Chapter 1

The Pelion Cave Project (PCP): Research background

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Greek Summary

Μοναστικό βουνό αρχικά, με την οικιστική ανάπτυξη και επέκταση των οικισμών στο Πήλιο να ξεκινά περίπου το 1550. Τα προνόμια, τα οποία παραχωρήθηκαν από τις Οθωμανικές αρχές, πυροδότησαν την οικονομική ανάπτυξη από το δεύτερο μισό του 17ου αιώνα, όταν το Πήλιο ευημερούσε ως ένα ισχυρό οικονομικό κέντρο. Στην διάρκεια του 18ου και 19ου αιώνα, εξελίχθηκε στην πιο πλούσια και πυκνοκατοικημένη ορεινή περιοχή της Ελλάδας. Η ανοικοδόμηση και εν γένει οι οικονομικές δραστηριότητες παρήκμασαν μετά το μέσον του 19ου αιώνα, κυρίως λόγω της σταδιακής ανάπτυξης του Βόλου ως αστικού και βιομηχανικού κέντρου. Ωστόσο, οι αγροτικές καλλιέργειες εντάθηκαν στην ύπαιθρο, και τα πεδινά χωριά του Δυτικού Πηλίου άρχισαν να αναπτύσσονται ταχύτατα μετά την απελευθέρωση της Θεσσαλίας από τους Οθωμανούς.

Μετακινήσεις πληθυσμών, ανησυχία και συγκρούσεις σημάδεψαν το πρώτο μισό του 20ου αιώνα. Κατά τη διάρκεια του Δεύτερου Παγκοσμίου Πολέμου στο ορεινό Πήλιο είχε οργανωθεί ισχυρή αντίσταση στην κατοχή των δυνάμεων του Άξονα, ενώ η δράση αντάρτικων ομάδων συνεχίστηκε και στην διάρκεια του Ελληνικού Εμφυλίου Πολέμου. Πολλοί κάτοικοι του Πηλίου μετανάστευσαν στον Βόλο και στην Δυτική Ευρώπη μετά τον Εμφύλιο Πόλεμο, ενώ η ταχεία ανάπτυξη και αστικοποίηση του Βόλου συνέβαλε επίσης στην φθίνουσα πορεία των χωριών του Πηλίου.

Η Ελλάδα έγινε μέλος της Ευρωπαϊκής Κοινότητας το 1981. Όσο σημαντικές ήταν οι αγροτικές επιδοτήσεις για τους γεωργούς και κτηνοτρόφους των πεδινών του Βορείου Πηλίου, άλλο τόσο σημαντικά ήταν τα έσοδα από τον τουρισμό για το υπόλοιπο Πήλιο. Τα τελευταία χρόνια το Πήλιο γνωρίζει έναν συνδυασμό διαφορετικών κερδοφόρων στρατηγικών, συμπεριλαμβανομένου του τουρισμού και της εμπορικής γεωργίας με επίκεντρο τα οπωροφόρα δένδρα.

Από αρχαιολογικής πλευράς, το Πήλιο είναι μια περιοχή στην οποία δεν έχει δοθεί ιδιαίτερη ερευνητική προσοχή. Ιδίως τα πολυάριθμα σπήλαια του βουνού παραμένουν άγνωστα στην αρχαιολογική κοινότητα. Η άρτια καταγεγραμμένη ιστορία του Πηλίου προσφέρει γόνιμο έδαφος για έρευνα των ποικίλων χρήσεων και της σημασίας των σπηλαίων από την μεταβυζαντινή περίοδο μέχρι σήμερα. Η εθνοαρχαιολογική έρευνα με επίκεντρο το Πήλιο ξεκίνησε επισήμως τον Σεπτέμβρη του 2007 από το Ινστιτούτο της Δανίας στην Αθήνα, σε συνεργασία με την Εφορεία Σπηλαιολογίας και Παλαιοανθρωπολογίας του Υπουργείου Πολιτισμού. Το ερευνητικό πρόγραμμα για τα σπήλαια στο όρος Πήλιο επικεντρώνεται στη λειτουργική, οικονομική και πνευματική χρήση των σπηλαίων κατά τα μεταβυζαντινά και νεώτερα χρόνια, και εξετάζει τη δυναμική των σπηλαίων ως αξιόπιστη πηγή αρχαιολογικής γνώσης, τοπικής ιστορίας και ζωντανής πολιτισμικής κληρονομιάς κάθε περιοχής.

Καθώς ορισμένες κτηνοτροφικές ή μη χρήσεις γίνονται πλήρως κατανοητές κατόπιν σύνδεσης με τις ευρύτερες ιστορικές και οικονομικές εξελίξεις, το ερευνητικό πρόγραμμα καταγράφει ορισμένους από τους τρόπους, μέσω των οποίων οι τοπικές, εθνικές και διεθνείς οικονομικές εξελίξεις και τεχνολογικοί μετασχηματισμοί επέδρασαν στις παραδοσιακές μεθόδους παραγωγής και στην κοινωνική δυναμική των κατά τόπους κοινοτήτων. Η τοπικής κλίμακας μελέτη σπηλαίων και βραχοσκεπών επιτρέπει να συνεκτιμηθούν η αναδιάρθρωση ή η εγκατάλειψη της γης ως αποτέλεσμα αλλαγών στην αγροτική οικονομία και της αυξανόμενης εκβιομηχάνισης. Επομένως, το ερευνητικό πρόγραμμα για τα σπήλαια του Πηλίου αποτελεί ένα χρήσιμο αντίβαρο των ερευνών σε υπαίθριους οικισμούς στην Ελλάδα.

Η εθνοαρχαιολογική προσέγγιση στοχεύει τόσο στην αποκάλυψη των υλικών συσχετισμών, οι οποίοι θα μπορούσαν να απαντήσουν αρχαιολογικά ερωτήματα, όσο και στη διερεύνηση της ιστορικής και κοινωνικά δυναμικής σχέσης μεταξύ των κατά τόπους κοινοτήτων και του τοπίου που τις περιβάλλει.

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1.1 Setting the field: The spatiotemporal context

Popular images of Mount Pelion include green forests, rich dark blue seas, numerous streams with fresh cold drinking water and spectacular stone mansions. Beyond this consensus view lie differing perceptions of the mountain and contrasts depending on whether one is a tourist, village dweller, migrant day-worker, transhumant shepherd or archaeologist. The physical environment on Pelion is due not only to the mountain's particular geology, landforms, vegetation and climate, but also to ease of transport and the presence of economically valuable rocks. All these factors influenced the cultural landscape in the past and continue to do so today.

The mountain ranges of Olympus, Ossa, Mavrovouni and Pelion run in an almost continuous chain from the western shore of the Thermaic Gulf to the Aegean shores of Thessaly. Pelion, the most fertile of the four mountains, extends into a hook-like peninsula between the Pagasetic Gulf and the Aegean Sea. Seven of the mountain's summits reach heights of around 1500 m and the highest among them is Pourianos Stavros at 1624 m.

The main bulk of Pelion is in the north and here the mountain consists of karstic limestone with schist-chert formations and enclosed ophiolitic bodies (Vaxevanopoulos, this volume). Rocky outcrops in the central and south part of the mountain are mainly fertile schists with marble intercalations. Pelion has notable differences between its north and

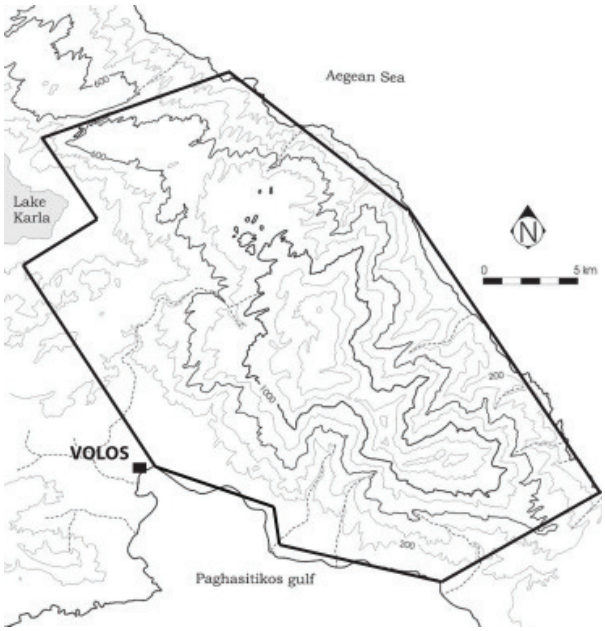

Fig. 1.1. Map of Pelion.

Fig. 1.2. Panorama of Northeast Pelion, facing toward the southeast, with the Flamouri Monastery on the opposite side of the gorge.

south in geology, topography and vegetation, and the summits that divide the peninsula further define an east–west boundary between the environments of the maritime and continental sides of the mountain. Pelion can, therefore, be divided into four areas, each of which has its own characteristics. Common to the whole region is the fact that few places are far from either sea or mountain, and it therefore offers an environmental mix capable of supporting a variety of economic strategies.

Due to its elevation and geographical location, Pelion receives a large amount of rain. Gorges transect both sides of the mountain and streams on East Pelion can become extremely active during downpours and in the spring when the snow is melting. Every year, local torrents carry millions of cubic metres of water into the Aegean Sea along with large amounts of sediment and forest debris. Small beaches have formed where the gorges empty into the Aegean. Local toponyms, such as *Kakoskali* and *Kakia Skala* ("Bad Stairs"), may suggest the potential force of some of these streams.

Volos, at the foot of Northwest Pelion, is the capital of Magnesia and the major commercial centre. It is also the only outlet towards the sea from Thessaly, the country's largest agricultural region. While the entire upper part of the mountain remains unpopulated, a number of mountain villages are scattered on the slopes of the mountain up to 700 m.a.s. On the western side, seaside settlements are more numerous and larger than on the eastern side, where these are mainly small fishing hamlets with some recent tourist developments. Mid-altitude villages above 500 m.a.s. are also more widespread on the western side. Villages all over the mountain range in size from small semi-abandoned hamlets to the largest village, Zagora, with about 4000 inhabitants. Settlements in East Pelion tend to be more spread out on the slopes than on West Pelion, possibly due to easier availability of water and difficulties involved in building on the steep slopes.

Small roads and an extensive web of cobblestone trails interconnect all the villages.[1] A winding asphalt road leads from Portaria above Volos to Chania at the top of the mountain, before descending on the eastern side. An alternative route extends from Volos to the southeast along the Pelian foothills where it leads through a string of settlements and olive groves situated on the narrow coastal stretch

1 Haratsis 2003.

along the Pagasetic Gulf. A parallel route on the mountain passes through the villages of Pinakates and Vyzitsa before both routes merge at Milies. From Milies, a road continues over the mountain to the Aegean side where it becomes circuitous as it navigates several deep ravines. It passes through all the villages as it snakes northeastwards towards Zagora. Access to the Aegean side has always been slow and at times impossible during severe weather. An improvement to the Pelion infrastructure was made in 2010 when an asphalted road was constructed across the mountain from Kissos to Chania. A new extension of the highway bypassing the centre of Volos has been tunnelled through the Goritsa Hill to Agria at the Pagasetic Gulf, with the purpose of making access to the Pelion peninsula easier.

The area north of Zagora has few settlements (Keramidi, Veneto and Pouri) and still almost no roads (Fig. 1.2). This mountainous, barely unpopulated and inaccessible area represents half of the natural habitat that covers all 24 Pelion villages and is protected under *Natura 2000*, an ecological network of protected areas within the European Union.[2] The northwest part of the research area includes the Pelion foothills along the eastern edge of Lake Karla in the Thessaly plain. Called "Voiveis" in Antiquity, Lake Karla was referred to by a number of ancient writers.[3] With an extent of 25,000 ha and a depth of -6 m, it was one of the most extensive wetlands in Greece and the most important in Thessaly. Until recently, the lake was drained for the production of cereals, cotton and vegetables, but part of it has now been re-established.

Apart from its mythology, ancient writers mentioned Pelion for its pleasant climate and exceptionally rich vegetation.[4] The climate on Pelion is Mediterranean continental with a large temperature difference between seasons. Summer months are warm and humid and the average temperature reaches 26° C, but highs of over 30° C are common during July and August.[5] Spring and autumn see temperatures of 16° C–23° C, and up to 10 hours of sunshine every day. The average winter temperature is 4° C, and it can get lower than -5° C. The winter months from November to February are cold and wet, during which the monthly average rainfall can exceed 63 mm. Snowfalls are frequent and usually observed until early spring. The wind during the winter months is predominantly from the west and northwest. The rest of the year, a gentler and warm breeze blows in from the Aegean. The Aegean Sea strongly affects the local climate on the east side of the mountain. While the whole region is prone to torrential downpours, precipitation is much greater on the Aegean side. This, along with differences in wind direction and topography, creates varying conditions for vegetation and agriculture.

Pelion supports abundant vegetation with a diverse array of plant species. Much of the mountain is covered in woods consisting mainly of broad-leaved deciduous trees such as beech, oak, maple, wild chestnut and a range of fruit trees. Especially the eastern part of the mountain is densely forested, and one can see plane trees, alders, poplars and willows covering the banks of many streams on this side.

Pelion has three vegetation zones. Typical Mediterranean maquis shrubland covers the low altitudes (0-600 m.a.s.). This zone includes mostly self-sown aromatic and pharmaceutical taxa, such as sage, thyme, mountain tea etc. Pelian flora includes at least 50 aromatic and pharmaceutical herb species. Above this is the para-Mediterranean broad-leaved decid-

2 European Commission 2009. Code GR1430001 signifies Mount Pelion and its coastal areas.

3 Herodotos: Book 7, Ch. 129; Pindar: The Pythian Odes 3, 60; Euripides: The Alcestis, str. 591; Homer: The Iliad, Book 2, 712.

4 For Pelion and its rich natural landscape, c.f. Homer 2.2.755; Eur. Med. 1.

5 www.hnms.gr

uous tree zone (600-1200 m.a.s.), which includes mainly oak and chestnut forests. The beech forest zone covers the areas above the para-Mediterranean zone up to the tree-limit zone (800-1600 m.a.s.).[6] Pelion also includes grasslands, phrygana and agricultural land. The cultivated species are fruit trees (oranges, lemons, apples, apricots, kiwis, pears and cherries), walnuts, almonds and vine. The lowlands on the west side of the mountain have extensive olive groves.[7] The fruit trees are not recent introductions; they were mentioned by nineteenth-century travellers.[8]

1.2 Major events and historical trends on Pelion

1200-1423: High Medieval period:[9] Forced transfer of all Thessaly from the Venetians to the Turks from 1411 to 1423. General Tuired Bey occupied Thessaly under Sultan Murat II and Thessaly, with Pelion, became a province of the Ottoman Empire. Pelion was a monastic mountain and several important monasteries were established on its slopes.[10]

1423-1668: Establishment of mountain villages: Most villages on Northeast Pelion were originally seaside villages. Inhabitants were mainly seafarers and, to a smaller extent, farmers with land extending up the mountain. Frequent pirate attacks and the arrival of the Turks led to the abandonment of seaside settlements. Instead, the inhabitants sought protection higher up on the mountain where new villages were formed near the monasteries. Further development and expansion of most Pelian settlements took place from around 1550.[11] Systematic cultivation of olive trees was introduced around 1600, and in 1615, all land was divided into two distinct categories. *Vakoufia* was the Turkish term for fields owned by religious institutions and schools, including fields from which the profit was dedicated to these institutions. After the liberation of Greece (and the Lausanne agreement in 1922), these religious trust properties were declared exchangeable and a special service was formed to deal with this under the National Bank of Greece. *Chasia* is land where the tax was due directly to the Sultan or to state officials. The latter would pay the palace a specific amount of money and in return receive the the majority of the tax revenue from their region.[12]

1668-1821: Progress and prosperity: From 1668, special privileges granted to upland villages by the Ottoman authorities as part of an economic growth package stimulated production, commerce and economic expansion. At the same time, this attracted many Greek immigrants from the lowlands and nearby islands who were eager to escape high taxation and the constant threat from raiding pirates in the coastal areas. Immigrants included city dwellers, manufacturers, merchants and seamen, and because of the composition of the labour force, Pelion prospered into a powerful economic centre showing rapid growth in productivity.[13] Along with other mountainous communities in Ottoman Greece and Anatolia, it became a hub for mobile artisans and traders.[14] Trade on the mountain was on a scale sufficient to sustain specialist carriers (muleteers) and during the 1700s and 1800s it was the wealthiest and most densely populated mountainous area

6 www.iama.gr/ethno/faskomilo/Fwtiadis.pdf
7 Thomas (1966, 60) mentions that olive trees grew on Pelion from 1600 onwards.
8 E.g. Magnitos 1860, 36.
9 For Prehistory and Antiquity, see Leake 1835 368-99, 426-33; Mézières 1854; Wace 1906, 143-68; Theocharis 1967b; Feuer 1992, 286-7.
10 Makris 1982, 181.
11 Makris 1982.
12 See also Asdrachas 2005, 14-5.
13 For instance, during 1760-1770 many Moscopolites (today the Albanian town of Voskopoje) settled on East Pelion after Moscopolis' decline (Mackridge 2009, 58).
14 Tsotsoros 1986; Asdrachas 2003, 357-67.

in Greece. Particularly Zagora steadily grew into an important commercial and manufacturing centre.[15] Cultivation of silk (30-40 tonnes per annum), tanning industries and fur and copper processing generated significant economic wealth. Wool was imported from different areas of Greece (Levadia in Boeotia delivered almost all of its annual production of wool to Zagora), mixed with local qualities, and then made into woven fabric at the Zagorian workshops.

Following the Russian–Turkish Treaty of Kuchuk Kainarji (or Küçük Kaynarca) in 1774, which ensured free navigation for Eastern Orthodox Christians in the Mediterranean under the Russian flag, Pelion's autonomy and relative independence made it possible for Greek seamen to organise a commercial shipping fleet. Silk and cloth could then be shipped out from East Pelion's port at Trikeri (Horefto area) and the products were sent to many important trading centres throughout Europe. This further added to Pelion's status as an important centre for industry and trade.

Economic and cultural progress caused a steep increase in construction activity and led to early "urbanization" on the mountain.[16] Examples are the works of architecture on Pelion (bridges, cobbled paths, monasteries, watermills, schools, etc.) and multi-storied, finely decorated private houses. Outside the villages, olive oil production was also intensified.

However, despite economic progress, a range of problems plagued the region. The population in the marsh villages on the Thessalian plain suffered greatly from malaria and other epidemics in the second half of the eighteenth century. The death rates were so high that they had an impact on the shaping of land ownership patterns in Thessaly.[17] Malaria was such a widespread problem in the region that it could support a specialised production of mosquito nets in Portaria in the nineteenth century.[18] Epidemics were also experienced on Pelion itself, and infected individuals were in some cases isolated outside the villages (e.g. at Agios Lavrendios).

While greater security had been a motive in abandoning seaside settlements and founding villages higher on the mountain, the coastal waters around Pelion and neighbouring Mount Ossa continued to be plagued by piracy and brigands and had a reputation for being wild and lawless places. Pouqueville, who travelled in Thessaly between 1806 and 1815, described the problems: "Mount Ossa, the head-quarters of those bands of robbers and plunderers lay Thessaly under contribution".[19] And he continues: "The peasants of this country, and those of Mount Pelion, have preserved a sort of fierce courage, which leads them often to engage in the piratical adventures of the people of Trikeri, at the entrance of the gulf of Volo".[20] Brigandry intensified in Thessaly during the struggle against Ottoman rule,[21] and various bands of brigands reputedly used Pelion as a base of operations well into the twentieth century. In some mountainous regions, these "cattle rustlers and brigands who preyed upon the countryside" were only eradicated by the emergence of ELAS during

15 We prefer the term "manufacturing centre" or "village industrialization" to describe the Pelion economy during this period. Although the villages did not manufacture value-added goods or experience a wider modernization process, it can be argued that a form of early industrialization took place that led to important social and economic changes on Pelion. This, among other things, meant the re-organisation of the economy for manufacturing and the development of metallurgy production. Industry structures used for the large smelting industry processing iron ore are still visible near the Taxiarches monastery. Zagora merchants would likely have been involved in the exportation of the ore.

16 Makris 1982.

17 Skouvaras 1959, 23.

18 Magnitos 1860, 56.

19 Pouqueville 1820, 117.

20 Pouqueville 1820, 117.

21 Koliopoulos 1981.

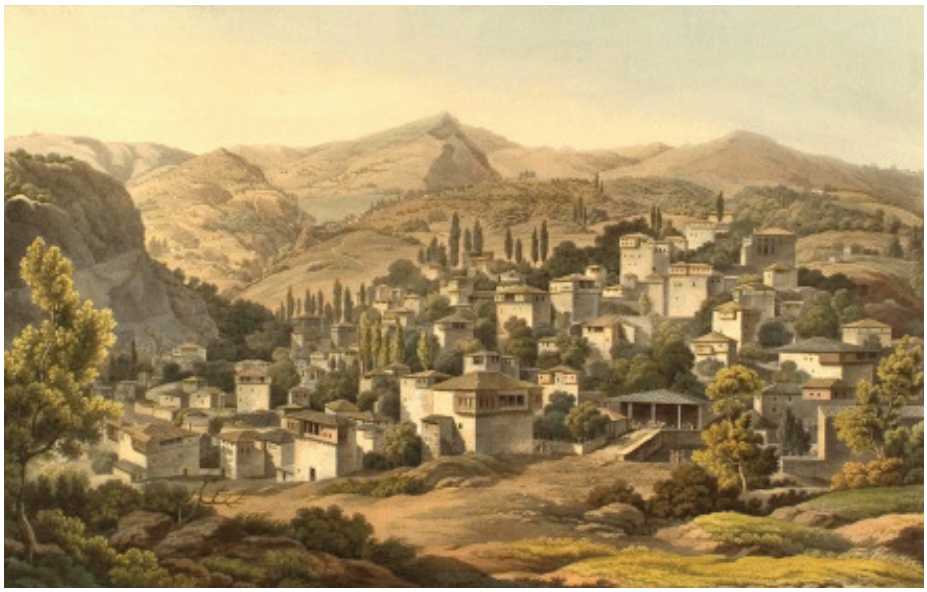

Fig. 1.3. Portaria in the nineteenth century (E. Dodwell, London 1819). After S. Pomardi.

the Second World War.[22] Tales of brigands pervade Pelion folklore and traditional songs ("brigand's songs") refer to both historically confirmed raids by brigands and to the relationship between villagers and brigands in general.[23]

1821-1881: Struggle and decline: Pelion joined the 1821 Greek revolution against Ottoman rule, but the revolution was crushed and in 1823, the Pelian villages of Ag. Lavrentios, Pinakates, Vyzitsa and Mitzela were burned. In 1854, a series of uprisings were organised in Epirus and Thessaly with support from independent Greece, but Ottoman, British and French forces suppressed the revolt. A Greek revolt erupted in Thessaly and Epirus during the Russo-Turkish war of 1877-1878, but the Ottomans soon stamped out the rebellion. In the end, however, Thessaly was incorporated into the Greek kingdom in 1881.[24]

From the mid-nineteenth century, building, construction and economic activity declined on Pelion, mostly due to the gradual development of Volos as an urban and industrial centre.[25] However, at this time, foundries and smelting constructions were established in Zagora and facilities for producing silkworm cocoons at Lechonia. Around this time, 50,000 inhabitants lived in the 24 villages on Pelion, according to Mézières.[26]

Before the middle of the nineteenth century, people had started moving closer to the coast and building warehouses and shops, but the coastal settlements on western Pelion were still insignificant. Agria, for instance, had only a few buildings, such as a hostel for caravans and a toll station. The settlement then belonged to the villages of Drakeia and Agios Laurentios and functioned as a port from which these

22 Sarafis 1980, 312-3.

23 Liapi 2006, 235-84.

24 Greece crossed the border in January 1878 with a force of 24,000 infantry, 300 horses and 24 artillery pieces, without having first declared war on the Ottoman Empire. The Greek Army reached Domokos and then retreated (before entering the Thessalian plain) because meanwhile the Russo-Turkish War had ended. While there were on this occasion rebel skirmishes against Turkish forces, no actual battles took place in Thessaly between the Greek and the Ottoman armies; see Kofos 1977, 339-40; Seisanis 1879.

25 Makris 1982.

26 Mézières 1854.

and other villages distributed agricultural and craft products.

In the nineteenth century, travellers noticed the small number of villages in Thessaly and the lack of agricultural activity. Nevertheless, there were exceptions. Despite the scarcity of arable land on Central Pelion, five municipalities had a density higher than 100 inhabitants per km^2 and were much more populated than the plains.[27] In 1881, the population density on Pelion was the highest in any district in Thessaly.

1881-1910: Growing importance of Volos and the bay area: With the annexation of Thessaly/Magnesia to independent Greece, the Muslim population started leaving the area. The growing urban centre at Volos experienced increased industrialisation and new workshops and factories appeared. The first pottery workshop opened in Volos in 1884.[28] The Pelion Diaspora and the arrival of Epirotes, Agrafiotes and islanders initiated much of the new development.[29]

Cultivation intensified in the countryside and the lowland villages on West Pelion started to grow rapidly after the annexation of Thessaly from the Ottomans. Further impetus came with the construction of a coastal road and rail network. Thessaly Railways decided in the late nineteenth century to extend their network eastwards, to connect Volos with the communities of Pelion. The new line extended from Volos to Agria (1892), reaching Ano Lechonia in 1896 and Milies in 1903. The railway was the first serious public investment in the area and would continue to be influential for many years. The new connection gave a boost to local producers of seafood, olive oil and black olives in the bay area. Local businesses were founded and flourished as the packaging and trading of olives picked up. Improvement of the infrastructure also set in at other places on Pelion after 1881, as many packhorse and footpath bridges were built across streams and ravines.

A large earthquake in 1885 and five months of occupation by Ottoman forces in 1897 during the Greco-Turkish War only briefly halted new developments. More serious was the deep conflict between major landowners and tenant farmers that had followed the annexation of Thessaly. Tenant farmers' claim for land redistribution and the struggle against the violation of their rights constituted an intense and continuous movement throughout the period 1881-1910.[30] While this conflict was mainly focused on the Thessalian plains, traditional land use on Pelion continued to focus on its rich forest resources. Hunting and forestry (e.g. charcoal production, wood cutting) were important elements of the local economy as were seasonal resources such as wild chestnuts and a wide range of fruit trees.

1910-1949: Conflict and settlement of refugees: The first half of the twentieth century was turbulent and marked by population movements, unrest and conflict following both local developments and events on the international scene.

The Balkan Wars (1912-13) and the First World War (1914-18) had demographic and economic consequences for Pelion and these conflicts were followed by a large influx of refugees from Ionia, Pontus, Cappadocia and Eastern Thrace following the Greek/Turkish population exchange in 1922/23. Immigration continued during the 1920s and in 1928, refugees accounted for 25% of the population in Volos and Nea Ionia. Many refugees also settled in coastal settlements along the Pagasetic Gulf (e.g. Agria and Lechonia). A solution to the landownership problem of Thessaly became imperative with the massive arrival of refugees from Asia Minor and the revolutionary Plastiras government finally settled the conflict in 1923.[31]

27 Sivignon 2009, 460.
28 Vroom, this volume.
29 After 1840, see Makris 1982.
30 Patronis 2009, 469.
31 Glegle 2009, 499.

A Greek expatriate community had been founded in Egypt around the mid-nineteenth century and it continued to grow during the first half of the twentieth century.[32] Many Peliorites had settled in Alexandria and Cairo and they contributed significantly to the financial life of Egypt. Wealthy Greek industrialists, traders and bankers established a thriving commerce between Greece and Egypt and they would later donate large amounts of money for the building of schools and hospitals.

The Italian (1941-43) and German (1943-44) military occupations of Thessaly during World War II led to atrocities in the Pelian villages of Zagora, Portaria, Milies and Drakeia. Resistance on the mountain was well organizesed and partisan activity continued during the Greek Civil War (1946-49).[33]

1949-1982: Migration to lowland urban centres: Many residents of Pelion migrated to Volos and Western Europe after the occupation and the Civil War, in order to make a living. Many villages and fields were left almost deserted. As a symbol of the demographic and economic downturn on Pelion, the Volos–Milies rail connection stopped operating in 1971, when it became too uneconomical to run. Simultaneously, rapid growth and urbanisation of neighbouring Volos contributed further to the decline of the Pelion villages, as all activities shifted to the new industrial centre. In 1911, the international cement plant "AGET Heracles" had been founded just outside Volos. This industry gradually became one of the largest cement producers in the world, employing a large number of people in the area. While mass production and mass distribution of industrialised goods increasingly took place in Volos, electricity, radio and automobiles were first introduced to Pelion in the 1950s.

Industrial progress in Volos went hand in hand with a general desire for increasing productivity and a need for local agricultural products. Lake Karla in the Pelian foothills to the west was an 180-km² wetland area (the second largest in Greece) that was completely drained in 1962 (draining was initiated in 1956), both to protect surrounding farmlands from flooding and the local population from malaria, and to increase agricultural production of cereals, cotton and vegetables. Before its drainage, it was the site of a unique fishing culture, with fishermen spending some nine months of the year in reed huts that they built on the lake. The lake fisheries were an important tradition and to some extent a significant economic activity. Kanalia, which lies between the hills and the lake, used to be dependent on the lake fishing, which was strictly managed by a company. Fish from Karla ("Kalrisia") were quite famous and reached the markets of Bulgaria, with carp as the principal species. Thousands of residents around the lake lived off it (fishers and stockbreeders), since its vegetation was rich and it supported numerous species of fish and birds.

The particular way of life that characterised the shallow lake and surrounding wetlands changed drastically after the draining. Material culture related to the wetlands, such as small sailing boats, canoes and fishing equipment, became redundant as fishermen were forced to turn to farming. Unfortunately, agriculture was never successful in the saline soils of the former lakebed and the permanent loss of wetland functions and values resulted in a broad range of environmental, social and economic problems.[34]

1982-: European subsidies and tourism: Greece entered the European Community in 1982. As important as farming subsidies were to the lowland farmers and agro-pastoralists of northern Pelion, income from tourism became equally important to the rest of the mountain.

Animal husbandry is not and never was particularly developed on most of Pelion, but there are a

32 Kitroeff 1983, 5-15.

33 Andreasen, this volume.

34 Gialis & Laspidou 2014, 1063.

few cattle and pig farms along the former Lake Karla and the lakebed was, until its recent re-flooding, pasture for a large number of farm animals. Goat herding in particular (with some sheep) has survived into modern times as an important segment of the economy along the lake. Goats are also raised in mountainous and less wooded terrain above Volos, east and north of Lake Karla and around Veneto on Northeast Pelion.

During recent years, Pelion has been successful in combining various cash-producing strategies, including tourism and commercial agriculture with a focus on fruit trees. While overgrown agricultural terraces above villages on West Pelion still speak of the post-war decline, the villages themselves have experienced a revival through the establishment of local enterprises and small industries. The most significant non-tourist enterprises are timber cutting, quarrying of local schist stone and plant nurseries. Located in one of Greece's premier apple-growing areas, the Agricultural Cooperative at Zagora, founded in 1916, is the main contributor to this town's recent prosperity through export of the famous *Zagora* apple. Widespread apple cultivation occurred after 1950 with the introduction of Red Delicious clones, and today annual production on the mountain is around 30-40,000 tonnes from trees cultivated at 300-800 m.a.s.[35]

Herbs, fruits, olives, homemade preserves and honey are important local products and are sold in great varieties to tourists in villages all over the mountain. In 1995, after a long interruption, the Ano Lechonia–Milies railway started operating again as a tourist attraction. The tourist industry also supports many restaurants, guesthouses and shorefront facilities on both sides of the mountain.

An ambitious reclamation project that started in 2009 to refill and restore part of the former Lake Karla was finalised in 2011. Support for the project from the villages around the lake was prompted by a desire to see their lost wetland environment fully restored, as it is expected to contribute to further development of tourism in the area.

1.3 A short history of archaeological research in caves on Pelion

From an archaeological viewpoint, Pelion is quite a poorly researched region; above its foothills, Pelion was widely regarded as having little or no potential for recovery of archaeological remains. Archaeologists seem to have devoted more attention to accessible hills and foothills near the coast with its well-known and documented sites (Sesklo, Dimini, Iolkos, Demetrias and Pagasae) than to the rough and densely wooded mountain. Early in the twentieth century, the archaeologist Alan J.B. Wace travelled on Pelion and recorded primarily Classical and Hellenistic artefacts and monuments but did not comment on caves in the region.[36] Other scholars also briefly dealt with the mountain in Antiquity, mainly through placenames mentioned by ancient writers.[37]

Particularly the mountain's cave resources have remained curiously unknown to the archaeological community. Excavations have remained small-scale and partial and to our knowledge, there has been no larger, systematic excavation in a cave anywhere on Pelion. In 1910, the archaeologist Arvanitopoulos made a brief excavation in a cave below the Plaka summit of neighbouring Mount Ossa during the first decade of the twentieth century. A number of dedications to the mountain nymphs, fourth/third-century BC pottery and fragments of terracotta figurines were recovered.[38] In 1911, the same archaeologist excavated the remains of a sanctuary probably dedicated to Zeus Akraios on the Pliassidi summit

35 Nanos & Dianelos 2011, 4.

36 Wace 1906.

37 Leake 1835; Mézières 1854; Bursian 1862-72.

38 Arvanitopoulos 1910, 183-4; Stählin 1924, 40.

of Pelion. The remains consisted of a peribolos, two temples and a stoa. Votive pottery and weapons were recovered and suggest a date around the fifth to the fourth century. A cave was located at the periphery of the sanctuary and it possibly served some cultic function in connection with Chiron or the deity worshipped in the sanctuary.[39]

The Ephorate of Palaeoanthropology and Speleology investigated Landovitos cave (ZAG-10-e) between Pouri and Kerasia. The excavation uncovered Roman remains, but no further information is available.

In the second half of the 1960s, archaeologist Dimitris Theocharis led a programme of archaeological explorations in several caves on West and Northwest Pelion in search of Prehistoric remains.

- At Sarakinos Cave (MAK-4?) west of Makrinitsa, Theocharis in 1964-65 found several engraved stone pendants including a hunter with bow and an ibex and dancing scenes. He also recovered earrings of elephant tusk and a hairpin of anthropomorphic shape, which he interpreted as Palaeolithic.[40]
- At Kostas Cave (MAK-17) west of Makrinitsa, members of the local speleology society recovered an engraved stone plate believed to be Palaeolithic.[41]
- Theocharis found Early Bronze Age sherds in a cave ("Cave Z") between Glaphyra and Melissiatika villages in 1968.[42]
- In "Cave A" at Vigla (KAR-8), south of the Ag Athanasios hill at Lake Karla, Theocharis reported several Palaeolithic-style cave drawings depicting mammoths and other animals including a wounded cervid, and three ivory statuettes. He made a brief excavation in the cave in 1969 and found pieces of ivory tusks and a bone pin.[43]
- Theocharis found Paleolithic artefacts in a small cave between Ag Vlasios and Ano Lechonia.[44] A stone artefact with an engraved horse was recovered in front of the cave.

Theocharis wrote about his findings from the caves in a series of short articles in a Greek archaeological journal.[45] Prior to his publication of the evidence for a pre-Neolithic presence in Thessaly, he had been warned by colleagues who disputed the authenticity of the rock paintings and artefacts, based on the style, composition and the motifs depicted.[46] Contemporary specialists such as G. Freund and A. Leroi-Gourhan examined the findings, but could not confirm their authenticity. Instead, they found indications suggesting that both the cave paintings and the mobile artefacts were the works of a local fraudster. As a consequence of this development, Theocharis suspended his research on Pelion. Apart from the forged objects and engravings, Theocharis also reported finds of "modern debris" mixed with Early Bronze Age ceramics and lithics and numerous animal bones. There is little reason to dispute that Theocharis came across genuine prehistoric material in his test trenches. Three of the above caves were located and re-visited by the Pelion Cave Project and archaeological material was collected at Theocharis' "Cave A" (KAR-8). In 2010, the Ephorate of Palaeoanthropology and Speleology of Northern Greece conducted a test excavation at the same cave. Artefacts dating to various periods from the Neolithic to Late Antiquity were recovered, but the

39 Arvanitopoulos 1911, 305; Stählin 1965, 41.
40 Theocharis 1966a, 76; 1966b, 255.
41 Ioannou 1964, 217-20.
42 Theocharis 1969, 223.
43 Theocharis, 1966a, 76-82; 1967a, 297-8; 1969, 222-3.
44 Theocharis, 1966a, 76-82; 1966b, 255.
45 Theocharis 1966a, 1966b, 1968, 1969. Two of these caves (Sarakinos and Ag. Athanasios / "Cave A") were relocated by The Pelion Cave Project.
46 Freund 1968, 418.

stratigraphic sequence of the cave has not yet been established.[47]

The Pelion Project's geologist recently (2009) investigated an underground mining gallery of possible Roman date southwest of Xourichti (MOU-2). Corridors show two faces of exploitation, probably one of the Roman period and one earlier phase. Ancient metallurgy in Pelion is mostly unknown and recent investigations of the Xourichti mine provide new clues about ancient mining practices in the region.[48]

It becomes clear from this short overview that archaeological field surveys and excavation on Pelion have remained unrelated to the cave use on the mountain of the last 1500 years. There are two main reasons why data on cave use has remained largely anecdotal. The first is that caves are often perceived as marginal sites in the historical archaeological landscape, with most interest centred on ritual uses. In economic terms, caves are usually regarded as low-status facilities. The second reason is that many aspects of Modern and contemporary heritage are not addressed within the wider archaeological community in Greece. Publications regarding cave use in recent periods tend to be restricted to site reports in local journals and there is a deficiency of synthetic overviews.[49]

1.4 What caves can tell us: Research questions

The Pelion Cave Project arose out of a desire to develop a more detailed and interdisciplinary discussion of the various uses and meanings of caves in post-Medieval and Modern Greece (Fig. 1.4).

47 http://www.taxydromos.gr/perrisotereseidhseis/tabid/152/articleType/articleView/articleId/35191/--.aspx

48 Vaxevanopoulos, this volume.

49 But see Faure 1964.

Our study focuses specifically on caves and rock shelters on Mount Pelion in Thessaly. Pelion was chosen for its rich heritage of caves, known in part owing to myths surrounding the cave-dwelling Centaurs, like Chiron. This mythological heritage is still maintained through symbolically or commercially valued use in naming and depicting local administration, restaurants, hotels and local businesses. An encouraging factor was that documentation and archival resources for the Modern and contemporary economic and cultural history of the region were abundant, so they could be cross-examined and investigated along with an archaeologically produced context of data.

Early post-Medieval	16th–18th centuries
Late post-Medieval	19th–20th centuries
Early Modern	1880s–1920s
Modern I	1930s–1940s
Modern II	1950s–1970s
Contemporary	1982-present

Table 1.1. The chronological divisions used for the post-Medieval period by the Pelion Cave Project.

As part of the project's pre-fieldwork preparation, we made a catalogue of all questions, aims and objectives that were considered potentially relevant or of interest based on our level of archaeological and historical knowledge of the region. Of course, we did not expect to obtain answers or information on all of these aspects, rather we were trying to map all areas of interest. An excerpt from the list gives an idea of our intentions and expectations:

- Function. Animal housing? Human shelter? Storage facility?
- Structures and use of space. How was limited space in a cave used and what modifications were required in the form of structures around caves? What causes people to make their various spatial

adaptations to caves? How visible would adaptations be in the archaeological record? How are pastoral and other activities organised in and immediately around caves?

- Chronology. Site construction sequence? Chronological range and frequency of artefacts on cave floors? When (and why) were caves modified, used, reused and abandoned?
- Landscape. Relationship to road, path? Land use in surrounding area?
- Cave ownership. Multiple ownership? Personal or family cave property rights?
- Food production and resource exploitation in and around caves. The degree of production of agrarian resources (crops, animals) in caves? Exploitation of natural resources from the area around the caves? What are the socio-economic use values of cave sites?
- Status and cultural difference. Is there anything in "cave artefacts" to suggest ethnic or social differentiation (Greek/non-Greek)? Are there any gender-specific artefacts?
- Cognitive/intangible associations. Can specific intangible associations whether in ideology, traditional customs, oral history or spiritual values be traced in cave material culture? And how are these (if at all) linked to broader transitions from traditional to industrialised society? What are the aims and purposes of different kinds of stories about caves? How do changes over time affect caves, stories, and the human audiences appreciating them?
- Regional differences. Possible continuities or qualitative differences between geographic or geological zones of the mountain (e.g. East and West Pelion).

As shown by anthropological or ethnoarchaeological studies undertaken on contemporary cave use, it is possible to extract significant information from structures, artefacts and graffiti preserved in caves and rockshelters and verify the accuracy of this data through informant interviews.[50] We intended to find evidence of land use, reuse and restructuring, or abandonment caused by changes in agriculture and local economy. At the same time, we wanted to explore contemporary daily practices in and around caves, thus gaining insight into the ways they are being used today or have been used in the recent past.

We had good reasons for wishing to employ a multi-site, regional approach rather than a localised study. One of our basic premises was that archaeologically visible features of pastoral activities or other cave uses are the outcome of both spatially and temporally diverse rural practices both on the local level and in their interaction with wider economic and political structures. Land use transformations caused by changes in agriculture, productive processes, demographic changes and increasing tourism have had profound effects on daily life in all Pelion mountain villages. To address these diachronic processes and their intersections would necessitate a regional scale of analysis.

We also wanted to take a closer look at relations between people and caves, including the role of stories in constructing meaningful places. Stories may be told orally by narrators or by material remains; they may be permanent or temporary. Stories may be linked, for example, to the cave's topography or geology, wildlife, cultural heritage or metaphysical creatures. Such stories can be historically accurate, purposefully invented or created entirely in the cave user's mind. Caves on Pelion occupy a central place in the way that recent historical events are remembered, and they are communally acknowledged as enduring loci for the convergence of memory and meaning concerning nineteenth- and twentieth-century resistance and liberation.

Finally, a secondary aim of the project was to collect a body of data as a basis for hypotheses and pos-

50 Flood 1997; Gorecki 1991; Galanidou 2000; Veth *et al.* 2005.

sible analogies concerning site use and function in the past. This would allow for a deeper archaeological insight into pastoral or other cave uses through their material relations, also contributing to a wider understanding of site formation processes. However, an examination of the range of Modern sites and examples simply provides a conceptual background for attempting to think through archaeological evidence encountered in the field. A look at cave use in the Modern period can provide a more representative and diverse picture than can be gained from archaeological investigations that concentrate on earlier periods alone. For instance, excavations rarely reflect activities such as herding, shearing, milking and cold storage of cheese. Gathering and interpretation of surface finds from cave floors and documentation of structures such as drystone walls, fences and stone pavements can demonstrate these activities.

Within this scope, the Pelion Cave Project had two overriding aims:

- To obtain detailed insight into the functional, economic and spiritual use of caves on Pelion, particularly during the late post-Medieval and Modern periods
- To address the potential of cave sites as a valuable resource for archaeological knowledge, regional history and local, living heritage

To approach our research questions in an appropriately analytical manner, we needed to structure the fieldwork so that it would take full advantage of all available diverse sources and sets of data, whether archaeological, historical or ethnographic, and to develop combined methodologies as close collaborations or real-time dialogues between archaeology and ethnography.

1.5 Ethnography and archaeology: mixing methods, combining practices

The interrelationship between archaeology and ethnography has formed a tradition of scholarship, growing into different branches and taking new directions in recent years, in what Castañeda has defined as the "ethnographic turn" in archaeology.[51] In a few words, today one encounters archaeological projects employing ethnography in an effort to draw parallels between the past and present, to decode past practices, to establish a communication channel with local communities and the public or to assess the discipline's socio-economical and ideological impact. At the same time, there are also research projects that treat archaeologists themselves as subjects of ethnographic enquiry and ethnographic fieldwork projects that interrogate archaeological practices and touch upon archaeology's disciplinary ontological foundations.[52] Within this context, both anthropologists and archaeologists are carrying out ethnographic work not only to serve archaeological research purposes but also to produce insightful accounts of the archaeological practice itself as applied in the field and communicated to local communities.

Within the contemporary Greek context and under the scope of the Pelion Cave Project, three main fields were of particular interest in shaping our own research methodology: a) ethnoarchaeological projects dealing with various aspects of traditional pre-industrial local communities such as pastoralism, herding, cultivation, habitation (Chang, Halstead, Bintliff); b) long-term or diachronic archaeological survey projects that have also applied ethnographies of contemporary Greek communities;

51 See Gould 1978, 1980; Watson 1979, 1995; Robin & Rothschild 2002, 167; Meskell 2007; Castañeda & Matthews 2008; Hamilakis & Anagnostopoulos 2009.

52 See Meskell 2005; Edgeworth 2006; Holtorf 2006; Hamilakis & Anagnostopoulos 2009.

and c) critical, reflexive, ethnographic accounts of archaeological disciplinary practices in heritage sites and excavation projects.

In the first category, one can draw a further distinction between two branches. The first includes scholars who have attempted to find parallels for archaeological artefact production through ethnographic documentation of traditional craft activities, such as pottery making. Another branch of ethnoarchaeological research in Greece employed ethnography as a tool with which to refine archaeological approaches to the study of pastoral economies. These investigations focused principally on the morphology of pastoral settlements and functional aspects of pastoral production. Several of these studies provided a stronger focus on structural remains of Modern pastoral communities. Chang, for instance, [53] has advanced the understanding of pastoral site morphology and her research provided much-needed social and behavioural insights into pastoral land management. Halstead has also provided valuable accounts of the pastoralist practices of rural mountain communities.[54] A recent and complementary development is the implementation of scientific techniques (e.g. geoarchaeology and phytolith analysis) at Modern pastoral sites.

In the second category lie archaeological survey projects with a diachronic approach such as the Methana, Argolid and Sphakia surveys. These projects have a wide time scope but a strictly regional focus, thus featuring a research approach that is quite similar to that applied by PCP. The Argolid Exploration Project (AEP),[55] a multidisciplinary study of the natural and human environment of the south Argolid region, had an extended time frame – from prehistory to modern times. Similar in focus is the Methana Survey Project,[56] operating in a neighbouring region in the Peloponnese Peninsula. These surveys integrated ethnography as a means to explore human interaction with the landscape through economic, social and symbolic practices. Forbes in Methana, for instance, endeavoured to "present an alternative view of a set of rural landscapes, seen not from the outside, but from within".[57] In like manner, Lucia Nixon in the context of Sphakia Survey [58] produced a study of outlying churches and icon stands from the Medieval period onwards, shedding light on an extended network of landmarks of both symbolic and practical function. In the case of the AEP, efforts approaching the communities of Koilada were also initiated and diverse outreach activities were performed,[59] reminding us that an archaeologist's work and responsibility extends beyond conventional understandings/definitions of the field.

Closely related to the ethics and politics of archaeology is the third category of archaeological ethnographies, which focus on the socio-political impact of archaeological practice and heritage discourse and stress the need to bring forward local, alternative views and values as opposed to official narratives. Recent studies include Lynn Meskell's archaeological ethnography of the Kruger National Park and the ethnography of the Kalaureia Research Project.[60]

Although maintaining an "ethnoarchaeological" survey character, the Pelion Cave Project has moved beyond the term's origins and conventional conceptualisation, defined as the investigation of archaeological problems through the study of contemporary communities,[61] and has engaged in a more complex

53 See Chang 1981; Chang & Koster 1986, 1994.
54 See Halstead 1998.
55 See Jameson *et al.* 1994; Runnels *et al.* 1995; Sutton 2000.
56 Mee *et al.* 1997.
57 Forbes 2007, xvii.
58 Nixon 2006.
59 See Stroulia & Sutton 2010; Kamizis *et al.* 2010.
60 Meskell 2005; Hamilakis & Anagnostopoulos 2009; Hamilakis *et al.* 2009.
61 E.g. Gould 1978; 1980; Watson 1979.

approach that integrates various elements of all the research strategies identified in the categories mentioned above. As a result, the ethnography applied in PCP acquired certain features and had a certain character:

A) Fieldwork was carried out in constant, synchronic dialogue and exchange with the archaeological survey. Ethnographic and archival resources aimed to contribute to the investigation of archaeological research questions whenever possible, since the object of study was the human use and perception of cave sites from the post-Byzantine epoch to the present. On the other hand, ethnography was constantly informed by the findings of the archaeological survey, thus integrating new questions and areas to explore.
B) Ethnographic fieldwork was at the same time multi-site and site-specific. Although ethnography was done in different types of locations (e.g. the village and town, the local library, a cave site or rockshelter), the purpose was always to reveal perceptions of and interactions with certain sites that would be identifiable by the archaeological survey team. It also maintained a strictly regional focus throughout the project's duration.[62]
C) Ethnographic fieldwork was carried out in close collaboration and interaction with the local communities in Pelion. Pelion villagers were not mere "informants", but contributors and participants often acting as guides in the field. A conscious decision was taken at the beginning of the project that PCP should go beyond the limits of a conventional archaeological survey restricted to the study of the material evidence, and try to embrace local values and perceptions of the cave sites and the mountain landscape. This was based on the acknowledgement resonating in the comments of the Koiladas mayor's with respect to the AEP: "The relationship therefore between the archaeologists and the local community should take place on time, should be timely, it should not take place after the fact, 'after the name day has passed', as we say in Greek".[63]
D) Finally, the ethnographic fieldwork in PCP also had a reflexive scope and impact in terms of re-approaching archaeological surveying practices and disciplinary methods for knowledge production. Having archaeological backgrounds themselves, the ethnographers took on the new trends and conceptions of ethnography's role and contribution to the archaeological discipline, such as Meskell's "Archaeological Ethnography" and Castaneda's "Ethnographic Archaeology".[64] Moreover, since they were perceived as "locals" compared to the project's international members, they were also aware of the implications of doing "anthropology at home".[65]

As a result, PCP is a project where archaeology and ethnography go hand in hand, aiming at exploring patterns and changes in the contemporary historical Pelion landscape by applying an anthropocentric perspective while at the same time taking under consideration the social implications of archaeological practice.

1.6 Applying an ethnoarchaeological approach in Pelion

The ethnoarchaeological approach adopted by PCP aimed not only to reveal material relations that could provide answers to archaeological questions, but

62 The survey and research area was well-defined right from the early stages of the project.

63 Kamizis *et al.* 2010, 425.

64 See Meskell 2005 and Castañeda & Matthews 2008. Although the term "Archaeological Ethnography" has been in use since 1977, it was only in 2005 that it attained a meaning that surpassed the conventional limits of "ethnoarchaeology".

65 See Bakalaki 1997.

also to explore the historical and socially dynamic relationship between local communities and their landscape. This approach entailed a certain involvement of the locals in the archaeological process as field guides, informants or discussants.

The impetus for this research strategy was the realisation that in the case of caves, a number of pastoral as well as non-pastoral uses can only be properly understood when related to historical and economic developments outside the studied region. In the wider scheme of things, it is believed that PCP provided an opportunity to document some of the ways in which regional, national and international economic developments and technological transformations affected traditional modes of production and societal dynamics in local Greek communities. In particular, by studying cave and rockshelter sites on a regional scale, we wanted to evaluate the restructuring or abandonment of land resulting from changes in the agricultural economy and increasing industrialisation, a process that reshaped all aspects of local life. As such, the Pelion Cave Project offers a useful counter-balance to case studies from open-air sites in Greece. The overall aims of the project were to be achieved by means of a survey, in which archaeology and ethnography were equal partners.

To stress and explain meticulously the close tie between ethnography and archaeology in PCP, it is essential to clarify that the boundaries of research and practice between the two teams were not strict, but rather fluid and constantly overlapping. Both teams were involved in each other's work in a manner that did not disrupt the investigation process or undermine the research goals. Therefore, on several occasions, the ethnographic team participated actively in the identification, surveying, recording of cave sites, familiarising themselves with site finds and cave locations and subsequently enhancing/readdressing their research questions, etc. At the same time, the members of the survey team also took part in interviews and discussions, in this way gaining valuable insight into local history and site use, but also becoming acquainted with informants that would navigate them around mountain tracks and show possible cave locations. Overall, this research design forced each team to think about the fieldwork in a more comprehensive way and provided an understanding of the challenges encountered by the other team.

Some discussion of procedure is necessary at this juncture, since among our goals was an attempt to demonstrate the value of information from mixed sources of data and delineate the logistics and practical aspects of combining archaeology with ethnography in such a way.

From the outset, we had a clear impression of the inadequacies of the usual methods employed by both disciplinary approache for reaching our objectives. Refinement of these methods had to result in something that could provide more in the way of a cultural history. Therefore, the essential requirement of the survey was not merely gathering a comprehensive body of data as a basis for a quantitative and qualitative inquiry about the function of cave use in the Modern period – our challenge also lay in deciding how to establish a relation between the ethnographic/historical and archaeological sources of information.

Archaeological survey

The selection of caves for inclusion within the survey programme depended upon knowledge of the distribution of caves at the project's start and discovery of new caves during the field survey. A list of known caves was compiled from the archaeological and speleological literature, and especially the files maintained by the Ephorate of Palaeoanthropology and Speleology of Northern Greece. These records indicated that 30-40 known caves fell within the boundaries of the survey region, but coverage was partial and its representativeness and significance were also unclear. HERON, an association of speleologists in Volos, provided additional and more

accurate information on a smaller number of caves. Small rockshelters and artificial caves of limited archaeological and speleological interest were generally not included in the records, but we wished to include these features in our survey as we had previously observed that activities taking place at such sites are similar or identical to those associated with caves.

We decided to divide the caves into four categories that we found had potential relevance to the way in which caves were used (cave, vertical cave, rockshelter, artificial cave). The geological classification used in the survey is based on speleogenetics and is therefore necessarily different from the archaeological one (see Vaxevanopoulos, this volume). Nevertheless, the two classification methods supplement rather than contradict each other.

- A *cave* was defined as a natural cavity in the bedrock with an opening large enough to permit entry by humans. The cavity should penetrate further into the bedrock than the largest dimension of its opening and it should have a permanent dark zone. The orientation of the cave in space is not definitive, and a pit (or *vertical cave*) was considered a cave if it met the minimum dimensions.
- A *rockshelter* is a natural rock overhang, a hollow under a boulder or a fluvial undercut that forms a protected shelter. Rockshelters are relatively shallow and are wider than they are deep with no cave component. Rock shelters usually do not extend to total darkness. There are exceptions since both categories can be part of the same natural feature or closely associated with it.
- The term *artificial cave* was applied to openings in the natural substrate constructed by humans, such as tunnels or mines.

It was realised before the start of the project that a systematic pedestrian survey of the heavily vegetated and often steep mountain slopes would be impossible. An alternative was to follow roads and paths by car or by foot and scout for potential cave-bearing outcrops. Surveys of several gorges, ridges, beaches and part of the Milies rail line was undertaken by foot in order to spot caves. The process of locating caves based on the Ephorate files was problematic because in most cases only a cave's association with a village was stated. However, it formed a good starting point for enquiries within each village. Targeted searches for caves described to us by informants often involved a combination of motorised transport and walking.

Our approach was to try to maximise information on as many sites as possible. In terms of recording, a handheld GPS unit was used to provide fast and accurate location of sites, apart from in a few cases where the unit was affected by the landscape, such as tree cover or mountainsides. A small field team consisting of two archaeologists and a geologist/speleologist conducted the recording of each site on a standard "site form", on which archaeological and topographical features were listed. This data was then ready to be fed into an electronic database. The advantage of this approach was that limited resources were spent on the recording of each site, making exploration of the entire mountain possible within three rather short field seasons.

In the absence of excavation, our only means of estimating use-date and type of use of a given locality was through diagnostic architectural elements or portable artefacts recovered from the surface. Cave floors and areas outside the caves were therefore systematically surveyed for any artefacts (in the widest possible sense). Visibility in and around caves was sometimes poor due to vegetation cover or layers of animal excrement. Particularly vegetation cover was a serious impediment to visibility as the litter of fallen leaves, as well as living vegetation, tended to completely obscure archaeological surface remains.

Our methodology originally included employment of a metal detector to search the top layer

for metal artefacts, but this plan was quickly abandoned as we anticipated considerable difficulties in obtaining permission from the relevant cultural authorities to use a detector. While metal detectors are routinely employed at archaeological excavations in Northern Europe, a stigma still surrounds the use of detectors in Greece. While the restrictions imposed on the public are understandable in the Greek context, it is not clear why detectors are not used by professional archaeologists. We have little doubt that a systematic search of the surface sediment (5 cm or so) in our case would have revealed a wide range of additional artefacts, including datable modern coins.

Criteria for selecting a cave or rockshelter for more detailed documentation were: 1) the presence of structures; 2) the presence of artefact concentrations; 3) details of its use that could be obtained from local informants. Structures, loose parts of structures and all other cultural material on the surface were recorded on plan drawings in 1:50 or 1:100 by either one or two persons with a tape measure and metre rule. While all visible artefact categories were collected, some types of non-diagnostic detritus were, for practical reasons, documented and described only in the field. Particular consideration in the form of drawing and photography was given to artefacts that might potentially date or shed light on activities carried out within or around the cave. Sometimes, people also engraved their names, initials, drawings or dates. All graffiti/engravings were digitally photographed and the images were later processed and redrawn in CorelDraw.

Initially, we discussed whether documentation of some sites should include limited excavation. Subsurface testing can help establish the extent, depth and possible age of drywall remains and other partly buried structures, or provide evidence for whether surface scatters of ancient pottery come from an exposed cultural layer. This would form a small component of the project as the primary aim was to document relatively recent features in the caves. However, our final opinion was that trial trenches would be too time-consuming and perhaps cause difficulties in future excavations.

Ethnographic fieldwork

A team consisting of two archaeologically trained, Greek-speaking ethnographers carried out the ethnographic fieldwork with a dual purpose: 1) to have a direct, synchronised exchange of information with the archaeological survey team, and 2) to be able to contextualise ethnographic data through combined pre- and post-fieldwork historical and archival research.

Interviews were conducted with local villagers to obtain a thorough understanding of the economic and social organisation and village histories as sources for explaining cave use, and to shed light on the relationship between material culture and behaviour at each cave. A basic cave use typology was developed by the project team and tested in all structured interviews or informal conversations. This typology includes 10 types of cave uses (see Chapter 4).

The ethnographic team operated in close dialogue with the archaeological survey team. This let us benefit from a feedback scheme that allowed us to 1) acquire information from informants on observed features in the caves, and 2) submit questions to informants that were directly related to observations in the cave or unidentified finds. In addition, documented topographical variables were used to generate a set of preferences for cave site location, which could be checked against informants' explanations as to why they chose specific caves for specific purposes.

We carried out semi-structured interviews and on some occasions had informal conversations with small groups in public places. In order to facilitate the categorisation, further processing and 'compatibility' of the ethnographic material with the

archaeological survey, we used a structured data sheet organised in sections (e.g. personal informant data, cave placenames and locations, cave uses and practices, local history and economy, oral tradition and personal narratives). Interviews with the villagers were conducted in Greek, summarised in English for the Danish field director. At the end of the afternoon/beginning of the evening, this information was used to plan fieldwork for the next day. This research method enabled the team to discuss findings obtained during fieldwork and to verify and correct possible misinterpretations due to language problems.

Informants were typically found in the fields during the day or in village squares in the evening. After contact was established, the ethnographic team would usually arrange an interview. On several occasions, informants were interviewed 'on the spot' while in the fields, or herding their goat/sheep, thus providing an opportunity to identify sites in the vicinity visually. Some informants volunteered to guide us to certain sites, this being an ideal means of identifying, dating and interpreting cave structures, features and artefacts. We would also return to informants to have further discussions in light of the survey findings. The majority of the informants were male, over 50 years of age and occupied in agriculture, animal husbandry or logging.

Archival research was combined with ethnographic fieldwork, not only to enhance available knowledge resources and fill in research gaps, but most importantly to set the local narratives acquired through fieldwork in a wider, historical context of the Pelion region in the Modern and contemporary periods. Archives and valuable resources were found in local libraries (e.g. Milies, Zagora), central libraries and institutions (e.g. Volos, Gennadius Library in Athens) and in personal and family collections to which we were generously granted access by Peliorites.

Although employed in several sites, from the village square to the local library to a rockshelter on the mountain, the ethnographic fieldwork maintained a situated character, aiming to unfold the perception and interaction of the locals with the mountain landscape through certain placenames, sites and landmarks. Only through such a situated approach, combined with an overview of archival resources, would it be possible to tell a "bigger" story of Pelion through its caves and rockshelters.