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Mobile Pastoralists in Archaic Southern Italy? – The Use of Social and Material Evidence for the Detection of an Ancient Economy

Abstract
This paper seeks to discuss and identify indications for mobile pastoralism in Archaic southern Italy. Because of the perishable and seasonal nature of the material remains and therefore the difficulty of finding direct archaeological evidence for this kind of economy, indirect factors like social organization and social structure derived from cross-cultural ethnological comparisons are taken into account. Instead of solely focusing on the detection of material traces in the shape of objects, the paper tries to identify broadly shared social patterns typical for mobile pastoralism that is not only a special economy but also a way of life, demanding certain structures up into the most basic levels of societal organization. Based on a consideration of different historical and ethnologically observed pastoralist communities, it aims to identify a set of typical features shared by different kinds of mobile pastoralism. These observations will then be compared to the findings of a regional case study from Archaic southern Italy, looking for their possible traces in the archaeological record. Finally, further research prospects are discussed and possibilities for future investigations are highlighted, calling for an augmented attention to the topic in local projects as well as interdisciplinary research.

Keywords: pastoralism, transhumance, ethnoarchaeology, Archaic, southern Italy, Ripacandida

Mobile Hirtengemeinschaften im archaischen Süditalien? Die Nutzung sozialer und materieller Indizien für die Erkennung einer antiken Ökonomie

Zusammenfassung
Der Aufsatz strebt an, Hinweise für mobile Viehhaltung im archaischen Süditalien zu diskutieren und zu identifizieren. Aufgrund des vergänglichen und saisonalen Charakters der materiellen Hinterlassenschaften und somit der Schwierigkeit der Suche nach direkten

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Schlüsselwörter: Pastoralismus, Transhumanz, Ethnoarchäologie, Archaik, Süditalien, Ripacandida

Introduction

Mobile pastoralism is historically well documented in Italy as an important branch of economy and was indeed considered a major element of the longue durée in the work of Fernand Braudel (2001, 120–134). Archaeological investigation into this lifestyle was however very limited in Mediterraneanean archaeology, although several sources suggest that it was practiced already in Archaic times (8th – 5th century BC). The most prominent testimony is the story told by Sophokles in his tragedy „Oedipus the King“ (Soph. Oid. T. 1132–1139): A Theban shepherd was ordered to take the baby prince with him to the summer pastures to expose him to the sun and the beasts. Unable to fulfill the cruel order, he passed the child to a Corinthian shepherd seasonally using the same pastures. This testifies to the practice of transhumance both in the heroic past but almost certainly also in Sophokles’ time.

However, stockbreeding was perceived as a minor branch of economic production. Cattle was mainly regarded as beasts of burden and draught animals, aiding agricultural production, rather than as primary subsistence basis. „The predominant reliance on herded animals such as sheep and cattle for the production of food and other items for domestic consumption and (market) exchange“, i. e. pastoralism (as defined by Mientjes 2004, 161), was ascribed to nomads. But there are several different possibilities in which pastoralism can be performed (Cribb 1991, 15–20). Many shepherds practice agriculture and employ a combination of migration and permanent or seasonally inhabited settlements. One form of mobile pastoralism is transhumance: A seasonal oscillation and the periodic displacement of flocks between two regions of different climate. Different to nomadism, the phase of movement only covers some days or weeks, while the stay at the seasonal grazing area itself lasts weeks or even months (see e. g. Carrier 1932, 8;
Hütteroth 1959, 38; Waldherr 1999, 565). This was the core of the term transhumance as coined by French geographers in the late 18\textsuperscript{th}/early 19\textsuperscript{th} century (Zöbl 1982, 1–2; cf. Hütteroth 1959, 40–41; Rudenko 1969, 16–17) and in this sense it will be used here. Later definitions have incorporated further features on which they show a certain dissent, like the extent of societal mobility and herd ownership.

The main research problem is the poor archaeological visibility of pastoral material culture – the use of seasonal dwellings and the preference for objects made of organic materials (e. g. Cribb 1991, 65–83; Mientjes 2004, 161) stressing the importance of ethnological analogy as a heuristic tool in this matter (Rudenko 1969, 15). The present paper is taking an approach combining social and material evidence in the detection of features connected to mobile pastoralism. A closer look not only at material objects but also societal structures will be taken – e. g. the size and organisation of different social units like households and local and regional communities, their mode of dwelling, as well as their interconnections. Southern Italy, where transhumance is well attested in Roman and post-medieval times, will serve as a case study. Can features be identified suggesting that this way of economy was already practised much earlier in this region? Especially the findings of 7\textsuperscript{th} – 5\textsuperscript{th} century BC necropolis of Ripacandida will be scrutinised.

Pastoral organisation – ethnographic observations and archaeological implications

Ethnographic examples of pastoralist communities from different, but all temperate regions have been analyzed. In the Near and Middle East the (almost) nomadic Basseri tribe and Kazakh/Pashtun societies have been looked at, while in Turkey different smaller, mostly semi-nomadic tribes served as comparisons. The same applies to tribes of the Balkan region like Vlachs and Sarakatsani, while in Italy itself the life and organization of modern transhumant herders were analyzed (fig. 1).

Fig. 1: Map of areas of mobile pastoralists mentioned in the text (author).
Social organisation of pastoral communities

Cross-cultural comparison shows that the core family or household is the basic organizational unit of mobile pastoralists. It mostly consists of a man, his wife and their children (max. ten persons). With or shortly after a son's marriage an independent household is established, forming a new basic unit. This means that these core-family based units are rather short-lived: With the death, senility or illness of the family head the household is likely to dissolve, unless the widow and/or a son that has not yet left the household are able to take over his rôle and maintain it. The former household head will then live with the unit as a minor member. If the household head cannot be replaced, it is likely that the widow and other family members join the household of another person, most likely a relative.

Also the structure of higher authorities is frequently found to be very similar between pastoralist communities: Out of economic and security considerations, the households form herding or camp communities normally consisting of 30 to 50 units. These camps are led by a household head, chosen by his peers and respected as a primus inter pares with rather poor means of force or coercion (cf. Ferdinand 1969, 137), not touching the egalitarian structure of the families. The camp leader acts as the representative of the superior „tribal“ authority that in many cases is not based on kinship ties but on political decision (Barth 1961, 71–77; 85–90; Hüteroth 1959, 210; cf. Mientjes 2010, 157 for very similar observations in 19th/20th century Sardinia).

Some (especially modern transhumant) communities are more hierarchically structured: The care of the flocks is performed by hired shepherds and the people involved in this process are dependent on a single boss and are acting on his behalf (Lombardi 1999). Consequently, when practiced on a large scale with the aim of surplus production, a whole industry is involved, largely connected to the sedentary parts of society (cf. Magno 1999, esp. 52 f.). The more specialised mobile pastoralists are, the more dependent they are on the products of and the interaction with the sedentary population (Veenman 2002, 33).

Material (and archaeological) consequences of pastoral lifeways

Mobility vs. Sedentariness?
Within pastoralist communities different levels of sedentariness exist and the limits between mobility and sedentism are fluid. It ranges from the entire households travelling with all their belongings to only specialized shepherds accompanying the flocks. This has consequences for the type of dwelling: If the whole family moves, non-stable dwellings able to accommodate the household have to be erected and dismantled quickly. Iranian and Turkish pastoralists use tents woven from black goat hair of rectangular shape, covering between some 24–32 m². While the cloth is always resting on wooden poles, some communities use stone foundations or outlines (Barth 1961, 11–12) while in other

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2 e.g. Hüteroth 1959, 72; Salzman 2004, 34; Chang 2008; Mientjes 2004; 2010.
regions the lower part of the tent is closed by a proper wall of stones (fig. 2). Remaining after the breaking of the camp, the latter resemble ruined houses (Hütteroth 1959, 64–67), archaeologically hardly not to be mistaken. The differentiation between permanent and ephemeral in this case is fluid (cf. Cribb 1991, 84–112). Thus, at a seasonally inhabited site the dwellings might archaeologically be reflected by either almost nothing or closely resemble ruins of stable buildings. Specialized (transhumant) shepherd’s huts might be even more ephemeral, sometimes just small sheds or even mobile homes (e.g. Jorge Dias 1969, fig. 7–9; Marinow 1961, fig. 5. 21; cf. Morandi 1999, 202). But also small but permanent huts are documented (e.g. Ferdinand 1969, 134f.).

The degree of sedentariness in pastoralist communities varies as much as the reasons for becoming sedentary. The acquisition of plots of land is a widespread practice to invest surplus means among rich pastoralists. Thus, herd-owners for reasons of commodity become sedentary or semi-sedentary, leaving the daily care for the livestock to servants or hired, often former independent but impoverished shepherds (e.g. Bežković 1969, 99). In transhumant societies, normally women are sedentary, devoting much time to agricultural work. This situation adds much to their social importance: They are creating and maintaining relations with other households during the long absence of the men and are better connected in the direct vicinity, while the shepherds have better external ties (Mientjes 2010, 157–161).
Site features
Small, non-permanent buildings might suggest that a given community consisted of core households. If signs of permanent sedentariness like solid houses or agricultural economy are lacking, and indications of a largely egalitarian structure of the community are present, at least the possibility has to be considered that this community was practicing mobile pastoral economy. But as outlined above, the existence of stone-built constructions does not rule out the possibility of pastoral activities. Chang and Tourtellotte were able to record a number of different visible indications of the Greek *stani* (seasonal transhumant sites; see e.g. Chang/Tourtellotte 1993a, 260 fig. 6) after their abandonment: 1) manure deposits inside a pen, 2) milking stones – large stones in the milking area/pen used as stools by the herders, 3) postholes of upright poles (for the construction of the pen), 4) fireplaces and hearths, 5) structural remains of the herder’s hut, 6) a thin artifact scatter. It is important to notice that it could be observed that most of the functional structures and artifacts were dismantled and taken away upon departure (Chang/Tourtellotte 1993b, 168). In fact, Chang and Koster (1986, 117) have demonstrated that not bones, for a long time considered as the best and main marker of pastoral sites, but dung/manure is always more than abundant on pastoral sites. Therefore, the analysis of microorganisms and phosphor in soil samples promises good results (see esp. Migliavacca et al. 2015). Also geology or geomorphology (soil disturbance/perturbation or consolidation by trampling) might be hints to local stalling of animals.

Fig. 3: Milking corrals in Bulgaria (above) and Italy (below); not to scale (Marinow 1961, fig. 23; Congès/Leguilloux 2012, fig. 5).
At places passed by many pastoral routes or serving as seasonal stopovers of transhumant activities, more specialized architecture might be expected: Facilities for milk processing and shearing (normally before departure from winter pasture) are likely to be built in a more solid way. Such sites should also provide larger grazing areas equipped with some kind of enclosure or fence, safeguarding the animals from beasts and theft as well as from escape – apart from many ethnological observations this is also attested by Roman authors (Varro rust 1,14,1–4; 2,2,9). These installations might go together with corrals with a narrowing neck allowing for the separation of the animals (cf. Congès / Leguilloux 2012). Often a system of corrals, especially erected in the areas of seasonal pasture, is employed by which the flocks are driven into a bottleneck-construction (fig. 3), at its apex open for just one single animal, facilitating the control over milked and yet un-milked animals (Barth 1961, 16). Since in ethnographical examples these corrals were often constructed of light and perishable materials like simple fences or shrubs, this feature might be hardly archaeologically recognizable. The same holds true for facilities guaranteeing fresh water supply like springs or wells, or man-made installations like troughs, vats etc.

Livestock and pastoral production
Not all kinds of animals are equally suited for mobile pastoralism (Rudenko 1969, 17): Horses, sheep and goat are well suited for both nomadism and transhumance, being very frugal and able to find food where other animals cannot. Lambs are able to move only a couple of days after birth. Cattle is not well suited for nomadism but might be kept in transhumant circumstances (e. g. Jorge Dias 1969, 810). Pigs are never kept in mobile circumstances since piglets are not capable of moving for quite some time after birth. Archaeologically, therefore, a presence of especially sheep/goat faeces (see above) and bones might indicate mobile pastoralism, as well as the remains of cattle. The prevalence of pigs can serve as indicator of a sedentary life of at least a part of the local community.

Milk: The processing of fresh milk into more durable products is an important pastoral task. When practiced on a smaller scale, the necessary tools can be entirely made of perishable materials like wood, leather or cloth (fig. 4; cf. Simonjenko 1961, fig. 1–2). This holds good e. g. for the vessels used for heating and/or rocking the milk in cheese and yoghurt production. Unfortunately, hardly any vessel shapes exclusively used in the context of milk processing have been ethnographically recorded. A special spouted jar (čepák) was used in 18th/19th century AD Moravia to collect cream (Kunz 1969, 724 fig. 11). Another rare example might be the wooden, large- or high-handled ladling cups, often richly decorated, from the Carpathians (fig. 5; Kopczyńska-Jaworska 1961, 422 ff.). A feature commonly connected to milk processing are ceramic strainers (for early Italian contexts see recently Di Fraia 2015). Ethnographic observations indicate that at least iron tripods were in modern time common tools in the production of cheese (Mientjes 2004, 179). Copper cauldrons are attested in Moravia, the Carpathians and Transylvania, where they were used for heating the whey and producing cheese.3 Archaeologically well attested in many areas, are they however in modern scholarship mainly expected to be

Fig. 4: A rectangular Esztena-hut and milk-processing tools (1 – fireplace; 2 – chest; 3 – tub; 4 and 4b – cheese trough and its frame; 5 – cheese board; 6 – bench for cheese pressing; 7 – wardrobe; 8 – cauldron; 9 – cooking cauldron; 10 – stirring staff; 11 – milking pail; 12 – straining cloth; Földes 1961b, fig. 5).
used in prestigious drinking activities, mainly based on depictions and literary notes from the Greek area.

**Wool:** The processing of wool or hair is leaving more durable traces in the archaeological record. Wool can be used in different ways: Lamb’s wool makes good felt, sheep’s wool is spun and used in weaving and rope-making. Also goat-hair is spun and woven. Home-weaving is mostly done on the horizontal loom. Traces of the wooden loom beams are however rarely preserved, making its identification almost impossible. Ethnographic observations suggest that textile production was not practiced on a large scale by mobile pastoralists: The bulk of the wool is sold and clothing as well as other textile equipment is mostly bought readymade on the markets, testifying the mutual dependence of sedentary and mobile pastoral communities (e.g. Barth 1961, 8–9). Large quantities of loom-weights on a site would rather speak for sedentary weaving, while spindle-whorls, distaffs or weaving tablets are compatible to a mobile lifestyle. In some modern transhumant societies, spinning is carried out by all ages and genders and one of the most important everyday crafts (fig. 6; e.g. Marinow 1961). In archaeological contexts, however, it is not always easy to correctly identify items of wool processing, especially in the case of distaffs (that are frequently addressed as ‘sceptres’; Gleba 2011). An important future task will therefore be their better and more secure recognition.

**Meat and hides:** Pastoral communities have to act and manage their resources in a way that enables them to sustain their mode of living, i.e. that does not diminish the herd.
size below the subsistence limit of the family unit. Only a certain number of the beasts can be removed from the total share. This often applies to very young animals well suited for both meat and hide production (e.g. Barth 1961, 8). In the archaeological record, this would mean that especially in the area of winter pasture the bones of very young, newborn animals should be represented. Therefore, osteological studies might provide hints to a mobile pastoralist economy. Not only the types of animals slaughtered but also their age at death may indicate a certain kind of exploitation. In archaeological contexts frequently culling profiles have been used to determine whether the animals were exploited for „secondary products“ such as milk and wool or meat production (Sherratt 1981; Veenman 2002; on the problems Brochier 2013). A change in the composition of bone assemblages might also indicate a changing economy or the move from a more mobile to a more sedentary life. Also the presence of scrapers for the processing of hides could point to pastoralist activities (Anfinset 2008, 105–106).

Other features

Pottery: Breakable materials like ceramic vessels are not practical for travels and thus containers of wood or leather are preferred by mobile pastoralists (cf. Cribb 1991, 75–79). A larger and genuine pottery production is not to be expected. Rather ceramics were
used that could be procured from pottery workshops situated at permanent settlements within the region/along the route or its endpoints of the pastoralist movements. Ethno-archaeological field studies in northern Italy have shown that pottery was found very rarely and only at sites of more frequent and stable transhumant presence (Migliavacca/Saggioro/Sauro 2013, 223).

Weapons: The mobile character of the pastoralist’s lifeway brings about the need to constantly guard and protect the animals. The migration with the herd often encompasses the crossing of undomesticated or foreign ground. Encounters with predators, thieves or hostile herdsmen necessitate the ability of the shepherds to defend their flocks and themselves. Therefore, shepherds frequently carry weapons (e.g. Marinow 1961, 153–154). Especially the use of sticks or spears, as well as knives – both of a multi-tool character – has to be expected in a pastoral environment, while weapons of a man-to-man combat style (e.g. sword, helmet, shield or the like) might occur only occasionally. Prestigious weapons were sometimes given in return for their position and loyalty as status indicators to the camp leaders from the superior authority (e.g. Barth 1961, 28).

Adornment and iconography: Few if any studies have addressed the question whether there are certain pieces of personal adornment or types of iconography connected to pastoralists (for such an attempt in Roman times see Goldberg 2009, 77–83, connected to the image of deities). Whether a certain preference for seemingly „pastoralist“ themes (like animals, both productive livestock and wild beasts/predators, or typical dwelling types like huts, tents etc.) can be taken as an indication for a pastoralist lifeway of the respective society is highly debatable. Even a (hardly possible) quantitative or statistical evaluation of the number of rather „pastoralist“ images against „non-pastoralist“ scenes would most probably not serve as a sound basis to argue for the practice of a certain economy.

Systems of mobile pastoralism in Italy

For several hundreds of years, intensive transhumant movements connected central Italy with the plains of Apulia and the Tavoliere (fig. 7). This system was put under state control by Alfonso I of Aragon in 1447: The Dogana della Mena delle Pecore di Puglia, operational until the 19th century, annually saw the movement of a very large number – in 1604 more than 5 million – of sheep (Sprengel 1971, 54; Garnsey 1988, 199), demanding seasonal journeys of thousands of shepherds, covering distances of several hundreds of kilometers (Santillo Frizell 1996, 67; 72–73). The tracks of this large-scale and long-distance transhumance system (the tratturi and the smaller tratturelli or bracci) are sometimes still visible, as stripes of green and characteristically short vegetation running through the countryside (fig. 8; Zöbl 1982; Volpe/Buglione/De Venuto 2010; Sprengel 1971).

The modern south Italian transhumance movements were organised in a very hierarchical manner: The massaro as owner of large estate and flocks was the highest authority. Second to him was the capobuttero (chief of shepherds), directly responsible for the herds. A similar position was occupied by the caciere (cheese-maker) holding the highest office in processing the milk. These two were followed by the butteri responsible for transporting all the necessary items, cleaning up and erecting the camps and transporting the
Fig. 7: Southern Italy. Grey lines: courses of modern (dogana-) tratturi; light grey: summer pastures; dark grey: winter pastures; encircled: area of the statonica-transhumance. Map based on Greiner 2003, fig. 29, the course of the modern tratturi on Sprengel 1971, fig. 9 (author).

products. The simple shepherds occupied a rather low position, each responsible for a certain amount of animals (flock, “morra”) and their welfare. On the winter pastures in Apulia, from October to March, the shepherds stayed with the flocks all day and night. At the lowest level of this hierarchy were the “garzoni” (minions) who were assisting the shepherds, doing all the humble and hard work (Lombardi 1999, 29–38; cf. Jorge Dias 1969, 801).

A much less hierarchical system was documented recently by Mientjes (2004; 2010). He analysed the situation in the area of Fonni in central Sardinia in the 19th and 20th century AD, where transhumant shepherds travelled a distance of less than 100 km to the lowland areas in winter (December–April), thus practising “inverse transhumance” with stable settlements in the uplands and only seasonal pasture in the lowlands (see below). While the families stayed at home in winter, the men and boys accompanied their relatively small, privately owned flocks to the winter pastures. Different from the dogana-system, the state was hardly involved in these activities. Instead, the pastoralists were acting freely and on their own behalf. Mientjes showed that the existence of this system was facilitated by several different but interconnected factors: From the 19th century
on, the government encouraged tendencies to privatize the quite substantial amount of communal land (Mientjes 2004, 179–180), and from the end of the 19th century on, large private cheese factories were being set up in the lowlands. This resulted in the participation of the Sardinian (agro-)pastoralist economy in a large capitalist market system and consequently led to the commercialization of pastoral production (Mientjes 2010, 153–154). Furthermore, after the 1950s new technological developments like construction materials (concrete building blocks, cement render and roofs of corrugated iron) were introduced, rapidly transforming the pastoral economy both functionally and socio-economically. Mientjes was able to show that these developments and the pastoral reactions to them rapidly created a new social elite, the *principales* (often rich flockowners), who within a relatively short time became a new rural bourgeoisie with large plots of former communal land acquired by customary right. In this way, rich flockowners became large estate owners, involving themselves in both pastoral and agricultural activities, although generally shepherding and farming were regarded as distinct professions – shepherding was in fact more socio-culturally valued. Sons of shepherds were normally in the family business and built up an own flock by taking from the paternal one. After establishing economic autonomy, they were free to choose with whom to cooperate – whether relatives or non-kin. The women were devoting much work to small-scale agriculture for direct domestic consumption. Only the pastoral products were bound for the market and served to accumulate wealth for the family, while agriculture instead created a high level of self-sufficiency in the daily consumption as an indirect strategy of economic support. In this system, poor shepherds worked for the rich ones on the basis of different kinds of contracts, all encompassing the possibility of building up own capital and thus
social promotion (Mientjes 2010, 156–160). Mientjes also stresses the role of further property-relations: Whereas in the uplands much of the grazing ground was communal property and free to use, in the lowlands the plots of land were privatized sooner and thus had to be rented for winter pasture, establishing relations with its proprietors. In this constellation, the shepherds became heavily dependent on a) the lowland landlords because of the rent they charged for their pasture and b) the cheese factories because of the price they paid for the milk. The socio-economic relationships between individual shepherds and between shepherds and landowners were short-term and of a pragmatic and economic nature, basically every year calling for new negotiations – clearly showing that this small-scale pastoralism even in times of stable political circumstances was very flexible and constantly demanding new agreements.

The shepherds moved between not only different natural regions but also distinct areas of social hierarchy: In the lowlands they were subordinated to/dependent on the larger, regionally and internationally orientated power-holders, while at home in the uplands they were often more powerful than the local farmers. Thus, upward mobility within the same pastoral groups may vary geographically. This is also due to the reliance on domestic animals as a resource, since these are much less monopolistically manageable than the limited resource land. Mientjes’ case study is rooted firmly in history – but can we learn anything for earlier, even prehistoric situations?

Ancient pastoralism in Italy

The practice of transhumance between central and southern Italy is already attested for Roman times (Zöbl 1982, 20–23). Maybe the earliest hint is a passage in Frontinus (writing in the 2nd half of the 1st century AD) mentioning that in 290 BC the Roman consul Manius Curius Dentatus led his troops the fastest way along obscura itinera from Samnium to Sabina (Frontin. strat. 1,7,4; cf. Camerieri /Mattioli 2014, 333; Santillo Frizell 1996, 67). This supposes that there were ‘hidden tracks’ between central and southern Italy, capable of leading a whole army through the hilly Apennine region. These might be identified with pastoral routes (named calles in Latin, sg. callis). In the 1st century BC, Marcus Terentius Varro reports that his flock of sheep was driven from Reate in Latium to the winter pasture in Apulia (Varro, res rusticae 2,2,9). The same author also testifies that Publius Aufidius Pontianus of Amiternum has his flocks driven from Umbria to the pastures of Metapontum and then to the markets at Heraclea (Varro, res rusticae 2,9,6). In the 3rd/2nd century BC the flocks of rich landowners were largely tended by slaves. The Agrarian Law of 111 BC granted even more possibilities to the wealthy flock-proprietors to use the common land (ager publicus) for their purposes – free pasturage for all flocks and herds on the march (Carrier 1932, 32–38). Another very personal indication is given by two Roman grave inscriptions, one from Sulmone in the Abbruzzi (CIL IX, 3113) and the other one from Canosa (Chelotti 1985, no. 78). They seem to record the fate of a transhumant shepherd family and of parents who had to bury their two sons at these very distant places (Crawford 2005, 161). The most famous evidence for transhumance in the Roman period is an inscription of the 2nd century AD at one of the gates of Saepinum, reporting of the problems that the shepherds occasionally had with the inhabitants of the
cities they passed (CIL IX, 2438; the name of the town probably derives from the Latin term *saepta* [corral/pen]; Magnani 2003, 53).

Some scholars are convinced that the Romans just regulated and channeled activities carried out earlier by the Italic communities (Camerieri/Mattioli 2014, 334). Some hints to the high age of mobile pastoralism might be inferred from statements of Columella who in the 1st century AD praises the products of Calabrian and Apulian sheep breeds (Colum. 7,2,3). It is likely that their excellent characteristics resulted from breeding processes and intensive sheep rearing commencing already in the Iron Age. In order to ascertain this assumption, the archaeological material has to be reconsidered looking for possible evidence of the existence of mobile pastoralist communities in Iron Age southern Italy. This will be exemplified in the following, paying special attention to the material as well as social features outlined above and suggesting new methods and lines of research.

**Indications of Iron Age mobile pastoralist activities in southern Italy**

Objects are rarely or not securely ascribable to sedentary, agricultural, or mobile pastoralist communities. Ethnographical observations have shown that farming and pastoralist communities are often deeply interwoven and mutually dependent (cf. Cribb 1991, 65; Anfinset 2008, 86). Therefore a straightforward division between sedentary farmers and mobile pastoralists is not possible, often not even in historical communities. Also in terms of architecture and site distribution a clear-cut division between sedentariness and a mobile lifeway is difficult to detect: Even in mobile pastoralist communities (transhumant as well as nomadic), larger parts of the community may live in permanent settlements, normally situated either at the area of winter (normal transhumance) or summer (inverse transhumance) pastures (Hütteroth 1959, 38; Waldherr 1999, 565; Carrier 1932, 8). Also along the seasonal routes stable dwellings might be erected, either permanently or seasonally inhabited by parts of the transhumant communities, acting as areas of regular stopover or sites with facilities for the processing of pastoralist products, as meeting places and markets.

It is likely that the oldest pastoralist routes into modern-day Apulia were much shorter than the Roman and the *dogana* routes. Like the short-track Sardinian system documented by Mientjes they might rather have departed from the mountainous hinterland of the southernmost Apennines (northern Basilicata). One such system, operational until the 20th century AD, is the so-called „*statonica*“ (fig. 7). It connected the high valley of the Ofanto to the middle valley of the Sele, from Forenza and Ripacandida to the plain of Atella, from where it continued over San Fele, Bella, Castelgrandine und Muro Lucano up to Buccino and Eboli (Motta 1999, 154), mediating between the karstic Murge and the Lucanian Apennine (Sprengel 1971, 135–140 with fig. 29–30). In modern times, more than ⅔ of the stock kept in the Murge and adjacent areas (like e.g. Ruvo in Puglia) was taking part in the short-track (mostly just up to 30 km) migrations of the *statonica*. The southernmost summer pasture area for herds hibernating in the Murge area is the region around Pescopagano, between Cairano/Calitri and Muro Lucano. The direct line to the coast would lead via Melfi – Rionero – Ripacandida – Venosa. This is exactly this area where at Ruvo del Monte, only 10 km east of Pescopagano, a necropolis of very richly
equipped Archaic „chiefs“ has been found (Bottini 1981; Scalici 2009). In the light of the above considerations a minute analysis of one particular site of this area in its potential for research in mobile pastoralism seems fruitful.

**Detailed case study: Ripacandida**

Ripacandida is situated exactly along the course of the *tratturo* of the *statonica*-system (fig. 7; 9). This track had a predecessor (*callis*) that in the middle- to late-Republican period connected Venosa and Atella and passed some 2 km southeast of Ripacandida (loc. La Veglia; Volpe 1990, 147). The site overlooks the confluence of smaller river valleys in a region where the Ofanto and the headwaters of the Sele form a trans-Apennine axis between the Tyrrhenian and the Adriatic Sea (e. g. Yntema 1990, 15). The valleys of the Bradano and the Basento drain the area southwards to the Ionian coast. The Archaic remains recovered from the site provide an ideal testing ground for the existence and development of mobile pastoralism in this area and time period.

Fig. 9: Areas of Ruvo-Satriano ware (dark grey) and „Daunian“ ware (light grey); Ripacandida boldly encircled (author).
The graveyard of Ripacandida has recently been studied in detail (Heitz 2016a; 2016b; in press). No dwellings contemporary to the necropolis but earlier wells – not only important for humans but also animals – are attested (Carollo/Osanna 2009, 394–409). For later periods only scarce settlement traces have been documented within and close to the area of the Archaic cemetery, used from the turn of the 7th to the 6th century BC until the transition from the 5th to the 4th century BC. All tombs are simple pit inhumations with the deceased deposited in a crouched position. Men were buried on their right hand side, while women were placed on their left side. The graves are grouped in loose clusters each normally representing almost all age and gender groups, strengthening the assumption that the clusters represent small core families or household units (fig. 10). The origin of the ceramic grave goods shows the predominantly regional, initially primarily East-West reference of the local community. The standard local pottery set consists of a large storage vessel (olla), a ladling cup (attingitoio), a jug and frequently another open vessel (fig. 11). Noteworthy is the limited amount of ceramic material in the earliest burials, while jewelry is well represented. From the second half of the 6th century BC on pottery is also produced locally (Setari 1999) on a small scale, while much of the pottery still comes from the regional environment, especially from the adjacent west „north-Lucanian“ area of Ruvo-Satriano style, and from northern Apulia to the east, the so-called „Daunian“ ware (cf. fig. 9). Imports or imitations of Greek vase shapes occur early in the ceramic material, indicating at least indirect contact to coastal regions. The first imported vessels are Ionian B2 cups, replaced in the 5th century BC by black-glazed kylikes and skyphoi. Also other shapes associated with drinking activities like craters and trefoil jugs were imported from the Greek area or imitated locally, maybe taking over the function of the traditional ollae and jugs. The equal distribution of tableware in both gender groups suggests that hospitality and commensality in the household were regarded as a central baseline of social action, shared by both sexes. Moreover, no gender- or age-based differences in access to imports could be observed.

Within the early phase of the grave clusters, often the pairing of two tombs of individuals of different sex is attested, suggesting the existence of marriage-like symbiotic partnerships. It is interesting that the offerings of these grave couples frequently vary with regard to their origin: While e. g. the man was interred with local and Greek-influenced vessels, the pottery of the woman for the most part comes from Ruvo-Satriano workshops. In another example the equipment of the male burial is rooted in the indigenous tradition, whereas the pottery of the woman shows significantly closer connections to the Greek area (Heitz in press). From female burials only a few functionally clearly identifiable objects have been recovered. A focus lies on jewelry, including a rich fibula costume. Apart from magnificent amber-coated and some silver fibulae as well as a generally more extensive equipment, no differences between male and female brooch customs can be observed (cf. Robb 1997, 51–52). Delicate silver hair spirals and large fibulae of the same material were restricted to adult women, together with an extensive ring costume (bracelets and belt rings) probably articulating status differences. At least some women were engaged in textile production, indicated by loom weights and spindle whorls. According to the number and distribution of these objects it seems however that this occupation was not practiced on a larger scale locally. Recent analyses of the preserved textile remains from the necropolis indicate that most of the fabrics were woven in a Greek manner, i. e.
Fig. 10: Ripacandida, schematic map of the cemetery (author).
as weft-faced tabbies while some were equipped with typical indigenous tablet-woven borders (Gleba et al. in press). If these were attached to textiles obtained from Greek markets, this would fit well to the typical production and consumption pattern of mobile pastoralists. Men are mainly characterized as protectors (e.g. of family and property) by the frequent weapons, especially spears, in their tombs – only very rarely combat weapons like swords occur. Large knives and spits indicate that slaughter and meat preparation was usually a male duty.

The lack of grave pairs in the later phase suggests a gradual change in local family structures from the 5th century BC onwards. Now also 'special' burials appear, containing individuals buried on their right side but lavishly equipped with a 'female assemblage'. They are still part of the clusters and probably to be interpreted as women that had acquired certain male traits, perhaps acting as household head. This phenomenon indicates that the community was quite flexible, pointing to a fundamentally egalitarian structure with a temporary and situational handover of (familial) authority to persons particularly qualified (i.e. by age, experience, strength, charisma, etc.) without a deeper social hierarchy. What instead emerges is the organization in small pedigree- or kinship-groups, in each of which certain members took over different tasks such as weaving and spinning (women) or protection (men). Also in the 5th century, burials of men equipped with helmet and bronze belt appear that were removed from the household-based grave cluster practice. The new gear served symbolic needs, probably as rank insignia. The provision with objects of purely symbolic value made of quite precious materials and non-local craftsmanship, as well as their detachment from the grave clusters points to a status of these deceased surpassing the level of a single family unit and their connection to over-regional authorities whose local representatives they might have been – like the camp headmen of pastoral groups.

Initially members of three to four household clusters were buried, later increasing up to a maximum of 13. Only very careful estimates are possible regarding the number of the living community. Using a simple formula for calculating population size (Acsádi / Nemeskéri 1957, 142 f.), the result suggests some 22–23 individuals as the average number of residents at the site over the entire period, with a maximum of 33 in the second half of the 6th century BC. The size of each household would be three to five persons. This seems a very low value shedding doubt on the permanent presence of the community at Ripacandida. Taken together with the fluidity of the small household units, this rather resembles patterns as represented within mobile pastoralist communities.

It is likely that in the wider regional social network of south-east Italy in the course of time powerful lineages developed enjoying an outstanding social prestige – analogously to communities of mobile pastoralists (cf. Anfinset 2008, 84–85; Cribb 1991, 40–41). The egalitarian local community of Ripacandida was a sub-segment of a larger, regionally hierarchical society (cf. Chang 2008, 339). Literary sources – albeit to be taken with a lot of caution – would perfectly correspond to such an interpretation. The existence of inter-regional elites is illustrated by rich burial sites as Melfi-Pisciolo, Melfi-Chiucchiari (cf. Popoli Anellenici 1971; Kok 2009) and Ruvo di Puglia (Montanaro 2007) with north-
Apulian traits or in the western area Ruvo del Monte (Bottini 1981; Scalici 2009; 2013) and Braida di Vaglio (Bottini/ Setari 2003; 2013). Interesting is also the fact that the earliest deceased of the excavated cemetery of Ripacandida (buried at the turn from the 7th to the 6th century BC) and thus the „founders“ of the most important clusters are all women. Whereas in a sedentary population this might point to an elevated social position of females, within a mobile pastoral environment this could reflect a process of slowly increasing sedentariness – as seen from ethnography, (elder) women often did not take part in the seasonal journey or were left behind at a certain point (Hütteroth 1959, 53–74). Thus, while the lacking architecture can only indirectly suggest ephemeral types of dwelling, the community of Ripacandida shows several traits resembling ethnographically observed mobile pastoralists: small, egalitarian household units, armed males, women engaged in small-scale textile production and good connections between areas of summer and winter pasture, reflected by the Ruvo-Satriano and the Daunian (and later the Greek) pottery wares.

Indeed, the pottery in the first tombs is limited to a core set of regional wares. Later ceramic assemblages show a growing content, enlarged by pottery produced locally. That local pottery production started some two generations after the first burials might reflect the fact that a) a just seasonal stay at the spot did not necessitate nor allow the
Fig. 12: Ripacandida, locally made *ollae* of tomb 27 (left) and tomb 25 (right), both 2nd half 6th cent. BC (photo: author).

Development of a pottery production and b) the vessels could easily be procured from other sources on seasonal migrations. All this points to a growing degree of sedentism at the site. The local pottery products, although stylistically uniform, vary considerably in terms of execution. In some cases (fig. 12) non-specialised household production can be suggested – when the respective vessel was needed, probably no expert was around. From the earliest stages onwards the local ware – restricted to very few shapes – encompassed the *askos* (fig. 13). Very common in Daunia and the uplands of southern Italy, this shape was used until the end of the production of the indigenous „Daunian“ ware in the 3rd

Fig. 13: Ripacandida, locally made *askos* and *attingitoio* (ladling cup) (photo: author).
century BC (Yntema 1990). It features at least one, often two vertical spouts attached to a globular or squatted body. Instead of a second spout, sometimes small appliques or simple tips were added, giving the shape a duck-like appearance. The function of this shape is still enigmatic and content analyses are lacking. Apart from the shape resembling a čepák (see above), a typological hint to the use of this type of vessel in milk processing might be the occasional existence of clay sieves in the spouts (Curti 2005; Heitz in press). If this is true, the askoi of Ripacandida can also point to a pastoralist stopover area developing into a site where the sedentary members of the community (like women, older people and children) were occupied with tasks like cheese production. In terms of probable pastoral iconography, the locally made askoi regularly show an intriguing detail: The rear „spout“ is formed as a figural applique in the shape of a bull’s head. The vessel is thus iconographically related to pastoralism, as are ram-shaped pendants found e. g. in tomb 102 (Heitz 2016a; in press).

The wider regional network

From the 7th century BC on at inland sites larger buildings were erected. At Torre di Satriano, a large apsidal hut was built, succeeded in the 6th century by a representative rectangular mudbrick building (anaktoron), in whose erection the participation of Greek craftsmen is attested (Baglivo 2013). The architecture of the anaktoron suggests supra-regional importance and connections of the local chief, and the rich finds and decoration indicate the role of the building as some kind of prestigious „banqueting hall“. The chief might have presided over sedentary communities as well as over pastoralist groups, using this impressive architectural frame also for inter-tribal feasts like witnessed for historic pastoral societies (e. g. the Basseri). A connection to pastoral activities might be seen in a bottleneck structure directly adjacent to the anaktoron, possibly serving for the counting or separation of flocks (Osanna 2013, 61–63; cf. Busana et al. 2012, 153; cf. Marinow 1961, fig. 23). More evidence for the existence of higher regional authorities develops in the 6th and 5th century BC at numerous other sites like Melfi, Lavello, Ruvo di Puglia, Ruvo del Monte and Baragiano (cf. fig. 7; 9). At Braida di Vaglio, tombs contained the remains of lavishly equipped deceased – the inclusion of children suggesting a dynastic structure. The supra-regional relations of this elite are testified by an inscribed Etruscan bronze cauldron, probably part of a gift exchange (Bottini/Setari 2003, esp. 116).

Intriguing is also the existence of Archaic/Classical sites with large enclosures in areas where in historic time pastoral tracks or winter pastures were located. At Arpi, close to the medieval dogana-hub Foggia, a 7th/6th century BC walled ditch-and-bank system circumscribed a vast, almost empty area of some 10 km² (Whitehouse/Wilkins 1989, 117). In the area of winter pasture at the site of Cavallino a huge area of 69 hectares was encircled in Archaic times (D’Andria 2005). Early internal settlement traces are very scarce, while a central position was dedicated to a small sanctuary, probably of a female indigenous deity connected to weaving (Burkhardt 2012, 70f.). The structures seem too weak to protect agricultural area or serve as a retreat in case of armed conflict – but to impede flocks or predators of leaving or entering the enclosure, such a simple system would have sufficed. They might represent Archaic parallels of the his-
toric *poste/riposi* – large areas (between 3 and 56 hectares) in the direct vicinity of the *tratturi*, used for stops, trade, and flock distribution (Sprengel 1971). Future research, e. g. by means of phosphate analyses, might contribute to a better understanding of these sites.

**Discussion and future prospects**

Different modes of mobile pastoralism existed. It is a fluid concept, way of life and economy with an ephemeral material culture. Similar systems might have been in operation at different times and places: like the hierarchical system with hired shepherds certainly known to Sophokles in the middle of the 1st millennium BC Boeotia and projected back by him into mythical times, recurring in southern Italy in the 1st century BC by the writings of Varro and the 2nd century AD Saepinum inscription, as well as by the modern *massaro*-system. On the other hand, a much less hierarchical and smaller-scale system of families travelling with their privately owned flocks as their main personal subsistence basis is well documented ethnographically, mirrored by Roman inscriptions and also in the *dogana*-system as well as in the pastoralists of modern Sardinia. Thus, a number of things become clear:

1) Pastoralism is not a standardized/uniform endeavor and can take many shapes, mainly influenced by economy, power relations and property.

2) Different forms can exist at the same time and within the same region.

3) There is no linear development – dependent on changing circumstances and decision-making, the extent and form of pastoralism is variable, even in very short time periods.

For archaeologists, these observations seem to obscure the detection of mobile pastoralism. No strict division exists between sedentary and mobile communities and indeed the same „tribal“ units may consist of both (cf. Anfinset 2008, 81–83; 88–92). Even within a well-defined regional and temporal frame, the positive proof of mobile pastoralism appears very difficult. But they also show that this type of economy is by no means to be underestimated and that the search for its traces will be crucial for an appropriate understanding of past society and economy.

Ethnographic observations can aid to a better understanding of the functioning of pastoral economies and to overcome wrong modern academic conceptions. Ethnography shows, for instance, that by far the major part of the wool was sold and only a small part was kept to produce basic items. This calls for customers in demand of larger quantities of wool and a sedentary textile industry. In the case study of Archaic southern Italy, this might have been located in the Greek *poleis* like Metaponto or Taranto (cf. Gleba et al. in press). These fast-growing harbour towns probably created key markets for textiles, not only in terms of clothing but also for tissues like sail-cloths (Bender Jørgensen 2005). It seems therefore likely that specialized pastoralism surpassing the subsistence level of small shepherd communities developed in a time when such markets and demands evolved. The scenario reminds of the situation on Sardinia in the 19th century (and again after the 1950s), where the sudden boom in the demand of *Pecorino Romano* led to the
establishment of large cheese factories, resulting in the participation of the Sardinian (agro-)pastoralist economy in a large capitalist market system and the commercialization of pastoral production (Mientjes 2010). This in turn offered many possibilities of material gain and upward social movement for the shepherds, possibly leading to the creation or solidification of elites and hierarchy – exactly the process mirrored in the findings of Ripacandida.

Future investigations using new research possibilities will add much to the study of itinerant herdsmen (for a recent regional study integrating ecological factors see Vanni 2015). The main problems remain the perishable nature of the mobile shepherd’s material culture and the seasonality of their whereabouts. While for the first problem some solutions were offered (i.e. an open eye towards the function of items, traits or features in an archaeologically discovered community), site seasonality and migrant stockbreeding may only be proven by the implementation of scientific techniques that are still being developed and tested regarding their archaeological practicability: Residue analysis of pottery and metal vessels for instance can give an idea about their use in milk consumption or processing (cf. Kindstedt 2012, 105). For this aim newly discovered and unrestored pieces of different shape and from several sites have to be subjected to analysis.

Another promising approach is the use of Geographic Information Systems (GIS) to trace and reconstruct possible migration routes: This approach can be based on a grid of sites supposed to be situated along the pastoral routes and serving as linear waypoints. Camerieri and Mattioli (2014) to this aim used the castellieri (Iron Age hillforts), sites both with means of visual control and serving as markers in the landscape. The GIS-based reconstructions yielded very different results, though, depending on the variables taken into account. In order to gain best results, also the necessary features for a journey with the flocks have to be mapped: springs (esp. sulphurous ones; Santillo Frizell 1996, 73–74; Ovid, Fasti 4,739–740), wells, pasture areas, shelters, fords and the like. Even if property relations, size of flocks and migration distances changed, it is likely that these tracks remained. Apart from hillforts, structures that might be expected along such trails are campsites, buildings for cheese-making and shelters. In historical cases enclosed areas (posti or riposi) are attested, where larger amounts of flocks, even of different herding units, could rest for a period of time – these might be archaeologically visible as large, open areas surrounded by a ditch. A task has to be the development of a set of parameters determining the choice of tracks – also including factors like average daily distance covered. The routes suggested by GIS then have to be tested by scientific analyses – like phosphate prospection, geomorphological and microbiological sampling and comparison of known and suggested drove-roads. Recently, Mahaney et al. (2017a; 2017b) pursued a similar approach, employing the geomorphology of trial trenches, the structure and $^{14}$C-dating of the layers as well as their microbiological contents in order to trace animal faeces. Regarding the mobility of flocks the currently developing branch of analysis concerning the origin of wool used in textile production can be promising (Frei 2014): By means of strontium analyses the mobility not only of humans and animals, but also of textiles, suggesting the local or non-local (referring to the findspot) origin of the raw material and allowing for conclusions regarding either the trade of wool or the migration of flocks.
The main line of reasoning taken in this paper, however, was to not only look at the tasks performed within an archaeologically given community but also to examine their social structure. Although many open questions remain and hardly any sound evidence for mobile pastoralism can yet be forwarded (also due to the flexible nature of this mode of economy and the possibility of many changes through time), in sum the observations made in the case study strongly suggest the existence of mobile pastoralist groups like the community of Ripacandida in Iron Age/Archaic Italy. However, a thorough investigation concerning the age, extent, role and importance of mobile pastoralism in Archaic southern Italy needs much further study, calling not only for archaeologists working at different sites to keep this question in mind and consider their material in this respect, but also for the consistent application of scientific methods and techniques like regularly employed soil sampling (for dung), content analyses and geomorphological studies. Only with new data from several accordingly treated sites a fuller and more detailed picture will emerge and an adequate evaluation of the role of pastoralism will be possible – resulting from a collective effort not only of different archaeologists but of specialists of different disciplines.

Bibliography


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Vanni 2015: E. Vanni, Mobility as a Proxy for defining Cultures: Reconsidering Identity and Transhumance from a Long-Run Perspective. Review of Historical Geography and Toponomastics 10, 2015, 125–150.
Volpe/Buglione/De Venuto 2010: G. Volpe/A. Buglione/G. De Venuto (eds.), Vie degli animali, vie degli uomini. Transumanza e altri spostamenti di animali nell’Europa tardo-


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