

The 20th century invention of ancient mountains: the archaeology of highland Aspromonte

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Abstract

The high mountains of the Mediterranean are often considered as refuges of ancient traditions, particularly of pastoralism and brigandage. Is this image true? This paper reports the first systematic archaeological research on Aspromonte, Southern Calabria. Archaeological, cartographic and air photo evidence suggests that people used the high mountains in all periods from the Neolithic onwards. However, early usage was low-intensity and probably for special purposes such as iron smelting, charcoalburning and logging; only in the Classical Greek period was there sustained effort at inhabiting higher areas. The real development of the mountains came in the late-19th and 20th centuries. From the 1920s onwards, there were large-scale state-fostered projects for economic exploitation of forests, political control of territory, and creation of a recreational landscape. These endeavours tied into modernist ideas of the state, as well as period concepts such as Alpinism and healthy outdoor recreation for city dwellers. Ironically, as soon as these modern efforts made the high mountains accessible, they were assigned a chronotope, and were reimagined as the exemplification of an ancient way of life.

Introduction: the high mountains as the last refuge of ancient traditions

In 1912, the eccentric English traveller Norman Douglas crossed the Aspromonte massif of Calabria on foot. To him, as to others, ascending the mountains also involved going back in time. In Aspromonte, “one of the last refuges of living Byzantinism” (Douglas 1938: p. 387), Douglas admired the trackless mountains and majestic forests deserted of humanity, the bucolic herders harkening back to an ancient tranquillity, a view in part derived from classical writings. An archaic lawlessness also prevailed, beyond the reach of the state:

“Aspromonte, the roughest corner of Italy, is no place for misunderstandings; the knife decides promptly who is right or wrong, and only two weeks ago I was warned not to cross the district without a carbineer on either side of me.” (pp. 349)

Less poetic observers than Douglas, both Italian and foreign, have consistently depicted Aspromonte in similar terms. Throughout the 20th century and up to the present, perception of Calabria’s high mountains has focused upon two images: survival of a traditional peasant society, particularly of pastoralism, and lawlessness, particularly of brigands. For both images, both local history and public information projects a continuity from present images of rural land use and rural criminality (such as the notorious ‘ndrangheta kidnappings using Aspromonte as a hideout in the 1970-80s) back into a deep past.

What is this image based upon? From an archaeological viewpoint, surprisingly little. Historical documentation for settlement and land use in this area is overwhelmingly biased towards inhabited lowland areas below 1000m. Particularly before the 20th century, historical records for mountain areas above 1000m are almost non-existent. Archaeological research has potential to remedy this, but virtually all archaeological work in the area has focused on lowland areas, particularly the densely settled coastal strip. There has never been any systematic archaeological exploration of the mountain zones of Aspromonte which would allow us to evaluate how far back and for what purposes humans have actually used these mountains and what purposes they have used them for. Mountainous area present both unique challenges and opportunities for human occupation and unique challenges for archaeological research (Grimaldi et al. 2016); in southern Europe, this is often tied up with the archaeology of prehistoric and historic pastoralism. There is an increasing body of diachronic research studying the changing ways people have used Europe’s high

mountains, particularly the Alps and Pyrenees, up to the 20th century, for pastoralism, specialised production, transit and other uses (Walsh et al. 2014; Putzer et al. 2016; Carrer and Angelucci 2018; Berruti et al. 2016; Gassiot Ballbè et al. 2016; Stagno 2017; Moe and Fedele 2019; Christie et al. 2007; Meintjes 2004; Carrer 2013). No such work has been done in Aspromonte. This paper presents the results of the first such fieldwork supplemented by information from historical sources, maps and aerial photographs. It is the first work in the region to contribute to a growing body of historical archaeology on rural and mountainous areas of Europe, in particular of state intervention and the massive social changes of the 20th century (Kuijt et al. 2015; Samuels 2010; Pluciennik, Mientjes, and Giannitrapani 2004).

Regional background and methods

Aspromonte, the very tip of the Italian peninsula, is the last outcrop of the Apennines, a mountainous bump about 50km across whose provincial capital is Reggio Calabria, on the Straits of Messina (Figure 1). It includes a narrow coastal strip which rises steadily towards an inland massif about 30km across. Its highest point is Montalto (1960m above sea level). Virtually all modern and historic towns lie below 1000m altitude. The single exception, Gambarie (1350m) is a 20th century foundation discussed below. The landscape is strongly zoned by altitude. Roads, railroad lines, and modern settlement are concentrated along the coast, which is hot and dry; in recent decades, the most productive farming here is heavily irrigated cash-cropping for citrus fruits. Traditional Mediterranean farming coincides with a band of historic settlement up to about 1000m, which is the current viable limit of olive trees. Between 1000m and about 1300m are rugged mountains interspersed in places with small, moderately level plains or “campi” which offer a well-watered, cooler environment for mixed farming, particularly cereals. From 1300m up to the crest of Aspromonte, there is almost no modern or historic settlement, the environment is cool and cloudy with frequent springs and streams, there is considerable snow cover in winter, and the land is thickly forested, mostly with pine and beech. These latter two zones, above 1000m, are the principal focus of this research.

Since 1997, the Bova Marina Archaeological Project has been exploring the landscape extending inland from the coastal town of Bova Marina; this includes a field survey conducted according to standard Mediterranean field survey techniques. Areas surveyed extend up to about 1200m altitude and about 12 km inland. However, like all archaeological efforts in the area, this survey leaves the higher centre of Aspromonte completely uninvestigated. Few sites are known from antiquarian and amateur finds in the high mountains (Picone Chiodo 2005). Thus, in 2014, we began a second field survey, covering a rectangular area extending north-south from Gambarie to Bova, and west-east from Gambarie to beyond Montalto (Figure 1).

Surveying a thickly forested, steeply mountainous landscape challenges traditional survey methods. In most places, there is little or no ground visibility, and walking in straight, parallel transects is not possible. Moreover, intensive, systematic field-walking requires some previous knowledge of the archaeological landscape and invests intensive work in a restricted area; it does not provide an efficient strategy for a first exploration of a large, entirely unknown landscape such as this. In such circumstances, we used methods of less structured reconnaissance, much as recommended by Gassiot Ballbè et al (2016: 37): “Considering the almost absence of a priori information about the archaeological remains in mountain areas, the most reasonable approach seems to be to carry out extensive, undirected, surveys trying to cover as much territory as possible, identifying and recording as many vestiges as possible. This strategy would create a first set of data

about the about the human occupation of a certain mountainous space, with the possibility of later redirecting the survey toward specific questions/areas/evidence.” We systematically inspected landscape areas chosen according to two criteria:

1. 195 areas were chosen because the ground surface or stratigraphy were visible (Figure 2a): this included road cuts, unpaved road surfaces, open roadside areas, ski slopes, trails, eroded rocky peaks and clearings, disturbed areas around modern buildings and works, recreational areas, tree throws, and even areas rooted up by wild boars. While this may bias findings towards modern features creating land disturbance, areas which attract modern use such as peaks, pathways and springs may have been equally attractive for ancient people, and modern disturbance often unearths earlier features which would otherwise have remained buried; prehistoric, Classical and medieval finds were made on hiking trails, roads, springs, picnic areas and even a military base. Moreover, areas such as eroded forest clearings presumably have an equal chance of yielding finds from all periods.
2. Targeted inspections were made at 40-50 areas where potential features of interest were suggested by maps, aerial photos, toponyms, or discussion with knowledgeable local people. Beyond these, about two dozen further structures are identified satisfactorily in these documentary sources but not visited for practical reasons. These sources allowed us to check changes in forestation, roads, houses, mills, and other structures and features, as well as identifying landscape features such as springs which might attract human use. The principal sources used were:
 - a. the 1870 IGM (Istituto Geografico-Militare) 1:50000 scale topographic maps (the first topographic maps of the area, made soon after the unification of Italy as a modern state).
 - b. Royal Air Force air photos held in the National Collection of Aerial Photography (Edinburgh), made in August-September 1943 immediately before the Allied invasion of the Italian peninsula.
 - c. the 1957 IGM 1:10000 scale topographic maps, the first made using aerial photography, and the most detailed available
 - d. the 1997 IGM 1:25000 scale topographic maps
 - e. 2014-2019 Google Earth aerial photographs

At each area visited, all visible ground surfaces were examined for archaeological remains. In total about 1.5 km² of areas such as clearings were walked over our cumulative six weeks of fieldwork, almost all in small, irregular patches. We also walked approximately 50 km of linear features such as roadsides, unpaved roads, hiking trails, and ski slopes. Finds were identified and registered in the field. We recorded all ceramic finds, metal objects, and architectural remains. For practical reasons, we did not record the numerous recent campfires, scatters of broken glass, and plastic bottles, giving an effective cut-off for our surface finds of probably sometime in the 1970s. By far the most common find was a small handful of eroded modern terracotta sherds, often from water jugs or food vessels, representing short-term use of a particular spot in the last century or so. But enough finds from other periods were found to suggest the method was effective in assessing archaeological presence generally.¹

The results of this survey provide the basis for an archaeological account of land use in Aspromonte, which can be used to critique historical images of the area.

¹ Most of the findspots were small scatters of material, sometimes comprising one or a handful of artefacts. Our policy was to record finds in the field (cf. Figure 3, Figure 6) rather than collect them.

Use of the mountains: before the 19th century

Prehistoric: Neolithic (6000-3500 BC) and Bronze Age (2400-1000 BC)

Prior to this research, only three prehistoric sites were known in the region of highland Aspromonte studied: a Bronze Age site at Monte Perre (about 1300 m) (Bonfà 2015), an isolated Neolithic axe found somewhere on Monte Basilico (above 1400m (Salerno and Pessina 2004)) and a Neolithic obsidian core found by the Bova Marina Archaeological Project field survey (director: David Yoon) at about 1100m in the Campi di Bova. Our survey added 6 others (Figure 2b), including non-diagnostic stone flakes at Nardello and at Caddeo (both above 1800m), a Neolithic blade above Africo (about 1250m), an obsidian bladelet and flint blade at Porto Aposcipo (1350 m) (Figure 2b, Figure 3a, b), and possible Bronze Age pottery at two locations north of Gambarie (about 1350m). Possible prehistoric sherds were also found at two other locations. These finds suggest that people in all prehistoric periods used the mountains at least sporadically. Given the steep terrain in which surfaces are often either eroded or buried under colluvium, and the fragile nature of low-fired prehistoric pottery, it is difficult to say much more. But, except for Monte Perre and Porto Aposcipo, all of these are isolated finds; the prehistoric record is sparser here than at lower altitudes which are equally steep and exposed, suggesting perhaps sporadic or special-purpose use of the high mountains.

Greek

One of the most remarkable aspects of the archaeology of Aspromonte is the series of small, fortified Greek-period sites encircling the massif between 1000 and 1300m (Foxhall and Yoon 2016). This highland settlement complements the Greek cities, towns, villages and isolated rural sites thickly populating the lowland coastal strip and forming part of the heartland of *Magna Graecia*. Beyond the excavated fortified largely Greek sites, San Salvatore (located above Bova at 1260m (Foxhall and Yoon 2016)), Serro di Tavola (located above Sant'Eufemia (Brizzi and Costamagna 2010)), Monte Palazzi (located northwest of Locri (Visonà 2010)) and the more indigenous Palazzo (located near Zervò, above Oppido Mamertina (Agostino and Sica 2009)), half a dozen others are known (Picone Chiodo 2005; Foxhall and Yoon 2016). Almost all lie near the cultivable plateaus known as *campi* (1000-1300m). Traditionally, these sites have been interpreted as military outposts built during wars between the Greek cities of Rhegion and Locri, but this interpretation is dubious; they date to many different moments between the Archaic and the Hellenistic, some (e.g., Palazzo) were indigenous sites unaffiliated with Greek cities, and it is anachronistic to suppose that Greek *poleis* would have maintained formal boundaries or a fixed military presence so far up in the mountains. A more convincing view is that such sites represent fortified settlements established by powerful private factions attempting to exploit mountain resources and the fertile, well-watered farmlands on the *campi* plateaus. Although they used Greek-derived material culture, they need not have been "Greek" in ethnic identity in the same ways as the coastal urban centres, but may have represented a range of people from Greek, indigenous and mixed backgrounds (Foxhall and Yoon 2016).

The highland survey adds substance to this picture by revealing non-fortified Greek sites in the high mountains (Figure 2c, Figure 3c, d). Three sites (Pino di Tommaso at 1390m, Ferraina B at 1400 m, and Monte Basilico 3, at 1350m) may represent unfortified living sites of some kind; the former yielded generic Classical cooking wares, and the latter two diagnostic black-gloss cups. Ferraina B may be associated with industrial production, perhaps of iron. The highest known Greek site to date (on Monte Basilico at 1514m) is probably a Hellenistic rural sanctuary at a mountainside spring a kilometre upslope from settled areas; a sherd from this site with crystalline black encrustation suggests activities such as the tapping and processing of pitch from pine trees. Of all ancient periods, the Greek period represents the only concerted attempt to exploit the mountains, not only through special purpose sites but through agricultural settlement as well.

The presence of a likely sanctuary site in the high mountains also provides a material manifestation of the ways in which ancient classical culture conceptualised and to some extent romanticised the high mountains as a key element of their cosmos (McInerney and Sluiter 2016). The importance of mountains and the complex beliefs surrounding them are well documented in a long literary tradition (Buxton 2016; König 2016). There are both positive and negative aspects of mountains in this line of classical thought. For Greeks and Romans the mountains were untamed, undomesticated places of both wildness and purity, inhabited by wild people, wild animals and unpredictable supernatural beings who could be helpful, dangerous, or simply present, such as the nymphs believed to inhabit springs. The mountains were places where normal social practices might be put on hold (as in Euripides' *Bacchae*, where Pentheus is savagely torn apart by maenads, the wild women followers of Dionysos, whose mountain connections are suggested by his garlands of ivy). Simultaneously, these high and remote places inspired awe and were believed to be untainted by the degeneracy and corruption of urban life. Here, people came face-to-face with deities, as in the case of the long-distance runner Pheidippides who was sent as a messenger from Athens to Sparta to report the defeat of the Persians at the Battle of Marathon in 490 BCE. On Mt Parthenion, above Tegea in the high mountains of the central Peloponnese, he reportedly met the god Pan, "who called him by name and told him to ask the Athenians why they paid him no attention in spite of his friendliness towards them and the fact that he had often been useful to them in the past, and would be so again in the future" (Herodotus 6.105). Shortly after the Persian Wars, the Athenians did indeed establish a shrine of Pan on the Acropolis.

Strabo drew extensively upon and augmented this classical literary tradition. As the writer of a geography of empire implicitly promoting the Roman project of imperial conquest and domination for the first emperor, Augustus, it is not altogether surprising that the taming of mountains to bring them under (state) control features strongly in Strabo's representations of mountains (König 2016: 47-9). Although Strabo's itinerary takes the form of a sea voyage around the coast, the mountainous interior of the Aspromonte massif shaped his perception of the landscape of Calabria, for example in portraying the cape of Leukopetra on the southernmost coast as the terminal point of the Apennines (Strabo 6.1.7). He refers specifically to the exploitation of forest products in the woodlands around Mammertion (Oppido Mamertina, Strabo 6.1.9), a territory inhabited by the Brettii, a people he considered as neither Greek nor Roman. This body of classical writing focused on mountains clearly had a significant impact on how classically educated travellers and writers in the 19th century viewed the mountains of classical lands (Hollis 2019, <http://mountains.wp.st-andrews.ac.uk/category/ancient-responses/>), as König's and Hollis's project '[Mountains in ancient literature and culture and their postclassical reception](http://mountains.wp.st-andrews.ac.uk/)' (<http://mountains.wp.st-andrews.ac.uk/>).

Lowland Roman settlement in the area includes a well-defined series of large farm sites (sometimes termed villas) located along the Roman coastal road, and a less-known system of small, dispersed inland sites found up to 800-1000m which probably represent agricultural activity areas which may or may not have been linked to the larger villa-type sites. Above this altitude, Romans would have used the highland areas of Aspromonte for forest resources, particularly timber and pitch. However, their archaeological presence in the high mountains is elusive (Figure 2d, Figure 3e). Two sites north of Africo at 753 and 1060m altitude yielded domestic assemblages (one with African Red Slip) and probably represent the most inland extension of small habitation sites. The furthest inland site, Porto Aposcipo (15 km inland, 1350m) may represent an industrial site of some kind.

Medieval

Settlement in the area changes dramatically between the late Roman period and the medieval period. As elsewhere in Italy, there was a shift away from coastal villages with the foundation of inland hilltop towns replacing them; these include Palizzi, Bova, Africo, Roccaforte del Greco, Roghudi, Amendolea, San Lorenzo, Condofuri, Pentedattilo, Bagaladi, Montebello Ionico and Motta San Giovanni. The oldest of these, Bova, probably dates to the 9th century, but most are later medieval or early modern foundations. While traditional historiography ascribes the move from coastal to inland hilltop towns to an attempt to avoid North African raiders and malaria, such inland sites probably represent a new, inward-looking political order. Yet the area formed part of feudal hierarchies stretching across Southern Italy, and it remained connected both to long-distance trade networks along inland paths. It also formed part of far-reaching Byzantine and later Catholic ecclesiastical networks, and church and monastic sites are known from at least the high medieval period onward.

Even with the new inland, hilltop towns, the inhabited medieval world remained mostly below 1000m or so. At 900m, Bova is the highest town. Even the most inland towns known, such as Africo (690m), Roghudi (450m) and Roccaforte del Greco (983m), are lower than this, often located along river valleys that penetrate far inland among higher mountains. Documentary sources suggest that the high mountains of Aspromonte provided forest products, notably large timbers for building, some of which were exported as far as Rome. But material evidence of medieval presence above 1000m is thin. Our survey located only two finds of medieval pottery (an isolated sherd at Mano di Madda, 1671m, and some likely sgraffito and glazed wares at Ferraina A) (Figure 2e, Figure 3g). Even considering that medieval pottery is often not distinctively identifiable, and that medieval settlement throughout this area seems to have been strongly concentrated around towns rather than dispersed in the countryside, use of the high mountains seems to have been light-touch rather than intensive. Probable medieval frequentation was found at Materazzelli (1800m), in the highest, central mountains. Here, a scatter of late Roman/ early medieval tile was found. It contained at least three separate types of tile (Figure 3f), suggesting materials had been scavenged or recycled from several places to create a small but well-built structure, possibly a small, isolated religious establishment such as a shrine or hermit's hut. A different kind of site was found at Ferraina A. Ferraina A is an iron-working site, with mounds of slag from smelting remaining visible, and there may have been a low-intensity late medieval/ early modern industry of metal extraction (see below).

Early Modern through 19th century

There is no break in settlement between the medieval and modern periods; virtually all medieval towns remained centres of population up to the 20th century. In the lowlands, settlement appears to gradually spread out more widely around centres, with more outlying sites and greater use of the coastline itself. Melito, the first coastal town, is a 18th century foundation, there are a few 18th century houses and agricultural installations in Bova Marina, and catastral records indicate increasing use of lower foothills (Lazrus 2014). A similar trend towards broader landscape use appears in the high mountain survey data (Figure 2f). Five sites with pottery dating to between the early modern period and the earlier 19th century were found. They span all altitudes, up to the highest mountain zone (the highest is at 1833m). Several lie along crest-line paths which are obvious transit routes in this terrain and which were used for later mule tracks; they may be artefact scatters left by travellers crossing the mountains. None were associated with architectural remains, and none suggest permanent settlement.

Aspromonte began to develop as a religious landscape in the early modern period, a use which continues today (Figure 4). The epicentre was the Sanctuary of the Madonna delle Montagne at Polsi, located in an inaccessible valley east of Montalto (Figure 4d). While the Sanctuary was a medieval foundation, it was refounded and grew in the 17th-18th century (Strangio 2011). By the early 20th century, it was a place of pilgrimage for people living in towns around Aspromonte. Pilgrimage routes may have been associated with wayside shrines (Figure 4e), as well as with the monumental statue of Jesus atop Montalto, the highest peak in Aspromonte (Figure 4a, b). The remote mountains of Aspromonte were also supposedly the habitation of hermits seeking isolation. While legends of such hermits date back to medieval times, one hermit is documented historically as living in a hut at Montalto in 1900, subsisting on alms from travellers (Picone Chiodo 2005: 27-30) (Figure 4c).

Three new activities also appear in the high mountains, probably between the 15th and 19th centuries. One is iron-working. Iron-smelting slag was found at 8 locations scattered throughout the mountains (Figure 5c). Two sites with substantial mounds of slag were found (Ferraina A and Ferraina C)(1417m), about a kilometre apart in a valley with a perennial river (Figure 5d); pXRF analysis confirms that both the slag and the local bedrock have a high iron content. While it is difficult to date these finds firmly and iron may have been worked in other periods, pottery from Ferraina A suggests that at least iron-working dates to the late medieval through post-medieval. They may imply itinerant, small-scale ironworkers moving between iron-rich rock outcrops, ideally close to charcoal sources. Although 18th-century writers mention copper extraction in the territory of Bova (Alagna 2005: 74) and copper and silver were mined in the hills southeast of Reggio in the 17th-18th centuries (Clemente 2011), there is little historical note of an iron-working industry. Such diffuse, small-scale iron extraction would presumably have ended by the late 19th century, when improved transit would have made manufactured goods from outside the area more readily available.

Secondly, three sawmills are listed on the 1870s maps (Piscopio, Pollio [located at or near the site of Porto Aposcipo], and Ferrughena [now Ferraina]). While the site of the first has probably been effaced by the modern Menta dam, neither of the others revealed any foundations or modifications related to water power or large industrial fixtures; these were probably human-powered saws. Nevertheless, while people had extracted large timbers from the mountains since Roman times, these are the first recorded substantial fixed installations for processing wood in the mountains, implying an increase in scale of exploitation and perhaps a reorganisation of timber production. Calabria supplied large timber for uses such as ship-building and railroad ties and these sawmills may have been tied into inter-regional commerce.

The most archaeologically obvious use of the forests in the later 19th century was charcoal-making (Figure 5a). Before the advent of electricity and gas, charcoal was in demand not only for industrial uses such as iron-smelting but also as a domestic fuel for heating and cooking in cities such as Reggio. Charcoal burners apparently worked in itinerant groups or encampments to cut wood, make charcoal and haul it on muleback to market. Particularly on the western side of Aspromonte, which is closer to the well-populated coastline around Reggio, entire hillsides are covered with the flat platforms on which wood was stacked in large mounds for carefully controlled burning. The platforms are readily identifiable oval or circular surfaces 5-8m across cut into hillsides, often with charcoal fragments still visible (Figure 6a). A parallel industry on a smaller scale was collecting snow and ice, although this remains archaeologically undocumented. Snow and ice were collected along the western slopes of Aspromonte during winters, stored in insulated pits until summer and carried down to Reggio and Messina to provide frozen desserts for city-dwellers.

Aspromonte was also covered by a network of constructed transit routes, in places quite dense. These took two forms. One was a network of narrow long-distance paths, sometimes sustained on slopes by small dry-stone retaining walls. Almost entirely now vanished in brush and forest, these connected inhabited centres across the mountains. The other was cobbled pathways. These were regular, carefully constructed paths, about 80cm wide, made of a single layer of closely-set stones 15-25cm in size (Figure 5b). Too narrow for wheeled vehicles or for herds, they clearly provided a fixed, solid surface for people and mules to travel upon. They followed obvious long-distance routes, at times coinciding with modern routes. Fragments of such paved trackways were found in 18 locations. The best-preserved pathway, running north-south across the lower slopes of Monte Basilico southeast of Gambarie, is traceable for 700m. Fragments along the principal trackway south from Materazzelli, the central topographic node of the high mountains, delineate a track extending southwards all the way to Bova some 18 km away. Other isolated finds of cobbled pavement suggest a network of routes throughout the mountains (cf. Picone Chiodo 2005: 150-1). Cobbled trackways of this kind are known throughout Mediterranean landscapes, and can serve a wide range of uses. These clearly are not for military or agricultural use; they are likely not for moving herds, as they are much narrower than *tratturi* paths known elsewhere in Italy, there seems to have been no formally organised system of large-scale transhumance they can be related to, and they seem unrelated to any other built features which might document such pastoralism. Instead, they seem to be infrastructure for mule traffic. Mules were the usual transport for traders. Such paths were already in existence elsewhere by the early 19th century; a British traveller, Arthur John Strutt, crossing a mountainous zone outside Palmi in 1841, noted “the remains of one of the steep, narrow, paved ways which were a few years ago, the only high roads in Calabria”. (Strutt 1842: 219). In the absence of other organisations which might invest and organise such projects, they must have been constructed by municipal authorities, possibly using *corvée* labour during slow periods in the farming year. While they are hard to date precisely, they seem most likely to represent a short-lived, ambitious 18th-19th century attempt at installing long-distance transportation infrastructure spanning the mountains. If so, it would have been fatally undercut by construction of coastal railroads (from the 1870s) and roads for wheeled vehicles (from the 1920s).

Overall, the 18th-19th centuries witness an acceleration of activity in the mountains. This includes both low-intensity visits leaving small scatters of material, and short-lived or small-scale attempts to exploit timber and iron, and to develop an infrastructure for communication and transport. This may represent an otherwise invisible sector of society; in traditional European rural societies in which status and social order were tied to land, semi-mobile people such as charcoal-burners were often considered a distinct bottom stratum of society, uncouth, rootless and

uncontrollable. While they are often mentioned anecdotally as picturesque examples of social outsiders encountered in the wild, there is almost no concrete historical evidence about them.

What we have not found is evidence of intensified pastoralism, in the form of shielings, byres, pens, or similar installations. The signature of specialised transhumant pastoralism in European mountains is well known both ethnographically and archaeologically (Carrer 2015; Bartosiewicz and Greenfield 1999; Carrer 2013; Christie et al. 2007; Meintjes 2004; Walsh et al. 2014; Putzer et al. 2016; Carrer and Angelucci 2018; Berruti et al. 2016; Visentin et al. 2016; Stagno 2017; Moe and Fedele 2019). Such studies in the Alps, Pyrenees, and elsewhere have revealed the extensive infrastructure needed to support specialised pastoralism. While admittedly the archaeology of transhumant pastoralism can be elusive and historic shepherds may have had ephemeral huts of branches, a few stone-built pens are known in the area at lower altitudes, up to about 1400m (Picone Chiodo 2005: 131-40). No such structures were found in our survey. Relatedly, 1943 RAF aerial photos show clearly that areas below 1000m were almost entirely deforested at that point, but areas between 1000 and 1400m were about half covered in trees and areas above 1400m remained thickly forested. While herds, particularly of cattle and goats, can forage in these forests and still do today, this does not suggest that the high mountains were intensively used for pasture. It seems likely that herding took the form of relatively short-distance movement within a few kilometres of settlements and was probably on a relatively limited scale and up to a limited altitude, unlike the seasonal long-distance movement of large herds known elsewhere in the Apennines and Alps.

There is also little evidence of any kind for historic brigandage. We would rarely expect to find archaeological evidence of banditry. Virtually every traveller in the area from the 18th century on mentions pervasive criminality in Calabria, above all attacks on travellers in rural areas, and it is clear that they are reporting fears of lawlessness shared by local residents everywhere. But while there are well-documented historic accounts of brigands in central and northern Calabria (Ciconte 2011), there are few or none in Aspromonte. Toponyms here referring to brigands (Passo del Ladro, Baracca del Brigante, Cacciadiavoli, Monumenti di Nino Martino) all refer to a single semi-legendary 16th- century figure, hardly implying rife bandit activity since then. The other famous outlaw of Aspromonte, Giuseppe Musolino (1876-1956, active around 1900), was not in fact a professional robber, but a fugitive from justice and prosecutor of personal vendettas (Ciconte 2011: 178-80). The fact that he was celebrated as “the last bandit in Aspromonte” probably owes less to his own exploits or to a continuous local industry of banditry than to the advent of mass media such as newspapers and to the reading public’s expectation that the mountains of Calabria teemed with criminals.

The archaeology of the later 19th 20th century: a ten-fold increase

The overall landscape of southern Calabria transformed dramatically in the 19th-20th century. As elsewhere in Europe, population rose. This was accompanied by a shift to coastal settlement unseen since Roman times, encouraged by construction of coastal towns, highways and railroads. By 1900, historic hill towns such as Bova were losing population and new coastal towns such as Bova Marina were booming. Other forms of internal migration included movement to newly developing farming areas such as irrigated citrus groves in lowland river valleys such as the San Pasquale valley in Bova Marina (Chesson et al. 2019). From the 1970s onwards, the traditional world of peasant farming collapsed, as subsistence farming was undercut by cheap food imports and as rural people

moved to towns, both nearby and in the north, with paid jobs, schools, health care, running water and electricity.

Paradoxically, even while the traditional rural landscape was contracting, use of Aspromonte's high mountains expanded dramatically in new directions. The only town above 1300m, Gambarie, was founded in the 1920s, numerous large-scale public works were begun, and a diffuse human presence in the landscape is much more visible archaeologically.

By far the largest number of finds in the highland survey date to the late 19th or 20th centuries (Figure 2g, Figure 6, Figure 7). Almost all were small scatters of pottery. Several kinds of assemblage were noted, probably corresponding to both distinct periods and uses (Figure 6). Terracotta fragments from water jugs and casserole-style cooking pots probably date to between the late 1800s and the mid-1900s, and may represent frequentation by charcoal burners, shepherds, and road and forestry workers (Figure 6a). Cups and plates of china or white earthenware probably date mostly to the mid-later 20th century, and may represent mostly family-style picnics (Figure 6b). By the later 20th century, most such wares were superseded by plastic vessels or disposables, and ubiquitous finds of Peroni beer bottles and small fires indicate frequentation both by forestry work crews and by hikers and picnickers. Other assemblages were probably related to mid-20th century work crews (e.g. Figure 6c).

The human presence behind these finds probably represents a mixture of activities. Political, recreational and industrial uses of the landscape are discussed below. In addition:

- As population pressure increased, and before the gradual abandonment of the countryside, farming encroached on higher altitudes. In the survey area, no agricultural settlements are noted on the 1870 IGM maps. By the time of the 1943 RAF photographs and the 1957 IGM maps, farmhouses are indicated in the upper Amendolea valley north of Roghudi up to about 1200m. Similarly, terracing around Gambarie indicates farming in more level areas up to 1400m. The highest agricultural installation known is the ruined foundations of a farmhouse with terracing and relict fruit trees, observed in field survey at Martorano (1465m). Such marginal, settled areas probably had a halo of areas utilised for pasture and forest resources of a kilometre or more, with hunters and mushroom collectors ranging further afield.
- Some herding activity undoubtedly took place. For instance, Alvaro (1955) draws an ethnographic picture of the lives of small-scale, sharecropping shepherds in the mountains in the 1920s, and the few "traditional" shepherd enclosures known (Picone Chiodo 2005: 131-40) probably date to the last century or so.
- Both charcoal burning and snow collection continued and indeed may have intensified in the 20th century, until they were put out of business by newer technologies (gas, electricity, and refrigeration), probably between the 1920s and 1950s; local residents have described older relatives engaged in charcoal-burning before WWII.
- People from towns around Aspromonte took part in pilgrimage, often on foot, along mountain paths to the sanctuary of the Madonna at Polsi. Near the main pilgrimage route along the watershed of the mountains, a monumental statue of Jesus was installed on the highest point atop Montalto (1960m) in 1900 (Figure 4a), and pilgrimage may have increased with motor transport when this route was paved in the 1920s. Indeed, survey found several shrines with pilgrimage mementos from the early 2000s, all concentrated along this road (Figure 4e).

Landscape projects of the state: political control, roads and economic development

It is axiomatic that the modern state must control all of its territory, and the cartographic mandate is essential to this mission. The 1870s *Istituto Geografico Militare* maps followed the unification of Italy almost immediately. They charted areas never systematically surveyed before, including Aspromonte. Systematically collated knowledge enabled political control and economic planning (for instance, the 1870s maps formed the basis for planning development projects such as road-building and drainage in 1910s and 1920s). It also helped define political boundaries, and it flattened differentials between local knowledge and the synoptic, impersonal eye of the state. The project of defining territory continued on a concrete, local scale as well. The archaeological footprint of cartography, still visible deep in the forests, consists of boundary stones (Figure 8a), trigonometric points (Figure 8b, c), and rusting, kilometres-long wire fences marking the boundaries between adjacent *comuni*. A US Air Force trigonometric point on the easternmost end of Montalto ridge shows the cartographic imperative tied into politics on an international scale. Nor did Aspromonte escape Cold War politics. At Nardello (1800m), a US Air Force base provided a radar station for monitoring air traffic throughout the Central Mediterranean (Figure 9). The Nardello base was in operation from the mid-60s to the mid-80s. Its archaeological remains include perimeter fencing, an observation tower, offices, supply tanks, and the massive concrete blocks upon which radar dishes were mounted.

The village of Africo (Figure 10) shows state intervention of a different kind. A remote and poverty-stricken hamlet of 1500-2000 people without roads, schools, or medical care, in the 1920s it was made famous throughout Italy by the social campaigner U. Zainotti-Bianco as an exemplification of the squalor and deprivation of the south (Zainotti Bianco 2009); this was confirmed by photographer Tino Petrelli's images in 1948 (Figure 10a). Shoeless, illiterate peasants living like beasts proved a glaring provocation to a regime devoted to portraying Italy as a modern nation, and in the 1930-40s archaeological inspection shows that Africo received a state-of-the-art new primary school, a new church and (following anti-state demonstrations there (Palamara 2015)) a police station (Figure 10c). Then, in 1951, a landslide wiped out the only road connecting the village to the outside world, and the government solved the problem a different way, forcibly removed the entire population, who spent four years in temporary barracks before moving to a newly founded town, Africo Nuovo, on the coast (Palamara 2015; Stajano 2015). The new buildings, along with the rest of the village, were left to decay (Figure 10b, c).

The largest single project of the state was building roads (Figure 11), which are often the largest datable historic landscape feature (Ruiz 2016) Already before the First World War, planners acting on a 1908 parliamentary directive to developing the south had projected roads to be built into the mountains (Mollica 1991). In a 1920s climate of large-scale public works, they began to act, building the first long-distance coastal road since Roman times. In the high mountains, the two key roads, a north-south one across the western edge of Aspromonte from Melito to Sant'Eufemia and an east-west one running along the crest of the mountains to connect Gambarie to Montalto, did not lead to centres of population; they were solely for opening up the mountains. Building them involved massive work by gangs armed with trucks, picks and shovels, working from bases such as the now-ruined mid-century barracks and workshop complex at Sella Entrata (Figure 11b). Archaeological inspection shows the multi-generational stratigraphy of these roads, with a durable 1920s stratum of stone paving covered by buckling 1950-60s concrete and then by potholed 1980-90s tarmac (Figure 11c). Roads sometimes followed earlier paths and trails, particularly along obvious routes such as crestlines, but they frequently modified them, introducing curves and switchbacks for motor vehicles where mules had negotiated steep grades, and they sometimes

carved out entirely new routes (Figure 11d). Road-building succeeded magnificently in making mountains accessible to workers and visitors in motor vehicles. As part of their civilising mission in an area notoriously considered lawless, they also allowed the forces of order to move police or army units rapidly. Roads also reoriented understanding of the landscape. The 1957 IGM maps record a dense, fine-grained network of mule tracks gradating into local roads. Ground-truthing these today shows that some former roads (such as the Strada Comunale extending northwards from Nardello to Puntone Scirocco) have become simple mountain tracks, and much of the dense network of former trails has vanished entirely, reclaimed by forests (Figure 11a). Roads had a paradoxical effect. They effectively concentrated travellers, replacing a dense capillary network of tracks accessible to local knowledge with fewer, more obvious and more travelled routes accessible to outsiders. Even as they made the heart of the mountains more accessible, they also rendered other areas more abandoned.

The major 20th century industry in the mountains was forestry. Starting even in Fascist times, deforested areas were systematically replanted. Beech plantations were created in many cleared areas above 1300m (Figure 12a). Pines and occasionally chestnuts were planted between 1000-1400m in the 1950s-1980s in a period style of densely monocropping fast-growing trees (Figure 12b). Forestry crews also built and maintained forest infrastructure, including unpaved access roads, paths, fences and springs. Private companies paid for rights to cut timber in delimited areas. The archaeological and historic footprint of forestry is clear:

- Patterns of tree growth in beech groves clearly show cutting major trunks at generational intervals since at least the 19th century (Figure 12a).
- Several dozen sheds or work structures are shown throughout Aspromonte on 1957 IGM maps, with some remaining on 1997 IGM maps. Ground-truthing many of these shed locations shows that virtually all of these structures have vanished entirely, with little trace even of foundations. The biggest complex, of five huts, is shown at Materazzelli, the centre of the mountains where several tree-lifts converged; archaeological inspection located a shallow possible foundation trench for only one. This suggests that these structures were not simply abandoned habitations or agricultural buildings, which would likely have had substantial stone-built foundations. Instead, they were probably light temporary structures associated with the forestry corps which were dismantled and moved when no longer needed. Such distributed camps probably collected trunks for transport down to sawmills rather than sawing them up on the spot.
- Three mid-20th century sawmills were noted on 1957 maps (Sant'Antonio, Cufalo, and Pantanizza). All were located along the western margin of Aspromonte, on or near a major road. Cufalo was a small, simple mill, probably powered by a petrol engine; today, only concrete footings for equipment and a few fragments of masonry remain. Pantanizza, in contrast, was an elaborate complex (Figure 12c). Two kilometres of buried ceramic piping 15 cm in diameter brought water downhill from a perennial spring to fill a series of cisterns. Water flow from these cisterns powered heavy saws mounted on concrete pillars. The complex also included storage and loading areas and a house for workers. Based on its masonry style and design, the complex operated for perhaps two decades between the 1930s and 1950s. The system of sawmills located in forestry areas did not endure long. More recent sawmills, using diesel or electric saws, are located in towns at lower altitudes such as Santo Stefano d'Aspromonte; trunks are transported to them using heavy trucks equipped with lifting arms.
- A related technology was the *teleferica*. This was a cable-car system which transported industrial loads such as tree trunks along a cable strung between support poles. It was

invented during WWI to carry supplies to soldiers fighting against the Austrians in the high Alps, and later adapted for mountain timber-harvesting. Five of these appear clearly as linear cuts through the forest in 1943 RAF aerial photos of Aspromonte (Figure 12d); they are also recorded on the 1957 IGM maps, which mistakenly identifies them as aqueducts. One fed the sawmill at Sant'Antonio; and several fed the work area at Materazzelli. Just outside our survey area, others were built to transport trees to a sawmill in San Luca. They were apparently dismantled when the intensive phase of logging in the 1940s and 1950s finished; forest has regrown over their paths, and no trace of them remains on the ground today.

- A more substantial series of about 20 permanent houses to provide shelter for forestry workers was built throughout the mountains (Picone Chiodo 2006). Most were built in a distinctive mid-century style of masonry alternating brick and stone, with reinforced concrete structural elements; this is found only in publicly constructed building and was apparently intended both to be ornamental and to resist earthquakes (Figure 12e). These structures provided living space, though without electricity; water came from a nearby spring. A few remain in use, sometimes by hikers as well as forestry workers (e.g. Giardini; S. Leo). Most are now derelict; since the 1960s, with mass automobile ownership, forestry workers generally return home from work each day rather than staying in mountain camps.

While logging remains ongoing today, the most active phase seems to have been between the 1930s and 1950s, when much of the old-growth forest was probably cut. Indeed, the largest beech trunks now commonly found in Aspromonte are generally about 80 years old, which would date them to the phase of regeneration following this period. What is most striking about mid-century forestry is how integrated a system it seems to have been, with a wave of investment in purpose-built sawmills, aqueducts, camps, and transport systems which were used for a brief period and then decommissioned. The scale and uniformity strongly suggest it was a state-sponsored project.

Aspromonte was also home to other industrial and infrastructure projects, both successful and unsuccessful. The spring-rich mountains east of Gambarie have a broad system of short-distance buried aqueducts to provide water for the town (including one small hydroelectric plant), and similar systems bring water to other towns such as Roccaforte del Greco. On a larger scale, the Diga di Menta dam collects water from several streams into an artificial lake to supply drinking water for the city of Reggio. A satellite transmission tower at Puntone Scirocco dates to the 2000s. In contrast to these successful initiatives, a conclusively failed project is the *Campo Sperimentale*, or experimental farm (Figure 12f, 12g). This was an extensive (ca. .5km²) area south of Gambarie which was cleared and terraced to jump-start a new industry, growing aromatic plants to extract their essential oils. A 1930s project clearly visible on the 1943 aerial photos, it must have been discontinued after only a short time, as much of its extant terracing is now covered with mature beech and chestnut trees whose rings show them to be a good 70-80 years old. This is the archaeology of failed development projects, a phenomenon widespread across of Southern Italy and Sicily: factories which never went into production, cultural centres built without roads leading to them, state-of-the-art tourist infrastructure left to rust, and similar political white elephants (or *cattedrali nel deserto*, "cathedrals in the desert") which served mostly to harvest the funding. Most such projects date to the 1960s or later; the *Campo Sperimentale* shows that the social impulse underlying them goes back as far as development projects themselves do.

Overall, there was a huge pulse of development in Aspromonte in the 1920s and 1930s; road-building, forestry and town-building (see below) were all major Fascist period projects. Yet overt Fascist ideology seems relatively muted. One inscription with Fascist iconography dates a

monumental fountain at Tre Aie to “An. X” or “Year 10 of the Fascist Era” (e.g. 1933) (Figure 13). But even considering what may have been removed since 1943, there is little of the grandiosity or material propaganda which marks Fascist public installations in cities such as Reggio or even in some rural areas (Samuels 2010). Perhaps creating an ambitious, modern mountain landscape and simply providing jobs was enough to create a local power base.

Landscape projects of the state: inventing a recreational landscape

Meanwhile, during the 20th century, a completely new kind of landscape was created in Aspromonte: the recreational landscape. Its ideological roots were twofold. One source can be traced to the Romantic fascination with nature, mountains, and “wild” landscapes. This is evident in Romantic landscape painting from the early 19th century onwards. Calabria was noted for its romantic landscapes (Gaetano 2015); an early local vector was Edward Lear, who toured southern Calabria sketching rugged landscapes in 1842 (Lear 1964). From the mid-19th century onwards, the romantic attraction to mountains fostered Alpine tourism and mountain climbing. The *Club Alpino Italiano* (CAI) was founded in Torino in 1863 to further mountaineering and skiing. By the 1920s, city dwellers from Reggio were driving up to the nascent settlement at Gambarie to ski, and the Reggio branch of the CAI was founded in 1932 (Arillotta 2013; Meduri and Pontecorvo 2005). Aspromonte does not offer many peaks suitable for technical mountaineering of the ropes-and-pitons variety, and the CAI’s early activities were focused mostly on skiing, with a parallel focus on hiking emerging only later. The second ideological source was the 1920s concept of healthful, physically and spiritually restorative summer holidays for urban masses in rustic “natural” surroundings. This widespread concept was often coupled with political or religious ideologies; it underwrote scouting movements, summer camps outside American cities, the socialist “rambler” movement in 1930s Britain, and National Socialist youth camps in Germany. In 1930s Italy, such summer camps were often combined with religious or labour organisations; the Fascist government also had seaside holiday camps aimed at developing Fascist youths. Like Italian “colonie” in general, they typically did not feature wilderness camping, but had hostel-style residential bases for a variety of outdoor activities.

Aspromonte’s new recreational landscape was invented through several developments (Figure 13).

- Gambarie, an entirely new town, was created in the 1920-30s (Meduri and Pontecorvo 2005). It is located on the western edge of Aspromonte’s central massif at the best point of entry from Reggio. It was created essentially as a recreational base for skiers. Its original 1930s core involved a large, formal hotel, a few smaller lodgings, and two large camps or resorts tied to labour unions (one for railroad workers and one for employees of public administration) (Figure 13a). Maps and architectural styles suggest steady growth since the 1950s, with hotels, a central piazza, and many seasonally occupied houses (Figure 13b).
- The first ski slope was constructed across a previously terraced mountainside east of Gambarie in the 1920s, and the first ski-lift was constructed in the 1950s, appearing on the 1957 IGM maps but not on the 1943 RAF air photos. Since then, there has been a continual extension of skiing infrastructure. Our archaeological survey has located pylons from a small, first-generation ski-lift rusting in the forest (Figure 13c); a second, disused lift remains still standing. A major pulse of building seems to have happened from the 1990s on, with EU funding; at present four ski slopes have been cleared, extending 5km east of Gambarie.

- Associated with the complex of ski slopes, a publicly funded, fully-equipped ski lodge was built at on the ridge between Nardello and Puntone Scirocco, probably around 2000. Covered with graffiti, it remains mothballed today.
- Summer camps elsewhere in the mountains are represented by the Colonia di Chiera (1567m). Known historically only from a name on the 1957 IGM map, only ruined foundations remain today (Figure 13d). Archaeologically it is a complex of five small buildings, apparently with different uses (kitchen, bathhouse, and probably an office/ caretakers' house, communal building and dormitory). A small, rustic complex, it probably could not have hosted more than a dozen people in a relatively rudimentary style. It dates to the mid-20th century, and was probably in use only for a short time, to judge from mature trees growing up inside building foundations. It presumably entertained families of some organisation's employees; it was probably connected with the Pantanizza sawmill, which was contemporary, built in the same style and only a kilometre away.
- Creation of an extensive recreational landscape is evident in installations throughout the mountains. Installations include formal picnic areas, signage for tourists, wooden fencing along some trails, and small fountains at perennial springs. The earliest datable such infrastructure is the monumental fountain at Tre Aie, at a picnic area 1.5 km south of Gambarie, dated to 1933 (Figure 13e, f). The summit of Montalto boasts a monument in the form of a compass dial pointing the direction to landmarks erected by the Rotary Club; the trail to the peak boasts a set of marble steps installed in a moment of ambition and now in disarray. While it is difficult to date many of these installations, some are demonstrably recent (dated inscriptions on Forestry Service-erected fountains are rarely earlier than the 1990s), and most probably date to the last 20 years. The *Parco Nazionale dell'Aspromonte* (Aspromonte National Park) was formed in 1994 with the mission of managing and protecting the natural environment of the area and of encouraging nature and cultural tourism (Bevilacqua and Picone Chiodo 1999), and most of these installations probably fall under its aegis.
- Again, these installations are accompanied by a diffuse archaeological record, comprising small scatters of debris (principally pottery and glass) associated with picnics. The ceramics are typically mid-to-late 20th century tablewares, the glass beverage bottles. In contrast with pottery scatters of undecorated terracottas, which are often found in quite remote locations, these seem mostly distributed in clearings along roads, particularly along the Gambarie-Montalto road, and similar material is found at formally defined picnic areas too. More recent archaeological finds attesting recreational use up to the present (a.k.a. litter) is also widespread.

Cumulatively, these projects create a new kind of landscape in Aspromonte, a landscape understood not in relation to its residents, economic uses, or relationship to the villages encircling it, but entirely as a new kind of place: a recreational and spiritual resource for urbanites. Creating such a landscape was a goal explicitly stated when the *Parco Nazionale d'Aspromonte* (National Park of Aspromonte) encompassing most of this area was founded in 1994. But it clearly had been growing since the 1920s, with a major expansion in the post-war period. What Aspromonte has to offer for urbanites is complementarity or difference, to be enjoyed in a temporary sojourn. In fulfilling this role, "nature" is Aspromonte's strong suit; in contrast to the crowded, noisy cities and coastal strip, the forested mountains seem to exemplify "nature" at its most pristine. Cultural tourism, another desideratum and one upon which the area's hope for economic survival rests, is more of a challenge. The high mountain area lacks demonstrable historic traditions, visible human occupation, and visitable monuments other than the summit of Montalto and the sanctuary at Madonna di Polsi.

Filling this void, books, websites and tourist materials generalise the folklore and peasant traditions of towns around the margins of the mountains such as Bova and Santo Stefano, extending them to the high mountains and recycling images and legends of bandits and shepherds.

Modern, but structurally archaic: Inventing ancient mountains

This research supports two main conclusions. One is empirical. Historical and contemporary archaeologists have established how archaeological evidence can ground continuous narratives of social change in the recent past. This is all the more so in areas such as Aspromonte, where the 20th century textual record leaves many gaps, and for classes of people under-represented or excluded in the textual record. The material evidence before our eyes is a key source. Taking such an approach, the picture that emerges reveals a new history of landscape use in Europe's mountains. Elsewhere in Italy, and indeed in southern Europe, there is archaeological evidence that humans used high mountains in many periods from the Bronze Age through medieval times, particularly as seasonal pastures in transhumant systems (Walsh et al. 2014; Putzer et al. 2016; Carrer and Angelucci 2018; Berruti et al. 2016; Visentin et al. 2016; Christie et al. 2007; Meintjes 2004; Carrer 2013; Bartosiewicz and Greenfield 1999). But in Aspromonte, this was not the case. People frequented the mountains in all periods, but they never supported extensive occupation. In most periods, use of the mountains above about 1000m seems always to have been transitory and light on the ground. Finds probably reflect not inhabitation but short-term forays for using specific mountain resources. Only in the Archaic, Classical and Hellenistic periods were scattered initiatives made to actually inhabit the mountains permanently, particularly through agricultural settlement of small, fertile highland plateaux, which left a series of fortified rural sites between 1100-1300m altitude. Our survey has shown that less formalised Greek use extended well above this zone, probably to exploit specific mountain resources such as pitch.

Why was Aspromonte not used more intensively, as some other high mountain areas were? The answer lies in the specifics of regional geography. An island of rugged terrain entirely surrounded on all sides by a thin margin of poor communities, it was never important for strategic political reasons. It had no major transit routes to furnish livelihoods either for commercial transport or for predatory bandits. And it did not have a dense, extensive or prosperous lowland area to generate the lowland end of producers or consumers to anchor systems of mass transhumance or of industrial exploitation.

Instead, the real development of the high mountains began only in the last two centuries. In more recent periods, the high tide of traditional peasant farming carried 19th-early 20th century farming to about 1300m at the very highest in a few places, but such use contracted sharply in the 20th century. There was also a slow crescendo of sporadic, small-scale uses (iron-working, charcoal-making, timber-harvesting, construction of communication routes for pack animals), probably reflecting growing population density in the surrounding lowlands (for instance, most of the charcoal made in the 19th-early 20th centuries was probably destined for the urban markets of Reggio).

There is an increasing archaeology of 19th-20th century social change. Elsewhere in Italy, research has highlighted historic changes in the 1800s and 1900s due to factors such as depopulation, road-building, shifts in productive strategies, and workers' aspirations to escape poverty (Stagno 2017; Pluciennik, Mientjes, and Giannitrapani 2004). Pastoral systems changed as well (Meintjes 2004; Walsh et al. 2014; Carrer 2015; Carrer and Angelucci 2018; Stagno 2017; Moe and Fedele 2019); sometimes they increased, sometimes they were abandoned, sometimes they

were reoriented towards urban markets, but nowhere were 20th century shepherds simply avatars of an unchanging tradition. Aspromonte's trajectory is unique. With little history of intensified pastoralism, the 20th century development of the mountains is due almost entirely to state intervention (cf. (Kuijt et al. 2015) for a parallel case in a marginal zone of western Ireland). Although not all projects visible on the ground can be closely dated, there seem to have been several distinct pulses of activity. The first major effort was in the Fascist period, including key projects such as road-building, forestry, and recreational development. A period of continuous steady extension of these projects followed throughout the postwar period. Most recently, there has been a burst of highly visible but sometimes incompleting projects funded by European Union money in the 2000s. Development involved re-envisioning the mountains in three distinct ways: politically, economically, and as a recreational landscape. The development of Aspromonte responded to centralised plans for political control of all the territory of the state through cartography, accessibility, police and defense organisations. Economic development was founded upon infrastructure such as road-building and water management. It involved a few tangential projects, mostly short-term and unsuccessful, such as experimental farms. But its major focus was forestry, with reforestation and the harvesting of timber – activities which have left a broad and varied archaeological footprint on the landscape. The other focus of 20th century state and institutional projects was invention of an entirely new kind of landscape, the recreational landscape. Responding to a pan-European 19th-20th century Romantic quest to seek "nature" in inaccessible mountains, a movement itself inspired in part by social constructions of mountains in the classical past as represented in literature, and to a 20th century ideology of healthy, spiritually regenerative mass recreation in natural settings for urban dwellers, the invention of a recreational landscape resulted in an equally pervasive archaeological footprint, which ranges from surface scatters left by short-term visitors to defunct summer camps and ski lifts. The result was a new practical understanding of the mountains as a place interdependent with the lowland world but defined conceptually as its opposite.

The second striking implication of this work chronogeography. Any landscape requires a history; landscapes have to be fitted within a global narrative to be understood. Aspromonte was frequented in all periods, but in ways which left little overarching history. Devoid of towns, religious sites, medieval castles, and Classical ruins, it afforded no substantial hooks for 19th and 20th century observers to hang narratives upon. In many ways, it provided them with a *tabula rasa*. It could equally well have been understood as a brand-new landscape, something made possible for the first time by 20th century progress. But it was structurally archaic in the logic of modernity, which supplied a ready-made temporal geography founded upon a crowded, fast-changing modernity defined in lowland centres. Visible dichotomies such as lowland vs. highland, connected vs. isolated, populated vs. unpopulated and state-controlled vs. liminal were extended to encompass historical change vs. timelessness and the present vs. the past. To take an obvious example, trees were equated with "nature" and hence assumed to be prior to history; no traveller ever asked whether the forests themselves had a history, rather than being unchanging or primeval. In such a logic, mountains were pre-destined to represent the past. In a crowded modern world, Aspromonte's very emptiness was seen as evidence of its unchanging antiquity.

When Norman Douglas walked across Aspromonte in 1912 admiring the trackless forests and the archaic shepherds, the forests were not trackless. They had been mapped systematically by the Italian government 40 years earlier; they supported industries of independent, small-scale entrepreneurs supplying charcoal and ice to cities; there was a nascent timber industry; and government plans for their development were already afoot. Descending from Montalto to Bova, Douglas walked down stretches of cobbled mule path; had he enquired about its history, he would have learned that it had been constructed probably less than a century before. Nor were the

shepherds archaic; the specific form of animal ownership and rights to pasture they used had probably changed dramatically in the 19th century with Napoleonic and post-Risorgimento land reforms. Their economic life (as described in Alvaro's *Gente di Aspromonte*) (Alvaro 1955) was a form of pastoral sharecropping made possible by 19th century sale of rights to common land to wealthy landowners. They could have been read as small-scale, low-capital entrepreneurs, or as a rural proletariat. But Douglas found what he sought. He chose to see the mountains as timeless, and to understand the shepherds he encountered ahistorically as legacies of an unchanging antiquity rather than as individuals as enmeshed as himself in a changing world. Indeed, when locals regaled him with tales of Giuseppe Musolino, the "last bandit" of Aspromonte, Douglas understood him as an avatar of an archaic violent justice; yet it would be equally accurate to see Musolino as somebody whose criminality was created by the intersection of social hierarchy, the judicial system, and the new mass media which enveloped him in notoriety.

Douglas left the most detailed period travelogue of Aspromonte in any language, but he was not alone. Both foreign and Italian travellers throughout the 19th and 20th centuries persistently constructed the Calabrian landscape using the same logic, seeking a landscape of unchanging traditions and archaisms. The area was seen primarily in terms of things it lacked: roads, law, and modernity (Nucera and Nucera 2012). People and landscapes encountered there were automatically classified as survivals of ancient traditions, by definition anachronistic in the modern world. Indeed, when Douglas returned in the 1920s and found that you could now ascend to Montalto by the newly-built road from Gambarie, he reacted with a mournful nostalgia, lamenting the passing not only of an archaic order but of the heroic solo trekking it afforded time travellers such as him (Douglas 1938: v). In some ways, this encapsulated the paradox of the high mountains. Once one ventured into the forests above the inhabited zones, the landscape was essentially created by modern interventions; but as soon as modern observers arrived there, they made the mountains ancient.

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Figure captions

Figure 1. Aspromonte massif in southern Calabria (black box outlines study area).

Figure 2. Survey finds. Unfilled circles indicate areas surveyed with no finds from the period.

- a. Areas surveyed
- b. Prehistoric finds
- c. Greek period finds

- d. Roman period finds
- e. Medieval finds
- f. Early modern finds
- g. 19th-20th century finds

Figure 3. Surface finds from field survey

- a. Neolithic blade made from imported Sicilian flint, Porto Aposcipo
- b. Prehistoric pottery, north of Gambarie
- c. Greek black-gloss cup fragment, Ferraina B
- d. Greek sherd with black crystalline encrustation, possible spring sanctuary site, southeast of Gambarie
- e. Roman period African Red-Slip ware, north-west of Africo
- f. Late Roman/ early Medieval tile profiles, Materazzelli
- g. Late medieval/early modern wares, Ferraina A iron-working site

Figure 4. The archaeology of a religious landscape

- a. Statue of Jesus, Montalto peak (erected in 1900)
- b. Detail of recent votives placed on statue of Jesus, Montalto
- c. Hut foundation, Montalto, possibly used by late 19th/ early 20th century hermit
- d. Pilgrimage destination, Sanctuary of Madonna di Polsi
- e. Shrine along Gambarie-Montalto road, Tre Limiti

Figure 5. Exploiting forest and mountain resources, medieval to modern

- a. Charcoal burner's platform in road cut, northeast of Gambarie. Note levelled oval area and black charcoal-rich stratum just below surface in profile.
- b. Cobbled trackway for mule transport, southeast of Gambarie. Width of trackway is 90 cm.
- c. Sporadic find, iron slag, Punto Telegrafo
- d. Surface concentration of iron slag, Ferraina A

Figure 6. Surface finds, 19th-20th century

- a. Early-mid 20th century cooking wares, Tre Limiti
- b. Mid-20th century picnic assemblage, Serra Juncari
- c. Mid-20th century work crew assemblage, Giardini. Note mule or donkey shoe, hook possibly for handling timber, and fragment of cross-cut saw blade.

Figure 7. Surface finds from field survey: findspots per period

Figure 8. The archaeology of cartography

- a. Boundary marker between territories of two *comuni*
- b. Istituto Geografico Militare survey datum point, Montalto peak
- c. US Air Force survey datum point, eastern end of Montalto summit

Figure 9. Nardello US Air Force radar station. Square concrete platforms served as bases for radar dishes.

Figure 10. Rural poverty in the mountains: the town of Africo (abandoned 1951)

- a. A street in Africo, photographed in 1948 by photographer Tino Petrelli

- b. A street in Africo, photographed in 2016
- c. 1940s attempts to improve social conditions in Africo: the elementary school (left) and police station (right)

Figure 11. The archaeology of roads

- a. Dense network of mule paths recorded on IGM 1:10000 maps (1957; area shown here is Campi di Bova, along the road from Bova to Roghudi). Paths and trails are indicated by dashed lines; almost all have vanished in forest in the last 70 years.
- b. Mid-century roadworks base with barracks, offices, and truck ramp, Sella Entrata
- c. The Gambarie-Montalto road: superimposition of 1920s, 1950s, and 1990s paving
- d. Road to Diga del Menta dam: disused 1950s-1960s paved road replaced by 1980s-1990s road adapted to lower gradients and gentler curves

Figure 12. The archaeology of forest development

- a. Beech tree, main trunk probably ca. 1930s, coppicing probably ca. 1980-90s (ca. 1500m)
- b. Mono-species pine plantation, ca. 1200m, 1960s, following recent forest fire
- c. Ruins of mid-century water-powered sawmill complex with cisterns, machine areas, office and storerooms, Pantanizza. Area shown here is entrance to sawing room.
- d. RAF reconnaissance photos of Materazzelli area, 1943. *Teleferiche* (cable systems for transporting cut trees to sawmills) are visible as long linear straight cuts through forests; two run into the Materazzelli work area from the Pietra Capella/ Giardini area to the southeast, and one runs in from the Acque delle Face area to the northwest. From Materazzelli timber could have been transported out on trucks along the main Gambarie-Montalto road.
- e. Decommissioned 1950s-1960s Forestry Corps house with distinctive masonry, Casa Romeo
- f. *Campo Sperimentale* (experimental farm) for developing essential oils industry, located at the junction of the Gambarie-Bagaladi road and the Gambarie-Montalto road, as visible in RAF reconnaissance photos from 1943.
- g. The same, visited in 2016. Beech trees growing in the terraces are at least 70 years old, suggesting the Campo Sperimentale went out of use no later than sometime in the 1940s.

Figure 13. Developing a recreational landscape

- a. Gambarie in 1943 (RAF reconnaissance photo). The large U-shaped building is the Albergo Grande; the two other major installations (the railway workers' union holiday house, and the government employees' union holiday house) are located just outside of town. Besides these, the town contains about 20 houses. The ski slope runs uphill north-northeast of town.
- b. Gambarie in 2019 (Google Earth). The ski slope remains in the same place, but a ski lift has been added east of it.
- c. First-generation ski lift pylon, now enveloped in forest, Gambarie
- d. Ruins, Colonia di Chiera camp
- e. Tre Aie monumental fountain, south of Gambarie
- f. Inscription, Tre Aie monumental fountain

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