

Mobility and Place Making in Late Pleistocene and Early Holocene Italy

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Abstract

This paper offers a revised overview and model of Late Pleistocene and Early Holocene hunter-gatherers in Italy, one that questions and extends existing materialist, evolutionary and ecological perspectives through an emphasis on the socio-cultural dynamics of mobility and place making. Particular attention is paid to selected caves and rock shelters, which gained an anchoring power through the repeated performance of mundane and ritual practices, but never to the point of immobile sedentism.

Keywords: *caves, Early Holocene, hunter-gatherers, Italy, Late Pleistocene, Mesolithic, mobility, place*

Introduction: Mobilities, Place Making and Hunter-gatherer Studies

‘The new mobilities paradigm’ has a central interest in the politics of mobility (e.g. Clifford 1997; Adey 2006; Cresswell 2006; Sheller and Urry 2006; Salazar and Smart 2011; Lelièvre and Marshall 2015). As such, it has significant potential to challenge and extend established archaeological narratives on the (often long-distance) movement of people and goods in all periods and regions of archaeological inquiry (Beaudry and Parno 2013). In Mediterranean archaeology, for example, studies of mobility and migration during later prehistoric and

classical times have benefited from thinking more about mobility in social (as well as economic) terms, especially mobility's role in promoting social interaction and change and in the construction of social identities and memories (e.g. Gibson 2007; Knapp and van Dommelen 2010; van Dommelen 2014). Broadly, the paradigm calls for greater understanding of how, enhanced by various objects and technologies, people move, and how mobility and control over mobility both reflect and reinforce power. It also highlights mobility as a highly diverse activity, where different people move in different ways, at different times, in different political, social and economic contexts. More specifically, it problematises 'sedentarist' perspectives that treat stability and fixed places as normal, as opposed to change, dynamic places, multi-sited communities, the crossing of geographical boundaries and globalisation.

Understanding places and their construction ('place making') is a key aspect of this paradigm, which is particularly relevant to studies of archaeological 'sites' and their accumulated features and deposits (e.g. Preucel and Meskell 2004). Instead of presuming places to be fixed and distinct from their visitors, a complex relationality of places and persons, connected through performances, is envisaged (e.g. Casey 1993; Ingold 1993; Bennett 2010). In other words, defined places are produced and reproduced at certain locales and times out of what activities are practiced, experienced and understood within them. These built (and natural) places can seem anchored and stable, but are in reality permeated by streams of energy that flow in and out of them, including mobile members of multi-sited communities with their portable resources. Moreover, the diverse mobilities (and immobilities) of people to and from these dynamic nodes (including their motivations, velocity, rhythms, routes, experiences and frictions—Cresswell 2010), their physical and social encounters, and their differential access to privileged spaces within them, are all worthy of consideration. We might also seek to decentre and unbound these destinations, by

paying greater attention to the journeys and routes taken by people, objects and animals through land- and seascapes (Cummings and Johnston 2007).

All this is relevant to hunter-gatherer studies, including ongoing archaeological work on Mesolithic hunter-gatherers in and around Italy. These recognise the economic and biological necessity of hunter-gatherer bands moving about the landscape as well as aggregating to exchange mates, although they tend to downplay the social and cosmological dimensions of this. A notable recent exception is Cannon (2011) who, in writing about the archaeology of hunter-gatherer thought and action, describes ‘sites’ not simply as occupied or inhabited but as meaningful ‘places’ and ‘landmarks’ within sacred geographies, often created through ritual performances and interactions with spiritual entities, and helping to establish the continuity between ancestral beings, social groups’ resources and the land (see also David *et al.* 2014: 1178-79). An ethnoarchaeological example is provided by Littleton and Allen’s (2007) study of Aboriginal burial places in the Murray region of southeast Australia, which, they argue, were persistent (albeit continually abandoned) places that helped groups of people structure their connections with the land. Cummings (2000), an archaeologist, has also suggested that Mesolithic sites in Pembrokeshire were meaningfully situated in relation to the myths, metaphors and memories associated with the lived-in landscape.

Below, I take these lines of inquiry further with regard to Mesolithic Italy (and occasional reference to the wider Mediterranean): first, through an extensive and—in places—critical synthesis of archaeological data for, and narratives of, human mobility; then, with discussion of the anchoring power of special gathering places in the landscape. My approach here has been (1) to consider in some depth the published archaeological data (without entering into the full details of lithic and faunal remains); (2) to explore on multiple scales patterns in these data over time and space (including cutting across modern

administrative and academic regions); (3) to recombine contextually all lines of evidence (including art and ritual); and (4) to reconsider all this in the light of the new mobilities paradigm. My aim is to offer a revised interpretation of human mobilities and place making in Late Pleistocene and Early Holocene Italy, and of associated social relations, tensions and dynamics.

Movement over Space and Time in Mesolithic Italy

From a long-term archaeological perspective, the grand scale of human mobility over space and time is undeniable (e.g. Sellet *et al.* 2006). Indeed, different scales and dimensions of mobility are scientifically identifiable, measurable, even capable of being modelled, using a variety of archaeological approaches. These are relevant as much to hunter-gatherer research as to other areas of archaeological investigation (e.g. Surovell 2000; Cooper 2010). For Italy, such studies confirm that mobility remained a key feature of human behaviour throughout the Final Epigravettian and Mesolithic periods (ca. 14,000–5350 Cal BC). It is worth summarizing some aspects of this, partly as a measure of successfully accumulated archaeological knowledge, but also to highlight some concerns over its interpretation.

Over lifetimes, centuries and millennia, adaptive human groups expanded and contracted their socio-economic territories in and around Italy—generally within the constraints of a fluctuating climate and of responsive ice-caps and glaciers, lake and sea levels, flora and fauna (Figure 1). While the coastal plains shrunk, the mountains and large Tyrrhenian landmasses of ‘Corsardinia’ and Sicily were colonised. (Sooner or later, boats must have been used—Broodbank 2006.) Annually, groups of people moved across extensive regional territories, seizing opportunities to incorporate islands and coastlines, lagoons, lakes and river valleys, expanding forests and high-altitude summer grasslands. Seasonal mobility was also integral to subsistence strategies, which made good use of seasonally variable (yet

not entirely predictable) abundances of food (e.g. Barker 1981: 141-42; Phoca-Cosmetatou 2005; Kompatscher and Hrozny Kompatscher 2007; Franco 2011). Migratory red deer were a major preoccupation, both in art and in the hunt (where selective culling was practiced), extending from winter lowland camps such as Grotta Polesini situated on the bank of the River Aniene (Barker 1975: 122; Cremonesi 1987) to summer/autumn upland shelters such as Plan de Freà II (Angelucci *et al.* 1998).

>>Insert Figure 1 about here<<

Northeast Italy offers the strongest archaeological evidence of such mobility, particularly due to the relatively numerous radiocarbon determinations that enable us to chart the Late Glacial and Early Holocene peopling of this area over time and space (e.g. Naudinot *et al.* 2014). This vast area extends from the Gulf of Venice (which, during the Last Glacial Maximum, lay at the head of the Great Adriatic Plain), across the Po Plain, into the uplands of the Prealps and eastern Alps.

During the final stages of the Pleistocene, human groups in this region strategically adapted their routines and rituals of life to perceivable major changes in climate, flora and fauna (e.g. Cusinato and Bassetti 2005; Ravazzi *et al.* 2007; Angelucci and Bassetti 2009). The onset of mild (warm and moist) climatic conditions in the Late Glacial Bølling-Allerød interstadial (ca. 12750–10750 Cal BC) had particularly significant consequences. Areas of steppe-grassland shrank, tree cover became increasingly thick (first at low altitudes and later in the mountains) and treelines rose. These changes in vegetation led to the expansion of deer in the forests and possibly also to the upwards retreat of ibex and chamois. Perhaps in response to this changing distribution of some of the central elements of their traditional diet, hunter-gatherers using Final Epigravettian-style lithic industries (ca. 14450–10150 Cal BC)

expanded their annual territories, connecting old winter-season base camps in the valley bottoms of the Prealps to new higher-altitude hunting camps in the Prealps.

In the Early Holocene, Early Mesolithic human groups (now using a Sauveterrian lithic industry sharing wide stylistic connections across western and central Europe) penetrated much more deeply into the mountains of Northeast Italy. This development coincided broadly with the Preboreal and Boreal climatic phases (ca. 8350–6050 Cal BC), which saw the rapid expansion of forests into high-altitude areas (Angelucci and Basetti 2009). It is widely accepted that these groups of hunter-fisher-gatherers moved seasonally from wetland ‘base camps’ in the valley bottoms, particularly in the Adige Valley, to middle- and high-altitude summer hunting camps. Grimaldi, however, has plausibly argued (based on ethnographic analogies with territories occupied by subarctic groups of hunter-gatherers) that they moved over even more extensive territories, covering the whole of northeast Italy, from the Po Plain in the winter to the mountains in the summer and autumn (Grimaldi 2005; Grimaldi and Flor 2009). New seasonality data for the valley-bottom sites are also point to a more complex pattern of spring and summer occupation (Wierer *et al.* 2016).

Following a cold snap at around 6250 Cal BC, the Atlantic phase (also known as the Holocene climatic optimum) saw the establishment of a particularly warm and moist climate. This overlapped partly with the Late Mesolithic period and its associated north Italian Castelnovian style of lithic industry (ca. 7550–4650 Cal BC). At this time, human activities may have contracted in the mountain zone, particularly compared with the lowlands, perhaps as continuing forest expansion restricted ibex and chamois to higher and higher altitude grazing land while stimulating an increase in populations of red deer, roe deer and wild boar in lower-lying areas. The introduction of agriculture to northeast Italy (although lying outside the scope of this paper) must also have impacted on hunter-gatherer mobility. Nevertheless, long-term continuities are also evident.

This kind of grand narrative can be filled in with further archaeological details of human mobilities in Mesolithic Italy, revealed by a range of specialist archaeological studies. These studies encompass subjects such as the identification of human and animal bone isotopes, the spatial analysis of site locations and GIS-led modelling of pathways and journeys, the analysis of stone and shell artefact use and provenance, and the interpretation of osteological measurements. (Ancient DNA studies offer potential, but are currently of limited interpretative value due to the sparsity of ancient comparative data—e.g. Modi *et al.* 2017.)

Mannino's isotope studies offer a good initial example. His work on marine molluscs that were consumed by human groups in caves in the limestone hills around the coastal plain of Palermo (known as the Conca d'Oro) in northwest Sicily has helped to distinguish a gradation of seasonally occupied sites: from those located within 2 km of the coast, such as the Addaura caves, occupied mainly during the late autumn and winter, to slightly more inland caves, some 3.5–5.5 km from the coast, such as Grotta Niscemi and Grotta della Molara, occupied from autumn to early spring, to summer camps in the uplands represented, for example, by a lithic scatter at Sagana (e.g. Mannino and Thomas 2004–2006; Mannino *et al.* 2011). This diversity in site occupation, which was presumably matched by variability in group composition, might partly be understood in terms of 'logistical mobility' involving specialised task groups (Binford 1980).

Site patterns in diverse regions indicate that accumulated networks of routeways along major valleys and associated watercourses, as well as on mountain passes and ridges, were central to the practices and experiences of journeying through the landscapes of Italy. This is evident, for instance, in the distribution of Final Epigravettian and Mesolithic open sites in the Prealps and Alps of Lombardy, including Cividate Camuno, located on the bank of the River Oglio in the Valcamonica; Sopra Fienile Rossino, situated close to a pass on the

edge of the Cariàdeghe uplands; and Val Maione 1 and 2, distributed along a mountain ridge on the watershed between the Valcamonica and Valtrompia (Biagi and Starnini 2016).

Grimaldi's (2006) functional analysis of flint artefact assemblages found around two small lakes at Colbricon in the Lagorai mountain range in the eastern Alps (Figure 2), combined with radiocarbon determinations, help to differentiate the composition and date of two kinds of human groups and mobility strategies. The earlier Sauveterrian assemblages (ca. 9250–8750 Cal BC) were found on rocky crests and are characterised by small concentrations of flint artefacts; Grimaldi interprets them as temporary, 'logistical' camps used by a few people for specialised activities, such as observing and intercepting the movements of game animals. The later Sauveterrian sites (ca. 8850–7050 Cal BC) were situated near the lakes and are larger and more spatially structured, with occupation areas connected to activities such as butchery and hide-processing; they are interpreted as less specialised, 'residential' camps occupied by one or more nuclear families, at a time of more favourable, mild and humid climatic conditions.

>>Insert Figure 2 about here<<

Osteoarchaeological analyses have shed additional light on the mobilities of particular members of hunter-gatherer groups. For example, the identification of six human milk teeth from children aged 6–11 years in Final Epigravettian deposits at Riparo Dalmeri, located on the edge of the Asiago plateau at an altitude of 1240 m, shows that it was not just adult hunters who visited the *altipiani* (Bassetti *et al.* 1998). This might be taken as an indication of a 'residential mobility' strategy in which a whole community moved in relation to resource availability (Binford 1980). Furthermore, study of the skeleton of a young adult male, aged around 21 years, buried at Riparo di Vado all'Arancio in northern Tuscany, indicates that despite suffering a severe ankle fracture during late adolescence, this individual resumed a

mobile life for three or four years prior to his death, albeit walking in a mechanically altered manner (Holt *et al.* 2002).

Studies of artefacts and ecofacts also show that portability (up to certain limits) provided both practical and symbolic opportunities for mobile hunter-gatherers. For example, the remains of what looks like an extensive portable toolkit were found in the pit burial of an adult male at Mondeval de Sora in the Dolomite Alps, dated to the Late (Castelnovian) Mesolithic (Alciati *et al.* 1994). Numerous objects were found on and around the body, some perhaps originally placed together in pouches or bags. They comprised a small patch of ochre, perforated deer canines, numerous flint artefacts, bone and antler tools (including two points and a harpoon), some pieces of altered dolomite and small masses of a glue made of propolis and resin.

The stone artefacts from this site also testify to the carrying of raw and processed materials over significant distances: nodules and river pebbles of fine flaking flint from sources situated some 65 km to the south, and quartz from sources 60 km to the north. By comparison, in southeast Italy, high-quality Gargano chert was transported over a distance of 150 km down the Adriatic coast to the Grotta delle Mura, in preference over local alternatives (Calattini 2002). Successfully hunted game animals were carried back to camps, such as Riparo Cogola on the edge of the Folgaria plateau in the eastern Alps, either as whole carcasses, in the case of ibex, or as butchered hind- and fore-quarters for larger red deer (Fiore and Tagliacozzo 2004).

Edible shellfish were transported 12 km inland from the Ligurian coast along the Val Pennavaira to Arma di Nasino (Barker *et al.* 1990). Seashell ornaments, strung on colourful threads and worn on the body, travelled much farther—up to 100 km inland from the sea, arguably as a result of direct procurement, but potentially also via social exchange networks. Numerous examples have been found at coastal sites, including in a double child burial at

Grotta dei Fanciulli in western Liguria where numerous perforated *Nassa* mud snail shells (*Cyclope neritea*) were arranged in vertical rows across the children's waists (presumably having originally been sewn onto clothing) (De Villeneuve *et al.* 1906–19), and in the burial at Grotta d'Oriente in Sicily of an adult female who wore a necklace of eight perforated shells of cowry (*Luria lurida*), cone snail (*Conus mediterraneus*) and European thorny oyster (*Spondylus gaederopus*). At the other end of the line, abundant examples of perforated seashells, mostly tiny *Nassa* mud snail shells, were imported 100 km inland from the Adriatic coast to Riparo Tagliente in the Monte Lessini.

The maintenance of indirect social relations over even greater distances is also implied by the general stylistic similarities exhibited by portable forms of material culture across and beyond Italy (albeit with regional variations), such as evolving lithic industries and decorated 'Azilian' pebbles (Martini 1992).

A Socio-cultural Perspective

These archaeological indications of the mobility of people and things in Mesolithic Italy are convincing. However, key aspects of their interpretation can be questioned and extended, particularly from a socio-cultural perspective.

Climatic fluctuation and change were evidently influential, but they did not always determine long-term patterns of human mobility. This is becoming clear, for example, in the case of the peopling of the inter-montane Fucino lake basin in central Italy, which probably comprised part of an annual hunter-gatherer territory extending inland from the Tyrrhenian coast, following the river valleys of Latium through the Preapennine mountain group, up into the Abruzzi Apennines and their inter-montane basins. Following Early Epigravettian forays into the Fucino basin and a possible abandonment as glaciers advanced again, Final Epigravettian groups recolonised the area from around 13550 Cal BC (Giraudi and Mussi

1999). This development coincided with a rise in temperature during the Late Glacial interstadial and the retreat of glaciers. At least five of the Fucino caves were intermittently occupied in this period: Grotta Continenza, Grotta di Ortucchio, Grotta di Pozzo, Grotta la Punta and Riparo di Venere (with radiocarbon dates extending ca. 13550–9250 Cal BC) (e.g. Mussi *et al.* 2003). Thereafter, the Fucino basin remained highly attractive to human groups, despite further climate change (Mussi and Peresani 2011). A series of 17 radiocarbon dates for the stratified Final Epigravettian and Sauveterrian deposits in Grotta Continenza, which extend continuously from ca. 12,050 Cal BC to 8650 Cal BC, show that the Fucino basin (if not the adjacent uplands) was *not* abandoned at the height of the Younger Dryas cold spell (ca. 11850–9550 Cal BC), marked by short-term glacial advance and a lowering of lake levels, *nor* in the initial part of the Early Holocene, when peat deposits (dated to ca. 9650–8450 Cal BC) reveal that the Fucino was more of a marsh than a lake, with water levels kept low by a cool and moderately arid climate. Contrary to claims made for other parts of the Mediterranean (e.g. Fernández López de Pablo 2010), in west central Italy, where long-established patterns of human mobility were evidently resilient, adaptations to climate change appear to have been culturally mediated.

The materialist, evolutionary and ecological perspectives underpinning most archaeological narratives of human mobility in and beyond Mesolithic Italy can also be questioned (Pluciennik 2005). Materialism can be characterised in terms of a preoccupation with the material world (as opposed to intellectual or spiritual concepts), including an (over-) emphasis in hunter-gatherer studies on logistics, risk- and cost-minimization, optimal exploitation of seasonal resources, settlement systems and technology (and their artificial separation from social interaction, identity, ideology, ritual practice and cosmology) (e.g. Binford 1980; 1982; Perlman 1985). Evolutionary and ecological perspectives have also tended to explain cultural change in terms of strategic adaptation to the external stimuli of

environmental change or population growth. For example, Clark (2000) interpreted the lives of the Mesolithic hunters of the Trentino through a narrow, Western model of risk management (i.e. avoiding the risk of dietary and population failure), and understood long-term settlement and subsistence changes as adaptations to increasingly forested ecological conditions. (He also claimed that social processes are not visible in the archaeological record.) Various anthropological archaeologists have reacted by highlighting the social and political dimensions of hunter-gatherer mobility, which include responses to death, sorcery and other social tensions, searches for marriage partners, allies, shamans and friends, alleviation of boredom and so on (e.g. Kelly 1992; Politis 1996). To write off these differences of opinion and emphasis merely as expressions of ‘adaptive’ and ‘interpretive’ (or ‘processual’ and ‘post-processual’) archaeological thought is inadequate. Likewise, to present them as starkly incompatible alternatives is misleading. Ultimately, in failing to take account of the important realm of social relations, experiences, perceptions and values, materialist and ecological perspectives on hunter-gatherers have not done justice to the diverse lines of archaeological evidence available to us, including human burials and other forms of visual and sensory culture (Cannon 2011). There is, then, scope for a reintegrated and refocussed archaeological narrative.

Taking this socio-cultural perspective one step further, and returning to ‘the new mobilities paradigm’, I now want to highlight another dimension of mobility in Mesolithic Italy that has so far received insufficient consideration: immobility or, to be more precise, the anchoring power of special gathering places in the landscape. Time and again this power, I argue, attracted and attached people and their portable resources to places that were repeatedly constructed and remembered through mundane and ritual practices, and whose associated socio-economic tensions and contradictions may ultimately have led people to leave them. Such attachments made these potent places (Bond 2009). Indeed, the power of

these places was sometimes even stronger than the impact of environmental change. This was arguably the case, for example, at some large coastal caves in southwest Italy, including Grotta delle Soppressate, Grotta della Serratura and Grotta della Madonna (e.g. Martini *et al.* 2009), where Mesolithic human groups adapted their subsistence practices—progressively replacing terrestrial molluscs and estuarine and lagoon fish with marine species—rather than abandon these historically significant places in the face of Early Holocene rising sea levels.

Immobile Places

The seasonal journeys of Italian Mesolithic hunter-fisher-gatherers evidently incorporated a network of significant places in the landscape. These included (but were not confined to) natural caves or rock-overhangs often situated on the margins of different ecological zones. (Here, we must acknowledge a heavy research bias towards caves and rock shelters in Italy and other parts of the Mediterranean—Pluciennik 2008: 332.) At these convenient places, small and sometimes larger groups of people could shelter from the weather, perform work and rituals, eat and rest together, whilst remembering the past and planning for the future. In other words, cave life was not simply a logistical exercise in residence, storage, resource exploitation and social aggregation; its socioeconomic dimensions were often underpinned and enriched by a variety of symbolic actions, which made use of colourful material props to help the occupants of these places question, make sense of and order their world, including over space and time. By extension, movement between these places structured the hunter-gatherers' cultural, even sacred, geographies.

Let us reconsider just a few of the well-known caves referred to above and elsewhere that have been used by paleoecologists to support the grand materialist narrative of human mobility in Mesolithic Italy. The cave at Grotta Polesini, for example, has much more to it than its characterisation as a winter season base camp, to which fauna were brought back

from a variety of habitats (e.g. Barker 1975: 122). The wide range of symbolic materials deposited here, many visibly stained with red ochre, are indicative of seasonally repeated, socialized and communicative activities. Human remains represent a minimum number of 14 individuals laid to rest here. Ornaments were made from deer canines, seashells and fish vertebrae. Pebbles and bones were engraved—sequentially and cumulatively—with geometric and naturalistic motifs, the latter interpreted as aurochs, horses, rabbits and hares, deer and a wolf; in some cases, the animals appear alongside tiny markings that have been revealed by microscopic analysis to depict feathered darts (Marshack 1969).. Some pebbles were also painted with red ochre, in one instance to depict two human stick-figures (Ceruleo and Radmilli 1980).

At Grotta del Romito, located 25 km inland from Grotta della Madonna on the Tyrrhenian coast of Calabria, the rich and spatially integrated Final Epigravettian occupation is marked by numerous hearths, pits, extensive accumulations of animal bones and stone artefacts, engravings of a large aurochs and abstract linear motifs on large boulders, as well as by the burials of eight individuals accompanied by red deer canine and marine shell ornaments (e.g. Martini *et al.* 2012). The Conca d'Oro caves likewise shed light (and darkness) on much more than the history of food preparation and consumption, and the working of skins, wood, bone and stone in the caves. Rituals were also performed in the very same caves, albeit on special occasions and in special areas, as indicated by human burials and wall engravings of large game animals (deer, bovids and equids), humans and abstract linear motifs.

Despite natural transformation processes, including occasional rockfalls, selected caves were culturally transformed into reliable, enduring, memorable landmarks. Their occupants invested in them, materially and conceptually. Visitors recurrently established hearths, pits and even post-built structures, not to mention layers of more generic

occupational debris, and repeatedly installed symbolic decorations and deposits during the course of rituals of life and death. In these ways, such places and their human occupations became cumulatively filled with the residues of past practices, values and memories that, far from being ignored by future generations, drew people back to reenergise these meaningful places, time and again.

It is worth considering some of the different kinds of rituals performed in these thought-provoking places in more detail, especially to explore further the twinned theme of mobility and immobility and its inherent contradictions. Acknowledging the risk of overstepping the limits of customary archaeological inference and rhetoric (especially those maintained in hunter-gatherer studies), I propose that at least five kinds of rituals can be identified: mortuary rites, foundation rites, other rites of passage possibly involving initiation, more complex ritual and artistic performances and other forms of symbolic installation.

Mortuary deposits, which can be understood as the material outcomes of important rites of passage, are commonly found in Mesolithic caves and rock shelters in Italy. Here, visitors came and left, but the ancestral dead were meant to stay still, their bodies regularly buried in pits, weighed down by blocks of stone and sometimes also marked above ground. For example, the symbolically rich burial of an adult in Riparo Tagliente was evidently bound up with life and death in and around this special place during its Final Epigravettian occupation (ca. 14,450–11,750 Cal BC), which seasonality data indicate was used especially during the spring and summer (Guerreschi and Veronese 2002). The body of a young adult male was buried in a supine position in a pit, together with portable elements of visual culture placed on and around his body—a pebble coated with traces of ochre between his feet, a fragment of the horn of an aurochs near his right thigh and a large stone engraved with representations of a lion and of an aurochs horn on his legs together with other stones (Figure 3).

>>Insert Figure 3 about here<<

A strikingly similar Final Epigravettian mortuary deposit was installed at Riparo Villabruna A, situated on the edge of the Dolomite Alps, its location marked by six vertical stripes painted in red ochre on the rock shelter wall (Vercellotti *et al.* 2008). Some long-lived and well-resourced sites were even used as burial places time and again, leading to the formation of archaeologically-defined cemeteries. The Final Epigravettian occupation of Caverna delle Arene Candide in western Liguria offers a prime example. This cave is situated on a hillslope overlooking the Ligurian Sea, and probably lay in the ecologically rich lowland part of an annual hunter-gatherer territory extending inland along wooded valleys. The human remains of around 20 individuals were found during old archaeological excavations (Cardini 1980; Formicola *et al.* 2005). These have been assigned to both sexes, and to ages ranging from early infancy to mature adulthood. Sub-adults appear to have been marked out by exclusive association with the tails of squirrels (*Sciuridae*). Primary burials took the form of single and double inhumations, including one of a four-to-five-year-old child placed on the left side of a 30-year-old man, presumably to signify a close interpersonal relationship. Corpses were laid to rest in a supine position with arms extended along their sides. Disarticulated piles of human bones, however, also indicate secondary burial rites, as well as recurrent encounters of the living with the remains of the ancestral dead (Nilsson Stutz *et al.* 2013). Accompanying grave goods included perforated deer canines and marine shells of limpets (*Patella* and *Pectunculus*) and Nassa mud snails, crescent-shaped pieces of shell, coloured oblong pebbles, ochre stained grinding stones, bone points, the wing bones of corncrake (*Crex crex*) and Alpine chough (*Pyrrochorax graculus*), and the mandibles and limb bones of beaver (*Castor fiber*) and European hedgehog (*Erinaceus europaeus*). Some well-preserved antlers of elk (*Alces alces*) with intentionally cut roots, one with ochre-filled punctuated decoration, were not directly associated with the burials, but might have been

mounted to mark out a mortuary area in the cave, and to distinguish it from contemporary living areas. Mortuary practices are also likely to have taken place at Mesolithic open-air residential sites, as at El Collado on the Iberian Mediterranean coast, where the dead were repeatedly buried for over 200 years (Gibaja *et al.* 2015). In these persistent places, living people and ancestral beings might have been perceived as cohabitants. Territorial claims to productive, reliable and concentrated resources in the environs may also have been made through them (c.f. Rowley-Conwy 1998).

Foundation rites were an occasional feature of new occupations, helping people stake claims to selected natural caves and rock shelters as culturally and socially meaningful places within wider territories. A good example is provided by Grotta San Teodoro, a large cave situated about 2 km inland from the north coast of Sicily, some 90 km west of the Strait of Messina. Its first human occupation is radiocarbon dated to ca. 12850 Cal BC, placing it among the earliest known sites belonging to the Late Pleistocene phase of Sicily's history (Leighton 1999; D'Amore *et al.* 2009). In addition to occupation deposits, the bodies of seven adult male and female humans were buried on the eastern side of the cave during its first phase of occupation, their burial perhaps enhancing the historical significance of this previously unknown place and islandscape in the social memory of a pioneering group of people. Certainly, the mortuary deposits were highly visible: whole bodies were placed supine or on one side; they were accompanied by deer antlers and bones, including a necklace of perforated deer canines; and, once covered with earth, the burials were sprinkled with a colourful layer of red ochre. Interestingly, a stone projectile point was embedded in a bone of one of the women, presumably reflecting conflict within or on the margins of her social group, and the potential for mobility to avoid it. Another example is offered by Riparo Dalmeri, an upland rock shelter in the eastern Alps occupied during the late summer and autumn, where hunting focused mainly on ibex. Its initial (Final Epigravettian) phase of

occupation (ca. 11450–10950 Cal BC) was marked by the deposition of 267 painted blocks of local oolitic grainstone (e.g. Dalmeri *et al.* 2011; Gialanella *et al.* 2011). Their size averages $15 \times 11 \times 6$ cm. Three-quarters of them were found with their painted surfaces face-down, which could reflect an intentionality behind their deposition. They were decorated with paint composed of wax and red ochre, the latter produced artificially through the heat treatment of locally available goethite. Most of the decorated stones carry geometric motifs, but 17% are decorated with figurative representations, generally of animals (Figure 4), identified as ibex or chamois, deer, wolf and aurochs, but also a few exhibiting anthropomorphic figures and handprints. It is hard to separate the affordances of the caves and their surroundings from the imaginative first impressions of their journeying visitors.

>>Insert Figure 4 about here<<

Evidence of ritualised bodily movements into and out of the darkest zones of caves might be interpreted in terms of rites of passage and, more specifically, as core elements of symbolically rich initiation rites that exploited the sensorially stimulating, spatially sequenced features of these evocative places. A good example is provided by Tana della B  sura, a large cave complex with corridors extending over 250 m, located in western Liguria (Molleson *et al.* 1972). Late Glacial visitors left many footprints on the floor. They lit their way in this dark space with torches of pinewood (*Pinus larico*), and they marked their visit(s) by throwing wet pellets of clay against the walls and scoring their fingers in mud. The interior of Grotta di Porto Badisco, a labyrinthine cave complex located on the east coast of the Salento peninsula in southeast Italy, also appears to have been used in a similar way. Hunter-gatherers used the entrance of the cave as a base to hunt and consume European ass, red deer and aurochs (Guerri 1992). They also decorated the walls of one of the cave's interior corridors with engravings, red painted stripes and finger marks gouged into the soft calcium carbonate. A comparable example is offered by Grotta del Genovese, today located

on the islet of Levanzo but originally on part of a peninsula joined to Sicily (Graziosi 1962). During its Final Epigravettian phase (ca. 9250–8850 Cal BC), the well-lit entrance zone of the cave was occupied by human groups who hunted aurochs, equids, red deer and wild boar. A block of stone found in this part of the cave was engraved with the image of a bovid. But another 28 zoomorphic figures (representing bovids, equids and deer) and five anthropomorphic figures were also identified in the much less accessible, dark, inner chamber, which was presumably visited by small sub-groups of people as a more secluded place of ritual performance and religious disclosure. The ‘politics of mobility’ (i.e. the reflection and reinforcement of power relations through mobility and control over mobility—Cresswell 2010) was arguably enacted and controlled by social groups and ritual leaders engaging with these supernatural places.

A more complex set of ritual actions and perceptions may be indicated by the set of engravings made on the rear wall of Grotta Addaura in the Conca d’Oro. The main ‘frieze’ extends over 2.5 m, and includes 16 humans and about ten animals. Four stages of execution have been proposed on the basis of super positioning and style (Graziosi 1956). One of these stages involved the relatively deep engraving of eight or more human figures arranged around a pair of horizontal figures (Figure 5). All are male (with a penis or penis-sheath, and occasional beard), with two or three possible exceptions (Pluciennik 1994, 1998). The heads are hidden by forms that have been interpreted either as voluminous hairstyles or as masks. This ‘scene’ has been variously (and speculatively) interpreted as representing a dance, an acrobatic performance, a male initiation rite involving an act of homosexual copulation and the ritual torture and killing of two captives. Beyond this group, other human figures include striding men holding what appear to be a spear over one shoulder, and a probable woman (with breasts) carrying a load on her back. The whole representation is infused with dynamic bodily postures and proximities, which might be interpreted not only as a reflection of ritually

performed movements but also on quotidian mobilities. A degree of dynamism is also inherent in this work for, although the ‘scene’ was set in stone, it was also revised during the course of successive visits and artistic performances. In this way, the politics of mobility could potentially be not only revealed and contemplated in this place but also challenged.

>>Insert Figure 5 about here<<

Other kinds of dynamic ritual installation in caves and rock shelters are represented by singular and repeated special deposits of symbolic portable objects, some intentionally fragmented—ritual actions that reinforced the values of these sites as communicative social spaces and as memorable, historically significant places in the landscape. A particularly large number and variety of portable elements of visual (and tactile) culture were deposited in the Castelnovian levels at Riparo Gaban in the Adige Valley (e.g. Bagolini 1979; Kozłowski and Dalmeri 2000). These included pieces of red ochre, shell ornaments, an ivory pendant, a bead made from a large fish vertebra, an engraved and polished cylindrical bead made of red deer antler, a spatula made of red deer antler engraved with geometric motifs, three fragments of bone covered by engraved lines and a unique female human representation carved on the end of a deer antler (Figure 6). Breasts, a swollen belly with arms stretching down the sides and legs can be readily identified. This object was found in fragments at the bottom of a pit which also contained the fish vertebra bead. It might therefore have been involved in a symbolic burial.

>>Insert Figure 6 about here<<

Comparable acts of deposition were performed by human groups in southeast Italy, especially at caves and rock shelters in the Salento peninsula in Apulia. These depositions are characterised by accumulations of portable and parietal artworks, decorated initially with traditional figurative representations and linear motifs and later with more sophisticated abstract linear-geometric motifs (Skeates 2005: 53-74). For example, during the ‘Mesolithic’

or ‘Epiromanellian’ occupation phase of Grotta delle Veneri, some 500 decorated stones (and bones) were deposited (Cremonesi 1987; Possenti 1997). These were engraved, especially with bands of lines that wrapped the stones like woven textiles, some of which were then coated with red ochre. Some 96.6% of these objects were then intentionally fragmented. Through repeatedly performing such acts, mobile groups of hunter-gatherers might have seemed moored to these places.

Time and again, then, these ritualized places in the landscape attracted and anchored mobile groups of hunter-gatherers to them, by providing well-placed and meaningful shelters where people could come together to perform, celebrate and order their daily lives. But did the combined ecological and socio-cultural pulling-power of these places encourage visitors to stay a little longer, even to the extent of remaining at a few of them year-round? Was an ideology of immobility promoted there? The question of sedentism in the Late Mesolithic of Italy has been debated on and off for decades, particularly to inform questions surrounding the ‘Neolithisation’ of the central Mediterranean region (e.g. Barker 1999). Current archaeological evidence, however, suggests that it is unlikely that the majority of these sites became places of sedentary settlement, occupied permanently throughout the year by larger groups of people. Furthermore, we are advised not to think of ‘sedentism’ as an absolute condition, but rather as a relative and variable one (Kelly 1992).

Rare exceptions during the climatic optimum of the Atlantic phase might have been caves located in richly resourced lake-basins and coastal areas. For example, the extensive evidence from the Fucino basin, including from recent excavations at Grotta del Pozzo—where trout were caught especially in the spring, berries and fruit consumed in the late summer and early autumn and a midden of edible land snails (*Helix delpretiana*) and large mammal bones accumulated (e.g. Russ and Jones 2009)—offers some support to Radmilli’s (1960) suggestion of greater Mesolithic sedentism here, based on the hunting of

small game and the collection of molluscs and plant foods in this ecologically rich area.

However, it remains equivocal.

Grotta dell'Uzzo represents another classic example. This is a very large cave situated on the San Vito lo Capo peninsula, attached to the northwest coast of Sicily (see Mannino *et al.* 2004–2005; 2007, and references therein) (Figure 7). A variety of scientific analyses suggest that, during the Later Mesolithic (ca. 8450–7350 cal BC), the human occupants' diet became more diversified, combining animal protein with marine food and fruits, berries and nuts. Among the animal bones, red deer remained dominant, but wild boar became more common—the latter killed between late summer and early autumn. Marine resources were also consumed in greater variety and quantity. Monk seal (*Monachus monachus*) and cetaceans made their first appearance in the stratified deposits. Fish increased, especially grouper (*Epinephelinae*)—caught in all seasons of the year, according to biometric analysis of their vertebrae. And inter-tidal molluscs dramatically increased in number, also gathered in each of the seasons of the year. It is not clear whether this represents year-round human occupation of the cave or regular visits through the year, but a Late Mesolithic floor, traced over 5 sq m and associated with a hearth and a fire-hardened clay platform, increased amounts of occupation debris and a decline in the number of pellets dropped by predatory birds inhabiting the cave, support the idea that the cave was now occupied by people for longer periods, potentially in larger gatherings. The installation of several human burials in the cave during this phase can likewise be interpreted in terms of a greater social and symbolic investment in this significant place. On balance, however, I would suggest that the culturally deep-rooted hunter-gatherer urge to move on remained stronger than any social demands to settle down and feel at home in these seemingly immobile dwelling places in Mesolithic Italy.

>>Insert Figure 7 about here<<

Conclusion: Mesolithic (Im)mobility over Space and Time

This study has sought to question and extend materialist, evolutionary and ecological narratives of hunter-gatherer lifeways by presenting a revised model of Final Upper Palaeolithic and Mesolithic Italy that incorporates socio-cultural perspectives on mobility and place making. The widespread archaeological remains left by Late Pleistocene and Early Holocene hunter-gatherers in Italy confirm the existence of mobile and communicative members of multi-sited communities and task-groups, carrying with them (and probably exchanging) portable resources ranging from stone and bone tools to butchered animals to threaded seashells. Journeying by foot and boat across the seasons of the Mediterranean, in relation to resources and other people, gave purpose and rhythm to their lives.

Their networked routes traversed and defined some extensive socioeconomic territories, notably in Liguria, Corsardinia and adjacent mainlands, northeast Italy, Tuscany, west central Italy, southwest Italy and northern Sicily. These cultural geographies were resilient, but also strategically expanded and contracted by diverse human groups in response to postglacial ecological changes, especially in the mountains. Routeways were punctuated and sacralised by a variety of dynamic and meaningful places, energised by shared human activities and by ancestors and other supernatural forces.

Rock shelters and caves stand out as archaeologically rich examples, made memorable by the repeated performance of subsistence-related practices and a variety of complementary symbolic displays, including foundation rites and rites of passage. More specifically, control over bodily access to inner spaces within relatively complex cave systems could have been used to reinforce power relations, particularly between small numbers of participants and ritual leaders. Such socioeconomic activities lent these places an anchoring power, but never to the extent of immobile sedentism. Instead, a combination of

ecological and social opportunities and tensions ensured the continued mobility of hunter-gatherers in and around Italy.

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Figure Captions

Figure 1. Map of sites mentioned in the text: 1: Grotta dei Fanciulli; 2: Arma di Nasino; 3: Tana della B sura; 4: Caverna delle Arene Candide; 5: Civate Camuno; 6: Val Maione 1 & 2; 7: Sopra Fienile Rossino; 8: Riparo Tagliente; 9: Riparo Gaban; 10: Riparo Cogola; 11: Riparo Dalmeri; 12: Riparo Villabruna A; 13: Colbricon; 14: Plan de Frea II; 15: Mondeval de Sora; 16: Riparo di Vado all'Arancio; 17: Grotta Polesini; 18: Fucino caves: Grotta Continenza, Grotta di Ortucchio, Grotta di Pozzo, Grotta la Punta & Riparo di Venere; 19: Grotta delle Mura; 20: Grotta di Porto Badisco; 21: Grotta delle Veneri; 22: Grotta delle Soppressate; 23: Grotta della Serratura; 24: Grotta della Madonna; 25: Grotta del Romito; 26: Grotta San Teodoro; 27: Grotta Addaura, Grotta Niscemi and Grotta della Molar; 28. Sagana; 29: Grotta dell'Uzzo; 30: Grotta del Genovese; 31: Grotta d'Oriente.
Map by Yvonne Beadnell.

Figure 2. Colbricon lakes. Photo: Maurizio Ceol <http://creativecommons.org/licenses/by/3.0>

Figure 3. Final Upper Palaeolithic human burial, Riparo Tagliente, displayed in the Museo Paleontologico e Preistorico di Sant'Anna d'Alfaedo. Photo by Thilo Parg.
<http://creativecommons.org/licenses/by-sa/4.0>

Figure 4. Final Upper Palaeolithic stone showing painted image of an animal with a tail and four legs, Riparo Dalmeri, ca. 13.5 cm long. Photo by Thilo Parg,
<http://creativecommons.org/licenses/by-sa/3.0>

Figure 5. Detail of engraved 'scene', Grotta Addaura. The human figures measure between 13 and 23 cm in length. Photo by Robin Skeates.

Figure 6. Late Mesolithic antler figurine, Riparo Gaban. 10.2 cm long. Drawing by Yvonne Beadnell.

Figure 7. Grotta dell'Uzzo. Photo: Masur.
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