the specific case study of Hellenistic Northern Etruria I aim to understand and describe whether and how the dynamic of Romanization in the social network of the local communities was able to affect the perception of the cultural identity of their components. In particular, I wish to discover how the transformation of multicultural communities into communities of partial identities works. To answer this question I propose an integration of two different methodologies: the detection of identity markers of the local communities by applying a set of parameters to archaeological and epigraphic sources, and the description and analysis of social networks of local communities through Social Network Analysis. The diachronic variations of the role of the local communities within the network are then related to the markers of identity collected within them. The identification of recurrent patterns of response by the local cultural identities to the evolutions of their network offers a new way of reading the impact of global political and economic challenges on the life of the local communities.

39 Knappett (2013) 8.

10. Bibliography

Acconcia (2012): V. Acconcia, “Paesaggi etruschi in terra di Siena. L’agro tra Volterra e Chiusi dall’età del Ferro all’età romana. British Archaeological Report, BARInternational 2422, Oxford.

Allman (2013): D. Allman, “The Sociology of Social Inclusion”, Open Sage 3.1, 1–16. DOI:10.1177/2158244012471957 (08.01.2013)

Attema (2010): P. Attema, “Regional Pathways to Complexity”, in: Peter Attema, Gert J. Burgers, Martijn van Leusen (Eds.) Settlement and Land-Use Dynamics in Early Italy from the Bronze Age to the Republican Period. Amsterdam Archaeological Studies 15, Amsterdam.

Abbolito Simonetti (1995): G. Abbolito Simonetti, Venerabile Beda. Esposizione e revisione degli Atti degli Apostoli, Roma.

Benassai (2002): R. Benassai, "Un cinerario campano a Perugia", Annali della Fondazione per il Museo Claudio Faina 9, 525–540.

Benelli (2009): E. Benelli, "La società chiusina tra la guerra annibalica e l’età di Augusto. Osservazioni archeologiche ed epigrafiche", Ostraka. Rivista di antichità 18, 303–322.

Benelli (2012): E. Benelli, “Chiusi da città etrusca a municipio romano”, in: Simona Marchesini (Ed.), Matrimoni misti e identità in cambiamento, Trento, 103–112.

Berrendonner (2007): C. Berrendonner, "La società di Chiusi ellenistica e la sua immagine. Il contributo delle necropoli alla conoscenza delle strutture sociali", Etruscan Studies 10, 67–78.

NIV: The Holy Bible. New International Version. Biblica. Biblica Inc. (2011).

Blake (1999): E. Blake, "Identity-Mapping in the Sardinian Bronze Age", European Journal of Archaeology 2.1, 35–55.

Botarelli (2005): L. Botarelli, Carta Archeologica della Provincia di Siena VII. Radicofani. Botarelli, Lucia, Siena.

Bradley (2007): G. J. Bradley, "Ancient Italy. Regions without Boundaries", in: Guy J. Bradley, Elena Isayev u. Corinna Riva (Eds.), Romanization: the End of Peoples of Italy?, Exeter, 295–322.

Bruhn (2011): J. C. Bruhn, The Sociology of Community Connections, London.

Bucholtz/Hall 2004: M. Bucholtz u. K. Hall, “Language and Identity”, in: Alessandro Duranti (Ed.), A Companion to Linguistic Anthropology, Oxford, 369–394.

Cambi (1996): F. Cambi, Carta Archeologica della Provincia di Siena II. Amiata (Abbadia San Salvatore), Siena.

Campana (2001): S. Campana, Carta Archeologica della Provincia di Siena V. Murlo, Siena.

Cenni (2007): F. Cenni, Carta Archeologica della Provincia di Siena VIII. Buonconvento, Siena.

Chaiken/Trope 1999: S. Chaiken u. Y. Trope, Dual-Process Theory in Social Psychology, London.

Cherici (1987): A. Cherici, "Cortona struttura e storia. Materiali per una conoscenza operante della città e del territorio", in: Giancarlo Cataldi (ed.), Materiali per una carta archeologica del territorio cortonese e Materiali per una carta archeologica di Cortona, Arezzo, 141–181.

Cherici (1992): A. Cherici, "L'insediamento antico nel territorio aretino. Carta Archeologica F. 114 II", Rivista di Topografia Antica 2, 23–90.

Cipollone (2009): M. Cipollone, "Necropoli di S. Caterina Vecchia, tomba 6", in: Marco Saioni (ed.), Invito al Museo. percorsi, immagini, materiali del Museo Archeologico Nazionale dell'Umbria, Perugia, 155 f.

D'Ercole (2011): M. C. D'Ercole, "Sharing New Worlds. Mixed Identities around the Adriatic (Sixth to Fourth Centuries B.C.E.)", in: Erich S. Gruen, Cultural Identity. In the Ancient Mediterranean, Los Angeles), 428–451.

Da Vela (2016): R. Da Vela, "Cultural Transmission and Semantic Change of Ceramic Forms in Grave Goods of Hellenistic Etruria", Distant Worlds Journal 1, 27–54.

Felici (2004): C. Felici, Carta Archeologica della Provincia di Siena VI. Pienza, Siena.

Gambogi/Palladino (1999): P. Gambogi u. S. Palladino, Castiglioncello. La necropoli ritrovata. Cento anni di Scoperte e Scavi (1896–1897), Rosignano.

Hall (2012): J. M. Hall, "The Creation and the Expression of Identity. The Greek World", in: Susan E. Alcock u. Robin Obsborne (eds.), Classical Archaeology", Chichester2, 350–367.

Hoo (2015): M. Hoo, "Maanvrouwe aan de Oxus: Baktrisch Ai Khanum als casus voor globalisering in de Oudheid", Tijdschrift voor Mediterrane Archeologie 54, 34–40.

Eriksen (2015): T. H. Eriksen, "Multiculturalism, Anthropology of,", in: Neil J. Smelser u. Paul B. Baltes (Eds.), International Encyclopedia of the Social and Behavioral Sciences, Amsterdam, 28–33.

Iozzo (2011): M. Iozzo, "Il beauty-case di Thana Plecunia", in: Simona Rafanelli u. Paola Spaziani (Eds.), Etruschi. Il privilegio della bellezza", San Sepolcro, 206–209.

Jiménez-Badillo (2012): D. Jiménez-Badillo, "Relative Neighbourhood Networks for Archaeological Analysis", in: Mingquan Zhou, Iza Romanowsa, Zhongke Wu, Pengfei Xu u. Philip Verhagen (Eds.), Revive the Past. Computer Applications and Quantitative Methods in Archaeology (CAA Beijn 12th–16th April 2012), Amsterdam, 370–380.

Knappett (2013): C. Knappett, Network Analysis in Archaeology. New Approaches to regional Interaction. Knappett, Oxford.

Luhrmann (2001): T. M. Luhrmann, "Identity in Anthropology", in: Neil Smelser u. Paul B. Baltes, International Encyclopedia of the Social and Behavioral Sciences, Amsterdam, 7154–7159.

Maggiani (2013): A. Maggiani, "Mercenari liguri?", Annali della Fondazione per il Museo Claudio Faina 20, 233–255.

Maggiani (2014): A. Maggiani, "La necropoli di Balena. Una comunità rurale alla periferia del territorio di Chiusi in età medio e tardo ellenistica (II-I sec. a.C.), in: Monica Salvini (ed.), Etruschi e Romani a San Casciano dei Bagni. Le stanze cassianensi, Rom, 51–57.

Martin-Kilcher (1998): S. Martin-Kilcher, "Gräber der späten Republik und der frühen Kaiserzeit am Lago Maggiore", in: Peter Fasold, Thomas Fischer, Henner von Hesberg u. Marion Witteyer (Eds.) Bestattungsitte und kulturelle Identität. Grabanlagen und Grabbeigaben der frühen römischen Kaiserzeit in Italien und den NOrdwest-Provinzen (Kolloquium in Xanten vom 16. Bis 18. Februar 1995). Xantener Berichte 7, Bonn, 191–252.

Mizoguchi (2013): K. Mizoguchi, "The evolution of prestige good systems: an application of network analysis to the transformation of communication system and their media", in: Carl Knappett (Ed.), Archaeology of interaction: network perspectives on material culture and society, Oxford/New York, 151–180.

Mol 2014: A. A. A. Mol, The connected Caribbean. A socio-material network approach to patterns of homogeneity and diversity in the pre-colonial period. Leiden.

Nardini (2001): A. Nardi, Carta Archeologica della Provincia di Siena IV. Chiusdino, Siena.

Paolucci (2008): G. Paolucci, Carta Archeologica della Provincia di Siena. IX. Chianciano Terme, Siena.

Pitts/Versluys 2015: M. Pitts – M. J. Versluys (Eds.), Globalisation and the Roman World. World History, connectivity and material culture, Cambridge.

Prost (2002): F. Prost, "L'alphabet des Déliens à l'époque archaïque", in: Christel Müller u. Francis Prost (Eds.), Identités et cultures dans le monde méditerranéen antique. Études en honneur de Francis Croissant, Paris, 305–328.

Rivers/Evans (2013): R. Rivers u. T. Evans, "Network Models and Archaeological Spaces", in Andrew Bevan u. Marc Lake (Eds.), Computational Approaches to Archaeological Spaces, Oxon, 99–126.

Salvini (2014): M. Salvini (Ed.), Etruschi e Romani a San Casciano dei Bagni. Le stanze cassianensi, Rom.

Stek (2013): T. D. Stek, "Material Culture, Italic Identities and the Romanization of Italy", in: Jane DeRopse Evans (Ed.), A Companion to the Archaeology of the Roman Republic", Chichester, 337–353.

Straus (2002): F. Straus, Netzwerkanalysen. Gemeindepsychologische Perspektiven für Forschung und Praxis,Wiesbaden.

Terrenato (1998): N. Terrenato, "The Romanization of Italy: global acculturation or cultural bricolage", in: Colin Forcey, John Hawthorne, John u. Robert Witcher (Eds.), Theoretical Roman Archaeology Conference and International Roman Archaeology Conference Notthingam April 1997, Oxford, 20–27.

Terrenato (1998a): N. Terrenato, "Tam Firmum Municipium: The Romanization of Volaterrae and its cultural implications", Jounal of Roman Studies 88, 94–114.

Torelli (1992): M. Torelli (Ed.), Atlante dei siti archeologici della Toscana., Rom.

Valenti (1995): M. Valenti, Carta Archeologica della Provincia di Siena. I. Il Chianti senese Castellina in Chianti, Castelnuovo Berardenga, Gaiole in Chianti, Radda in Chianti, Siena.

Valenti (1999): M. Valenti, Carta Archeologica della Provincia di Siena III . La Valdelsa (Colle Valdelsa, Poggibonsi), Siena.

Versluys (2014): M. J. Versluys, "Understanding objects in motion. An archaeological dialogue on Romanization", Archaeological Dialogues. 20.1, 1–20.
DOI: https://doi.org/10.1017/S1380203814000038 (16.05.2014)

Versluys (2013): M. J. Versluys, "Material Culture and Identity in the Late Roman Republic (c. 200–c. 20)", in: Jane DeRose Evans (Ed.), "A Companion to the Archaeology of the Roman Republic, Chichester, 429–440.

Wallace-Hadrill (2011): A. Wallace-Hadrill, "Pompeian Identities. Between Oscan, Samnite, Greek, Roman and Punic", in: Erich S. Gruen (Ed.), Cultural Identity in the Ancient Mediterranean, Los Angeles, 415–427.

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