

Historical dynamics and environmental changes: the case of three villages in North-west highland Greece

Georgios Agelopoulos, Eleni Gelani, Georgia Sarikoudi¹

The study of a landscape is also the study of a specific place, lived and experienced, and the place is the experience of it - with its paths and passages, its squares and mills, its fields, its threshing floors and pastures, its houses with their ovens, the memories that all these carry. The landscape is marked by people, and this gives it logic and content.² Following such a perspective we focus on the life histories of inhabitants from three villages of the Gramos mountain range in NW Greece. Our research examined the social relations and practices produced historically and embedded in collective and individual time in an attempt to understand the dynamics of the landscape. From the memories of the locals, it emerges that local populations are constantly interacting with the environment, simultaneously and indiscriminately 'intervening' and 'adapting' to it, organizing their lives within it. In short, they are in perpetual motion, shaped and formed by and with a metonymic causality relationship with the landscape. Rural communities and their place are not stable, relatively isolated entities outside history struggling to survive inside a hostile natural environment. Rather, they are societies characterised by changes, technological developments, economic, class and cultural differentiations and divisions, influenced by wider political and social dynamics. Communities responding to these changes by simultaneously changing their place where the natural and human environment are not distinguishable but are two sides of the same coin. It is in this point that the theoretical contribution of this article is putting emphasis. A contribution that is consistent with other anthropological studies of highland communities in Greece,³ a contribution which is not limited by the impasses of the nature-culture division which for a long time dominated sciences and especially social and cultural anthropology as influenced by the work of F. Boas and C. Levi Strauss.⁴ It is worth pointing out that the representation of rural communities in anthropological studies influenced by structural functionalism until the 1960s and in folklore until the 1980s insisted on the logic of self-sufficiency of 'isolated communities' and their immediate dependence on their natural environment. Such concepts essentialized both rural communities and the environment⁵. In

¹ Assoc. Professor of social and political anthropology / PhD candidate in social anthropology / Postdoctoral researcher in social anthropology, School of History and Archaeology, Aristotle University of Thessaloniki.

² See A. Kyriakidou - Nestoros (1988: 14 - 40) and Skouteri-Didaskalou 2003.

³ See, for example, Damianakos et al. 1997, Nitsiakos 1995, 2008, 2015, Green 2005, Oikonomou 2007.

⁴ Discussing this issue exceeds the priorities of this paper. For a summary of the relevant critique see Hames 2007 and Descola 2013.

⁵ Dalkavoukis (2012b) and Nitsiakos (1995, 2015) offer the most comprehensive critique of Greek folklorists' approaches to community studies. The emphasis on community studies among British anthropologists dates since the interwar period and relates to ethnographic studies in Africa. Following WWII the work of R. Redfield (1955) provided a theoretical framework for a global use of the concept of 'community' as a research and analytical tool. The critique of this paradigm followed different paths, focusing on the false argument of rural communities self-sufficiency (see, for example, Stacey 1974), the deconstruction of the concept of cultural isolation (see, for example, Ardener 1987), the emphasis

contrast to this approach, this paper is based on a number of theoretical assumptions organized in the work of P. Descola (2013).

This paper is based on work conducted as part of a wider research project⁶ which studied the landscape not as a static image, but through the dynamics of its changes. It is an interdisciplinary research on the environmental and social history of the landscape in the southern Gramos mountain range. After examining many highland areas in Northern Greece (Northern Pindos, Prespes, Rhodope, Pieria, Vitsi, etc.) the project team chose the area of the southern Gramos, in the upper basin of the river Sarantaporos, focusing on the valley of Palea Kotyli.⁷ This area, in addition to the ruined settlement of Old Kotyli, includes three other villages, Nea Kotyli, Pefkoftos and Chrysi, together with the zone of crops, meadows and other natural and man-made habitats surrounding it. It is an area in the mountainous area that separates Macedonia from Epirus, an area that has long been far from urban centres and outside the main roads and paths linking west and east in the southern Balkans.

During the 20th century, intense historical, social and environmental changes have taken place in this area. We do not distinguish between the former and the latter because we consider environmental changes to be an integral part of the historical and social context and we recognise the environmental footprint produced by historical and social changes. Our study of the cultural construction of the landscape was implemented using qualitative research methods: ethnographic participant observation, open qualitative in-depth interviews, life histories. The ethnographic research in the area was carried out in the period October 2018 to January 2020. We collected material focusing on the contemporary landscape as a stimuli allowing people to offer their narratives.⁸ The emphasis on the environmental factor inherent in the wider research project led us to prioritise exploration of issues relating to house and settlement construction, crops, farming, animal husbandry, relationship with the forest, food, the organisation of work and daily life and forms of ownership. However, as is the case in the context of any ethnography, the locals led our discussions on topics they considered most important. We have no doubt that the material we gathered constitutes a presentation of life elaborated by collective and individual memory.

on symbolic construction rather than territoriality (see, for example, Cohen 1985). For a comprehensive but also concise critique see Pálsson, 1996. During the interwar period, attempts were made in Greece to formulate a native model for the study of rural societies based on the notion of community. Konstantinos Karavidas was the most prominent scholar leading this attempt. Since the mid 1930s the social and political context prohibited any further development of these attempts (see Komninou M. and E. Papataxiarchis 1990).

⁶ In the framework of the Action "Research-Create-Innovate" (EPANEK - NSRF), a partnership of institutions and companies including the National Centre for Research and Technological Development, three laboratories from the Aristotle University of Thessaloniki (Laboratory of Folklore and Social Anthropology, Laboratory of Forest Botany - Geobotany, Laboratory of Atmospheric Physics) and the companies "SYSTADA" and VERUS+, undertook the creation of an innovative 4D application for a tour through the history of the landscape. Through the application, users can travel through time, facing the same landscape at different moments in the past, but also testing alternative scenarios for its course in time or projection into the future. The app is available on-site to visitors to the area (via their mobile devices) and online. The project was titled 'Eco-TimeMachine: a 4D tour in landscape history'.

⁷ The criteria for the selection of this area are explained at <https://ecotimemachine.gr/> Palea Kotyli literally means 'old Kotyli'.

⁸ There are no published studies focusing on those three villages. The only available brief study is the work of Andreas Stefopoulos on the village of Chrysi. Stefopoulos served as an elementary school teacher in Chrysi in the 1970s (Stefopoulos 1972 and 1981). However, there are some relevant studies for nearby villages (Eptachori, Zouzouli, Pefkos, Grammochoria), from which we can draw some conclusions for the area under consideration (see Manos 1962, Raptis 1997, Sinanis 2010, Tsigalos 1979).

A presentation that responds both to 'what was there then' and to the needs of the present and the future in terms of what 'was there then'.

The area in the 19th and up to the mid 20th century

References are limited regarding settlements in this valley during the Byzantine and Ottoman periods. Such references provide descriptions of small villages and service stations (hospitals, monasteries) for those crossing the Gramos mountain range. For centuries the nearest towns and cities in the area were Nestorio (SE), Konitsa (W) and Kastoria (SE). Oral collective memory presents data going back to the beginning of the 19th century. The first information about the existence of these three villages is found in the memoirs of travelers in the late 19th century.⁹ Locals acknowledge the creation of their villages at about the same period. According to accounts of our informants, Kotyli was gradually constructed between 1820 and 1870 based on pre-existing uninhabited ruins. The village settlement was divided by a small river. On its NW riverbank there was the neighborhood of Greek-speaking families from southern Aitolokarnania. On the SE riverbank some Albanian-speaking extended families created their own neighborhood. They originated from the Epirus region of NW Greece and migrated to Gramos after the destruction of Souli by Ottoman military forces in the early 19th century. Locals refer to them as Arvanites, a term widely used in Greece to connote the Albanian speaking populations of Greek national identity since the 19th century. *As one villager mentioned 'Others came from Albania, others came from here, from the area beyond, from Hasia...'* (Gregory Evangellou, 89 years old). What is certain, however, is that the populations of all three villages (Kotyli, Pefkofyto, Chrysi) have at some point moved from various places further west of the northern Pindos mountain range. The words of Yannis Thomas, who was born in 1940 in the old village of Kotyli, are revealing. *'Some came from Epirus, others from Northern Epirus, others, as we say, from the Vio region [...] They were hunted by the Turks from the Peloponnese, from old Greece, people came here to hide, that's why they are called "Kachaounides", hunted. This place was deserted prior to their arrival... it was the forest and the mountains"*.

The gradual population growth in the early 20th century as well as the broader socio-political and environmental conditions¹⁰ lead to overseas migration to the USA and Canada. The remittances and the donations from the migrants improved the village infrastructure. The church of Kotyli was built in 1916 with donations provided by immigrants.

⁹ Kotyli (referred by its Slavic placename, Koteltsi) is mentioned as a village of 150 Christian inhabitants with a church and "miserable inn" in 1886. There are reports explaining that in 1905 or 1910 the village population was about 200 inhabitants and a boys school with 30 pupils was operating. Chrysi (Sllatina - a Vlach placename referring to the existence of a swamp or stagnant water) during this period had about 500 Christian inhabitants, a church and an inn. It is said that Chrysi was established around 1700 by cattle breeders from Epirus. In 1886, Pefkofyto (Visanskou or Vysanskou) had 170 Christian inhabitants. A school, affiliated to the Ecumenical Patriarchate, existed in the village in 1905 (Brancoff 1905: 182 - 183, Schinas 1886: 224, 816, Bardas A 41 (as cited in Lithoxou 2009), Traiou xx: 43 - 44). It is worth mentioning that the data provided for this region in population censuses of the late 19th and early 20th century are rather questionable, often influenced by the national priorities of those who conducted the censuses. However, there is no doubt that the inhabitants of the region were not involved in the events of 1903 - 1908 Ilinden uprising (<http://www.lithoksou.net/p/oikismoi-tis-kastorias-poy-arxizoyn-apo-b>). This means that they were forming their communities within the Greek national project.

¹⁰ The degradation of the soil due to overgrazing affected the ability of the fields to provide better harvest.

There are no oral testimonies, written sources and studies¹¹ mentioning the settlement of refugees in the area after the compulsory population exchange between Greece and Turkey in 1922. During the 1920s a few families of native Muslims from the neighbouring village of Myrovlioti migrated to Albania. Most of the Albanian-speaking Muslim families of Myrovlioti were exempted from the 1922 exchange by being categorised as Chams.¹² During the same period, the villages in the area were renamed and given their current names¹³ and administrative changes took place. Kotyli, which in the 1928 census is presented as having a police station, a community office and a primary school, formed the *Community of Kotyli* along with Glykoneri (formerly Dr[i]anovo), and Myrovlioti (1928).¹⁴ Pefkofyto and Chrysi, where there was also a post office and a primary school according to the 1928 census, formed the *Community of Chrysi*.¹⁵ At the same time, in 1927, the sub-prefecture of Kastoria was upgraded and became the province of Kastoria.¹⁶

Despite these developments, the modes of agricultural production, the trade networks and the infrastructure in the region does not present major changes from the late 19th century and until WW II. Local communities were mainly endogamous with limited social relations and marriage exchanges between neighbouring villages. Paparizos mentions that villagers from one village use to go to the folk celebrations of nearby villages. Support between villages were also evident. According to the same author, during the Balkan Wars a delegation from Pefkos went to Kotyli in 1912 and asked for support to their cause.¹⁷ Support was also secured through the local patronage networks established with Nestorio and Kastoria rather than with Konitsa. The results of national and local elections in these villages throughout the interwar indicates the stability of power structures and patronage networks established by Greek nationalists in the area during the late 19th. These networks became the basis for the support of royalist and conservative local MPs.

The place, as defined by our informants, included the built environment of the settlements, the facilities located outside the villages (water mills, threshing floors, paths and roads, beehives, chapels, sheepfolds, orchards, nearby gardens), the fields, the forest and special places with a symbolic dimension (the river trough where X drowned..., the 'tall tree, the monk's passage, etc.). Human presence was organised and framed differently in these zones. It should be pointed out that the forest was not conceived of as an undisturbed wild landscape, but contained places where man, flora and fauna coexisted (forest slopes providing wood, places to hunt, places to avoid, grazing meadows, hillsides where mushrooms were gathered, trees that bore fruit, etc.).

Families were engaged in agricultural production and logging. They also had livestock. The reported practice of the custom of *Perperouna* in the villages of Kotyli and Pefkos, a religious ceremony of begging for rain, indicates that irrigation systems were not developed and during the summer months drought was often a problem. Paparizos reports that sometimes drought periods lasted for more than sixty days. The consequences were the adverse growth of crops, drying of springs and streams, drying of grass.¹⁸ Reforestation and

¹¹ It is worth mentioning that Pelagidis (1994), in his important contribution on the settlement of the 1922 refugees in western Greek Macedonia, makes no reference to the area.

¹² On the history of Chams in NW Greece see Baltiotis 2011 and Manta 2009. Hart 1999 and Green 2005 offer useful ethnographic insides on the present day status of Albanian speaking communities in NW Greece.

¹³ Slatina was renamed Chrysi [Government Gazette 413 / 22.11.1926], Koteltsi became the community of Kotyli [Government Gazette 206 / 28.9.1927], Visansko was renamed Pefkofyto [Government Gazette 156 / 8.8.1928].

¹⁴ Digenis (1934: vol. 15, p.18).

¹⁵ Papaconstantinou, 1934: vol. 14, pp. 17.

¹⁶ Verrou, 2008: 182.

¹⁷ See. Paparizos1998.

¹⁸ Ibid: 59 - 62.

redefying the field division in 1928 was also reported in our discussions. These processes started immediately after the region was incorporated into the Greek state. The main crops included beans, leeks, potatoes, onions, cabbage and wheat for food needs as well as grits, corn, barley, 'tai' (*Avena*) and 'rovi' (*Vicia ervilia*) to provide fodder. The fruit trees existed in the area were walnut, pear, coral, plum, apple, a few cherry and a few quince trees. The fields near the villages were more fertile because they were regularly fertilised by animal dung. The more distant and mountainous fields were used for cereal production. Near the villages there were also areas with cultivated terraces. The fields were subject to crop rotation every year and rarely to fallow. Each family household had, in average, 15 to 20 acres of land. Most of them were barren, due to the cold environment, lack of water and fertilisers, as well as soil exhaustion. An aerial photograph taken in 1945 presents 563 ha of crops in this area. Assuming that a significant part of these were already abandoned or fallow, the remaining area corresponds with the estimated number of family households holding each one 15 to 20 acres of land. The class structure of these villages was composed by few families with large landholdings. The limited total arable land was not sufficient to significantly diversify the socio-economic background. Any class differentiation seems to have resulted from a combination of several factors: income from livestock farming, logging, migrant remittances.

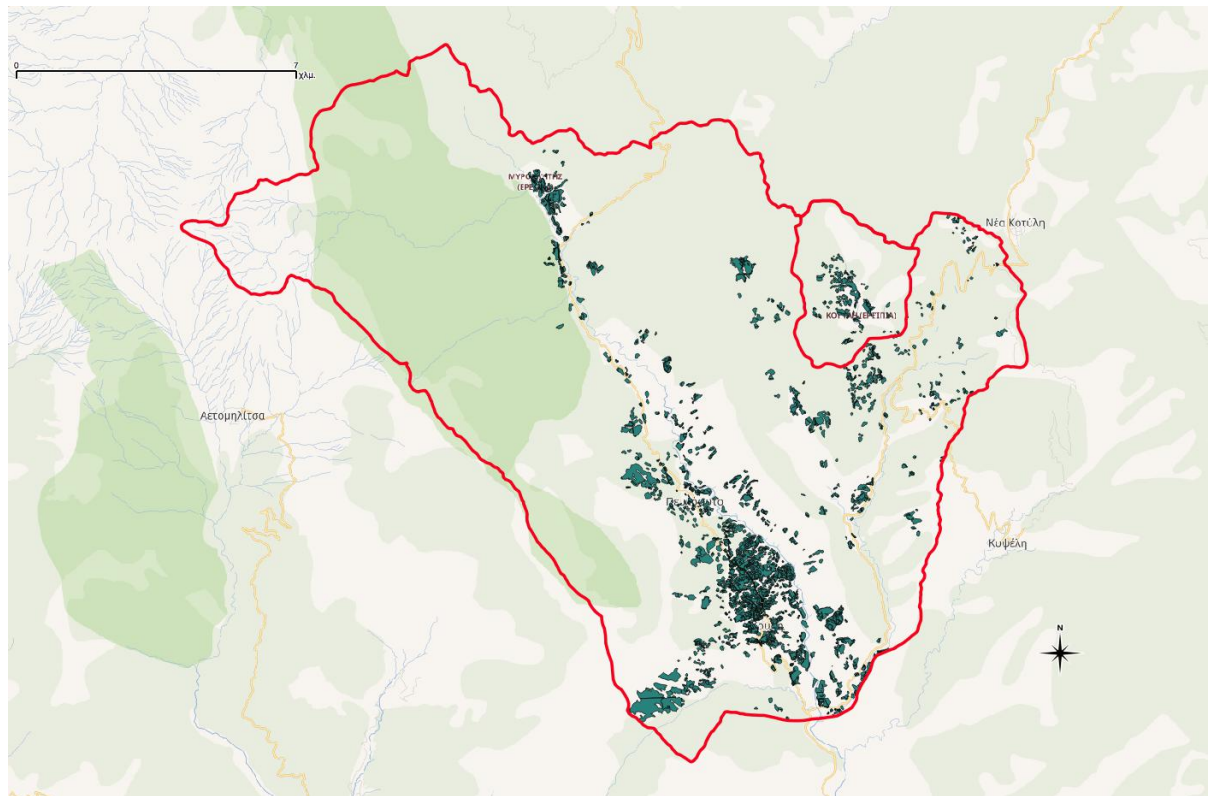


Image 1 Cultivated land in 1945

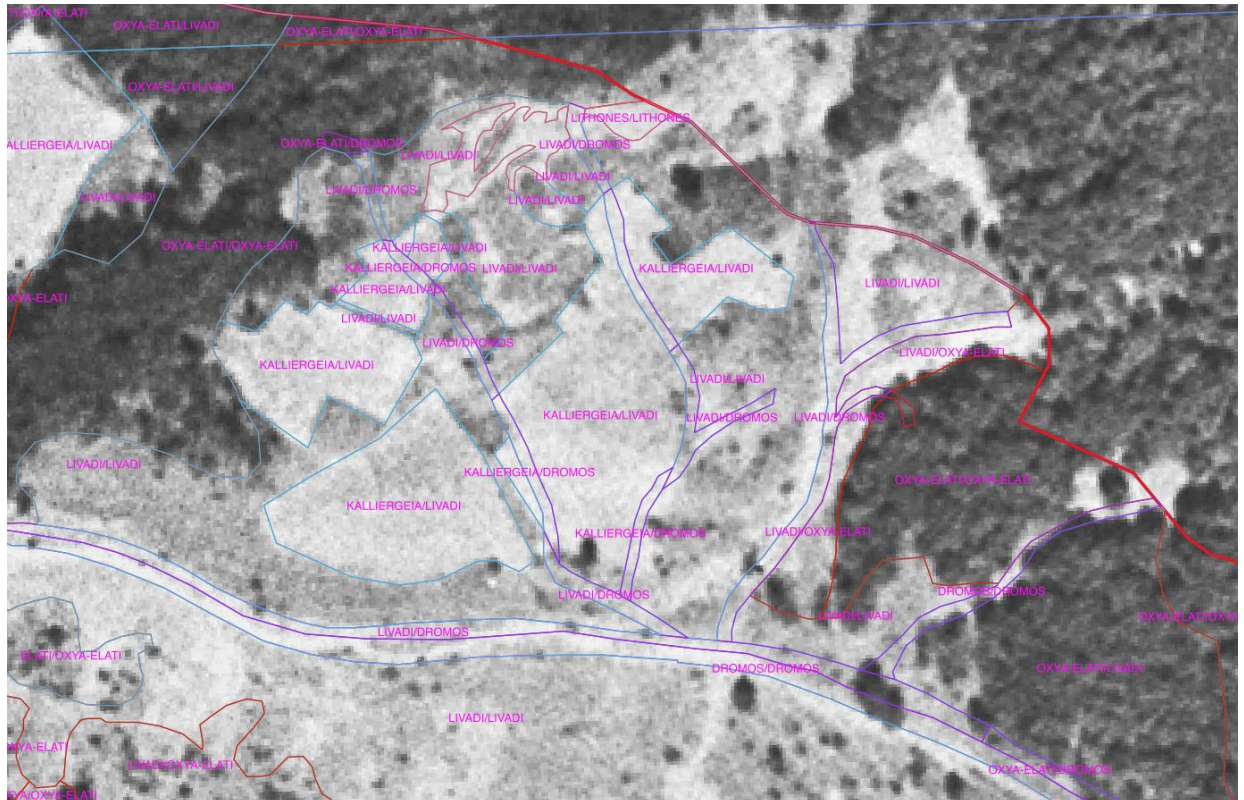


Image 2 Crops presented in the 1945 aerial photograph.

Cultivation was accomplished by using the labor force of all the family household members. The average family could cover the cultivation of 7 to 15 acres. In times of intensive work, families of the same clan cooperated in providing additional labor force. Gender differentiation was applied in a number of activities regarding the care of children, domestic work, the care of animals and hunting. The 89-year-old Grigoris Evangelou recalls: *'the best fields were around the village, with the isms over there. But the manure was not enough, they was always need for more. Villagers used to settle the sheep in some fields for a number of days. This offered some manure... There were no other fertilizers back then. We never cultivate the same crop in the same field. Year by year we changed the crop in each field... one year corn, one year wheat. In some cases we applied fallow.'* Mainly because of the location of the fields, wild animals often entered the fields in search of food, so people placed scarecrows or other deterrents. Alexandra Gounti and Panayiotis Efthymiou from old Kotyli recall: *«Bears often "visited" our fields. Villagers lit the lanterns with oil and put a dog to bark. They'd throw in a little petrol in the field, the smell prevented some animals from coming. Sometimes people would go and stand guard to prevent wild animals».*

Livestock farming offered, apart from meat, the ability to have dairy products such as milk, cheese and yoghurt. They were mainly used for self-consumption. Rarely, they were sufficient for sale. Every family had livestock but the number varied depending on the economic situation and the number of family members. Apart from one or two 'pairs of oxen', each household had an average between 100 and 300 sheep and goats in the 1930s and 1940s. Given that the estimated number of households during the interwar in the area was about 150, the resulting total number of sheep and goats is consistent with the records of the rural Management Studies conducted by the prefecture. Just before WWI 20,000 goats and sheep belonging to the villagers were present in the area. In addition, until 1946, the area hosted every year the herds of semi-nomad Vlachs and Sarakatsan nomads. They rented mountainous areas, such as the «Arenes», from late April to late October every year. Trade relations were common between them and the locals: *«when the Vlachs were coming, we*

were filling our baskets with suckers fruits and sold them to Vlachs. In exchange we receive wool». With such a large animal population, it seems that grazing was the decisive factor in shaping the vegetation and the overall environment of the area. In addition to the extensive grassland (about 17,5 % of the area in 1945), forests played an important role in the diet of these animals, through the practice of branching, i.e. collecting branches, mainly oak, to feed the stabled animals during the winter. As a result, the oak forests in the area were generally sparse and with small trees. The first Forest Management Studies vividly describe the «disaster» that these practices entailed.

In addition to the above activities, some villagers were involved in beekeeping. Young men from Kotyli and Chrysi were also working as craftsmen. As it happened in other mountainous Balkan communities, these men organized themselves in «bouloukia», collectivities with "bricklayers, charcoal makers, tailors, goldsmiths, potters, conductors, furnace makers, baxeantes (gardeners), painters» travelling around northern Greece in search of work until the 1940s.¹⁹

The forest was a source of both revenue and risks. The risks relate to attacks by wild animals on domestic animals, crops, herds and people. The main wild animals mentioned are bears, wolves, foxes, partridges, wild boars, hares, deer, elk and skunks. All of our informants report that these attacks were part of a larger mode of symbiosis between wildlife and humans. In addition to the techniques of protecting the crops mentioned above, the protection of flocks was based on human presence, by building strong wooden fences in the pens and by building walls around the houses. As a source of income, the forest offered hunting and logging opportunities. Furs, dairy products and logging products are the main commodities traded by the inhabitants of Nestorio. Hunting provides food and furs.

Pre-WWII logging differs significantly from post-WWII logging. Until WWII logging was carried out by families for their daily needs. There was limited systematic logging aiming to the market, traders coming from Kastoria. Due to the limited road network, logging was mainly carried out in the most accessible places near the villages, where it sometimes took the form of deforestation. Higher up, at the slopes of the «Arenas» the public forest was managed as a property by various local Cham families from Myrovliiti. They leased it to Greek merchants who used water mills to proceed the wood.

Market relations were not exclusively related to logging. The villagers of Pefkoftos and Chrysi visited the open market (bazaar) of Eptachorio, which «*may not have had the wealth of Nestorio but was closer in distance*». The villagers of Kotyli bought the necessary things from the open market of Nestorio every Saturday: «*on foot and with the animal, on the path, it took about 4-5 hours walking*». Everyday needs were also covered by the grocers who were regularly coming to the villages. The locals bought oil, wheat, wine and ouzo, tobacco, flour and fish, coal tar, fodder, rarely clothing. They sometimes used money payments but barter was also a common practice: «*whatever anyone had... wood, goat and sheep skins, livestock. Back then, it was difficult to buy... Anyone who had sheep had jackets*» (testimony of Alexandra Goundi, 82 years old).

A network of paths, narrow streets and alleys was used for communication between villages and the nearby agro-towns of Nestorio, Kastoria and Konista. The wider path, constructed in the 1930s, follows the current route between the three villages and ends at Nestorio. Parts of this path were available, under certain conditions, be used by lorries in the late 1930s. The oldest path between Kotyli and Nestorio, called «Charos» (death), was shorter in distance but rather rough and dangerous during the winter months. Nikos Antoniou (85 years old) from Pefkofyto recounts: «*we lost mules and people. Every year we used to fix it with shovels. It was scary to pass the mule. [...] We suffered*». These paths gradually

¹⁹ Skouteri-Didaskalou, 2008: 537.

disappeared, especially when paved roads were built in the 1970s. Today they are almost invisible, as they have been covered by the woods.

Population growth reached its peak just before WWII. Until the 1940s, a period mentioned by all informants as the heyday of their communities, the population grew gradually. Oral memory accounts refer to 70 - 80 houses in Kotyli and Chrysi (with 6 - 10 people in each house) and 50 houses in Pefkofyto in the 1930s - 1940s.²⁰ Other villagers had smaller population.

Changes in the mid-20th century

The prosperity of the region ended in the 1940s. This area was not a battlefield during the 1940 – 1941 war in Greece. The picture changed, however, after 1943, when the area became the main refugee of guerrilla groups and the main theatre of the Greek Civil War in 1946 - 1949. Undeniably, the villages of the area and the environment were affected in various ways by the consequences of the Civil War.²¹ One of the events which inaugurated the Civil War was the execution of the Kotyli National Army Gendarmerie detachment by leftist forces.²² The superiority of the leftist Democratic Army (DSE) forces in the area caused reprisals by the National Army. A memo of the DSE states that after the Varkiza Agreement and specifically in the period between 23 and 30 November 1946 a number of violent incidents took place at Kotyli. The National Army Gendarmerie executed a leftist villager named Thanasis Goutis. The Gendarmerie imprisoned and tortured other villagers (Th. Elias, G. Stergios, P. Antoniou, A. Kosmas, N. Nikolaou, H.G. Goutis and Ch. Stergiou). There was also looting of the households of left-wing residents, namely those of the local priest I. Papadopoulos, N. Nikolaou, Th. Stergios («15 sheep»), G. Stergios («500 ounces of wheat»), E. Theodorou («20 ounces of butter»), while the whole village was forced to provide to the Gendarmerie «3,000 ounces of bread»²³ (i.e. 84 kilos). It should be noted that with the exemption of R. Alvanos monograph, studies related to the events of the Civil War in this areas mainly focus on the military events.²⁴ Therefore little evidence and information is available on the environment of the region.

The most important development during the Civil War was the compulsory evacuation of the villages imposed by the National Army in May 1947. Families were transferred to Kastoria, Nestorio and other nearby to Kastoria villages (such as Kolokythou, Mesopotamia and Maniaki).²⁵ The whole process was part of Operation Terminus implemented during the Civil War to deprive the Democratic Army of material and human resources provided by the rural communities.²⁶ The priest of Chrysi recalls that "*they took us there, to the church mill we used to call it, and from there they took us to Kotyli. And there were the military jeeps waiting for us... and they loaded us and took us to Dispilio, Argos and Kastoria. There were some elderly women, like my mother, who had never seen a car before*

²⁰ The population growth is confirmed by official state censuses. In the 1928 census Kotyli had 364 inhabitants, Pefkofyto 231 and Chrysi 383. In the 1940 census the number of inhabitants increased.

²¹ Many of our informants referred to these consequences. Their accounts are confirmed by archival material. A report produced by the Democratic Army in 11/11/1946 outlines the activities of its forces in Kotyli and Pefkofyto (see DSE/ODEK/Gramos Headquarters). The National Army had also closely monitored the local developments. A number of reports and other relevant documents are available in numerous files at the I.I.S. Archive (see 22/E/681/Δ/29, 4/Δ/1540/108-109, 4/Δ/1540/79, 5/1292/57, 22/E/668/13, 1/A/1037/1, 5/1277/36).

²² Action Report 7-7 to 6-11-1946, IDF/ODEK/Grammos Headquarters, 11 Nov 1946. See also Rodakis and Grammenos 1987.

²³ Memorandum IDF 1947, Athens 1987

²⁴ See. Alvanos 2005 especially for the settlements closest to the area.

²⁵ These movements are also mentioned in Alvanos (ibid.) and Paparizos (1998).

²⁶ Nikolakopoulos et al., 2002, provides a comprehensive analysis of the Terminus operation.

that day... They took straw to feed the jeeps, they thought they were eating straw". Another villager from Kotyli remembers: «the National Army attacked, they were chasing the partisans, the villages were liberated, they told us "follow us" and we followed the army and then they took us down to Kastoria, Nestorio, Mesopotamia, Argos Orestiko. They gave an order and in three days the village was emptied. Each one of us took two or three animals and whatever else was possible to carry».

The village of Kotyli was bombed by the Democratic Army artillery and the National Army Airforce without suffering significant damage. Ioannis Thomas remembers about his village before it was evacuated: *"in '47 the planes came and bombed the village. Kotyli was guerrilla-occupied. Nothing could pass there. The entire village was blocked, guerrillas and so on [...]. A certain Captain Giannoulis had his headquarters there».*²⁷ Daily life was affected by these bombings and the military operations. Even today, in the forest one can still find bullets in the tree trunks. For many years people digging in the earth accidentally found landmines. In the 1950s and the 1960s some villagers were injured or killed by landmines. Moreover, when the people evacuated their villages, they left not only their homes but also the land uncultivated. Bushes and hornbeams covered the paths, fields were filled with weeds and forest animals destroyed the remaining crops, leaving behind a wild landscape. Some left-wing families secretly remained in the villages in 1947 - 1948 or attempted to move cattle to graze close to the villages. But this was not enough to prevent the land from becoming desolate.

After the end of WWII, in 1951, the villagers of Chrysi and Pefkoftos returned to their villages. The children from Chrysi, who had been transferred to children's safe houses, returned in 1953-1954. However, in the case of Kotyli things went differently; some residents returned in 1950 - 1951 and found their houses damaged. These were mainly families of shepherds who intended to reestablish their herds. After a referendum among the villagers and with the encouragement of the local authorities, the villagers decided not to return to Kotyli but to establish a new settlement in the area of today's Nea Kotyli. The 89 year old Gregoris Evangelou, who was 17 years old at the time, has vivid memories: *«half of them didn't want to return to the old village... They didn't want to! They said we should stay here at the lowlands, make a new home here...».* *«A committee was established by the villagers of Kotyli. From Kastoria they were chasing us away, how will it be? Some said we should go to Prespes lake region where there were several abandoned villages, most of them supported the idea of constructing a new village at a place called Gkurousia»* says Yannis Thomas. His first cousin, Georgios Evangellou, elaborated the events: *«those who wanted to go back [to old Kotyli], they did it. They got with them their sheep and goats. My family, for example, wanted to return there [i.e. to old Kotyli] because we had our shepherds' huts up there... About 30 families felt more comfortable to live at the place of the new village. After 1955 we all left the old village...».*

Local authorities encouraged the villagers of Kotyli to abandon «the old village». Given the post-Civil War political context, there was a widespread fear for a return of the Democratic Army forces. Highland villages were perceived as potential supply hubs for the leftist guerillas.²⁸ In addition, the new village was located close to the fields they cultivated and to water sources, but especially closer to the main road to Nestorio and Kastoria. The final decision to establish the new village was supported by the state's granting of a sum of 700 drachmas per family and animals (5 - 7 goats, 2 mules and 2 cows) to start their life in the new village. Those who were systematically engaged in animal husbandry chose to use the houses of old Kotyli. Gradually, the old village of Kotyli was abandoned and the majority of the inhabitants settled in Nea Kotyli.

²⁷ George Giannoulis (1915 - 1948) was a native of Eptachori, a village located northwest of Kotyli. He was an emblematic political and military personality of western Macedonia during WWII and the Civil War (see Tsitas 1992).

²⁸ In this respect see Nikolakopoulos et al., op. cit.

On their return to the villages of Pefkoftos and Chrysi their inhabitants had to face various problems. The devastation caused by the bombing and specially by the use of incendiary bombs all over the area of Gramos as well as the existence of uncharted minefields prohibited access to certain areas (mountain paddocks, paths, etc.).¹⁶ One informant, Yannis Thomas, called it a «disastrous mistake» to return to the village without checking and clearing the area of mines. «*Here this place has all the remains of the Civil War... My son and I went to collect herbs, we brought back some guns, I still have them there. We also brought bomb shells*». As he explained to us, his father and many of his fellow countrymen, including some girls, were killed by landmines. Himself he lost his arm after a landmine explosion.²⁹ The overall context of the Civil War, forced relocation, limited support by state authorities for those who returned to the villages and the political persecution of the leftists during the 1950s, had decisive effects on local communities. They lost their ability to reconstruct their social milieu and their modes of production. Their population was declining due to migration. Fields and pastures were abandoned, afforestation of paths, fields and orchards developed and land degradation increased.

As demonstrated through the interpretation of the aerial photographs, crops, while in 1945 covered 5% of the total land available, by 2015 they had almost disappeared, while grassland had decreased from 17.3% to 12%. Forest areas increased by 22% or 1,374 Ha. In the same period, mainly due to a reduction in grazing, the degree of tree cover increased significantly, both in open and forested areas, leading us to estimate that total tree cover increased by 95%, i.e. almost doubled.

Despite all the difficulties, an attempt to rebuild the villages³⁰ and reshape the landscape prevailed in the early 1950s. Agriculture gradually began not only to meet household needs but also to generate a surplus, which was channelled into trade. Cereal crops gradually declined and fodder crops dwindled to the point of extinction. At the same time, the use of commercial fertilisers in crops and orchards became widespread. From the 1950s until recently, beekeeping was developing. Our informants report that in the 1950s-1960s each household had 10 to 15 beehives for its own needs.

The forest continued to be a source of income for the residents in a variety of ways. The restrictions that were gradually placed on hunting eliminated the possibility of income from the sale of wolf, bear and pine cone fur. There was illegal hunting which occasionally brought in considerable income. «*The skunk had money. Back then it might have had a hundred, a hundred and fifty drachmas. It was a lot of money. Four hundred drachmas a skunk was enough... That is, a flock of 150 sheep did not reach the value of one single skunk*», Vaso Evangelou and her brother Athanasios remember. The reduction of cultivated land, the abandonment of the paths and the decrease in the number of inhabitants strengthened the restoration of the flora and fauna that had been affected between 1946 and 1949. Compared with the pre-WWII period, a reduction in the population of wild geese and roe deer was reported after 1950. In contrast, an increase is observed in the population of wild boar and bear.

Changes after 1960

²⁹ Such experiences were common in rural Greece in the 1950s and the 1960s among villagers living in areas on NW Greece where the most intensive battles of the Civil War took place. They have produced commonly held narrations presenting the decision to return in these areas as a fatal mistake (for example: Dalkavoukis et al. 2012). These narrations are used to justify the migration from these areas to the main urban centers in the 1960s.

³⁰ Voglis et al. 2012, Iatrides 1984, Mazower 2003.

Since the 1960s the population of the villages rapidly decreased, as, following the trend of urbanization, many residents moved to Kastoria or to the big urban centres or abroad (mainly to Germany and Canada). Living and working conditions in the villages were difficult and many people, especially the youth, decided to abandon farming in search of better job opportunities. Georgios Evangelou from Kotyli remembers that at the age of 14 he had gone to be a shepherd because there were no other older people in the village. «*Since the '60s, people started leaving and moved to Kastoria. There was the furs industry growing, there was money in fur, you understand? And my whole generation moved to Kastoria*». In 1965 he came down to Kastoria himself to become a worker at first and then he opened his own shop and made furs.

The landscape continued to transform and reflected the historical and environmental dynamics taking place. In 1964 there was subsidence in the lands of Pefkoftos and by decision of the Prefect most of the residents moved to the village of Maniaki, 3 km southwest of Kastoria.³¹ Vasiliki Mantziou (82 years old) from Pefkofyto, recalls: «*those who had animals were late to come down... They were given a loan of about 50,000 drachmas*».

Residents of Chrysi, Pefkos, Nea Kotyli and Zouzouli gradually moved to the same village, creating their own neighbourhoods on the basis of their origins from the villages they left behind.³² A little later, in the early 1970s, the villages changed radically, as the areas were electrified, an organized irrigation and water supply system was constructed, while at the same time the road network was completed, approximately the one that is still used today, leaving the paths in the past. Traveling to the villages became easier and faster, people had the opportunity to move more frequently from Kastoria to the villages and vice versa. In this way, trade was facilitated, as well as social contacts with the neighbouring villages. The post-Civil War social and political context as well as the dramatic decrease in the population of the three villages of the region led to the minimization of the importance of any differences that existed due to linguistic and cultural origins of the populations. The devastation of the Myrovlitis resulted in the definitive disappearance of Muslim populations from the region. In the post-WWII decades, the marital exchanges extended beyond the social networks that existed since the 19th and early 20th centuries. The same is true of trade networks. The pre-modern rural household economy comes full circle in the 1960s.

Since the mid-1970s, the cultivation of the fields around the old village Kotyli ceased. The houses of the old settlement have been gradually destroyed because the stone was removed and used as building material in Nea Kotyli. Further changes in the landscape were also caused by the great fire of 2007. In particular, on 18 July 2007, significant areas in the Municipality of Nestori (Kotyli, Kypseli, Giulio, Livadia and Koziaka), in the Municipality of Arrena, in the Municipality of Vitsi, were reduced to ashes. The fire was burning for 20 days and had important impact on some of the forests and mountain of Pindos, along with countless areas of pastures and crops. According to the accurate estimate we made through photo interpretation, 304 ha were burnt in our project's area, mainly in the valey of Kotyli and the surrounding slopes Elias Efthymiou says of old Kotyli: «*Until 2007, when the Gramos caught fire, a large part of the houses in the far mahala were still standing. There were 5 - 6 houses that I can say seemed to be normal houses. With flat roofs on top, with their windows of course not glazed, but they were upright*». His neighbor, Georgios Evangelou, adds: «*then came the total destruction...*».

The gradual depopulation of the villages is reflected in the changes in the way everyday social relations have been organized in the last two decades. Villages are sparsely

³¹ On soil degradation and its social consequences in mountainous Epirus see Green 2005. On the desertification caused gradually in these cases see Beopoulos and Papadopoulos 2008.

³² *Historica Kastoria, Administrative and population data of the settlements of Kastoria after the liberation (part 2): 1950-2015* [<http://istorikastorias.blogspot.com/2015/06/2-1950-2015.html>] (17-6-2015).

populated and nothing resembles to the old vitality. Today there are two grocery stores and two cafes - taverns in Chrysi, one cafe - tavern in Pefkofyto and one cafe - tavern in Nea Kotyli (operating occasionally). Every Saturday - Sunday villagers are going to Kastoria for shopping and entertainment. However, in the summer months the population in Nea Kotyli and Pefkos triples and the population in Chrysi doubles. The most important annual moment of sociability is the summer festivals where those who live in the villages and those who come from them but live in other cities in Greece and abroad celebrate together.

Agriculture gradually covers not only the needs of the household but is mainly channelled in the local and national markets. The main crops continue to include beans, leeks, potatoes, onions and cabbages. In addition, all kinds of fruit and vegetables have been added, grown in family bauxite gardens or in the backyard of every home. Cereal crops are gradually being reduced and fodder crops are dwindling to the point of extinction. The use of commercial fertilisers in crops and orchards is becoming more widespread. In Chrysi there is a beekeeper with significant honey production and modernized facilities (electric fencing to protect the beehives from bears and other animals). The forest continues to be a source of income for the residents. Due to regulations set by the Forestry Department of the Prefecture and due to the gradual change in demand for the type of timber, logging practices are changing. The area is divided into three forest clusters and the preparation of regular Management Logging Plans is initiated. Large areas that have been abandoned since the 1940s or earlier are gradually afforested and also enter the management regime. The same applies to parts of the area which were inaccessible in the immediate post-Civil War decade because of the minefields. Logging is practised individually/family for household needs and systematically/groupwise for timber to be sold to traders. The merchants buy on the basis of prior agreements and they came not only from Nestorio and Kastoria but also from Neapolis, Kozani and the rest of Greece. Starting in the 1960s, cooperatives were created in the villages, some of which still exist today. The cooperatives achieve better prices in trade and at the same time expand the model of wage labour by hiring forest workers from neighbouring areas (Nestorio, Kastoria, etc.). The extensions of the forest road network make it possible to log many areas. The type of timber felled is beech and oak firewood, as well as pine and spruce for other uses. As the forests are restored, the total amount of timber harvested increases: according to the Management Studies, from 18,500 tonnes in the 1950s to ten times that amount, i.e. 185,000 tonnes in the last decade.

Livestock farming involves domestic animals and herds. Domestic animals include chickens (which are kept in chicken coops in the yard of the house), pigs, mules and cattle. Flocks included sheep and goats. An informant from Chrysi reports that experienced village farmers quickly multiplied the animal populations. Her father went from 30 goats and sheep in 1955 to 100 in 1960. Another informant from Chrysi reports that in the 1960s the village had a total of 12,000 goats and sheep and 200 oxen. However, the estimates of the present day Management Studies present lower numbers (about 5-6,000 goats and sheep). Income coming from the herds has helped a lot in increasing the living standards of those families which remained in the villages. Herds live in sturgeons near the villages in the winter months and in more highland areas in the summer months. Since the 1990s and until today there has been a steady increase in the number of Albanian migrants working as shepherds and living permanently or seasonally in the villages. Nomadic and semi-nomadic livestock farming (Sarakatsans and Vlachs) has been gradually decreasing. Vlachs and Sarakatsans continue to this day to rent pastures mainly near the ruins of the Myrovliti.

In recent decades, hybrid efforts to create other sources of income for residents have also emerged. The expansion of the road network has contributed to these efforts. A trout hatchery and a small woolen carpet manufacturing industry operated in Chrysi for some years. Some farmers turned not only to production but also to the processing and marketing of special agricultural products (herbs and medicinal plants). Lastly, the forest is an attraction for

hikers and there are efforts to develop ecotourism in the area. The establishment of the River Party in Nestorio in 1978 launched the efforts to develop tourism in the area. Two hotels and a guesthouse operate in Nestorio on an annual basis. A guesthouse operated until 2016 in Nea Kotyli. In the period 2017 - 2018 refugees were settled in this hostel following an agreement with the International Organization for Migration. After an initial period of awkwardness, the few inhabitants of the village accepted the presence of refugees positively. Some refugees even worked occasionally, helping the elderly and doing work in gardens, yards, etc. The departure of the refugees from the hostel resulted in its closing down. Of particular interest is the development of a kind of excursions and «memory meetings» that take place in the area and relate to the events of the Civil War. The main factor in the development of this form of historical tourism has been the creation of the National Reconciliation Park (1988). The Park began operating in 2012 and to date has received approximately 40,000 visitors.

Concluding remarks

Kotyli, Chrysi and Pefkoftos have followed a similar course to other highland communities of the southern Balkans over the last two and a half centuries. They were established as settlements seeking a safe distance from the Ottoman state authorities and operated in a framework conventionally called pre-modern economy, indicating a specific configuration of the environment and by the environment. Their villagers coexisted with nomadic and semi-nomadic populations sharing the same environmental resources. The social boundaries of the three villages were indicated by the patronage and market networks in which they participated and the marital exchange relations with other communities in their immediate geographical vicinity.

Villagers maximised their interaction with the environment by giving it new dimensions, investing in seasonal migration and reaching a demographically critical point of enlargement in the first decades of the 20th century. As a landscape the environment has been marked by villagers and this provides it with a certain logic and content. The case of the Civil War shows that this marking, when imposed externally, became an altogether ominous reality. The forcible entry of these three villages into a version of modernity took place through the ashes of the Civil War, in conditions of structurally forced abandonment of the region and the subsequent social and economic degradation of the countryside. Starting from the 1950s villagers from this area are engaged in various forms of internal and external migration. The landscape has changed (landslides, fires, roads, etc.), while people continue to enrich it with new social meanings through memory and new productive activities.

The demographic destruction of Kotyli and Pefkoftos appears today as hardly reversible. Chrysi still has some families with children and a potential for a demographically positive restart. Regardless of population data, the three villages exist in the rituals of the summer festivals where the sense of community bond is reconstituted, they exist in internet groups and in the memory narrations established in the villagers' associations in Kastoria, Athens and abroad. What is common in all these modes of community formation is an indiscriminate context, both as a structure and as a framework of choices, between the people and the environment.

References

Αλβανός, Ραϋμόνδος. 2005. *Κοινωνικές συγκρούσεις και πολιτικές συμπεριφορές στην περιοχή της Καστοριάς (1922-1949)* (διδακτορική διατριβή). Θεσσαλονίκη: Αριστοτέλειο Πανεπιστήμιο.

- Ardener, Edwin. 1987. «Remote Areas: some theoretical considerations» στο A. Jackson (επιμ.) *Anthropology at Home*. London: Tavistock Publications, σσ. 38 – 54.
- Baltsiotis, Lambros. 2011. «The Muslim Chams of Northwestern Greece: The grounds for the expulsion of a "non-existent" minority community». *European Journal of Turkish Studies*, 12: 1-31.
- Βόγλης, Πολυμέρης, Φ. Τσιλάγα, Ι. Χανδρινός, Μ. Χαραλαμπίδης (επιμ.). 2012. *Η εποχή των ρήξεων*. Θεσσαλονίκη: Επίκεντρο.
- Brancoff, D.M. 1905. *La Macédoine et sa population chrétienne avec deux Cartes ethnographiques*. Paris.
- Βέρρου, Θώμη. 2008. *Τοπωνύμια και Διοικητικά Κατανομή Οικισμών της Μακεδονίας: Μεταβολές στον 20ο αι.* Θεσσαλονίκη: University Studio Press.
- Cohen, P. Anthony. 1985. *The symbolic construction of the community*, London: Routledge.
- Δαλκαβούκης Βασίλης, Πασχαλούδη Ελένη, Σκουλίδας Ηλίας (επιμ.). 2012α. *Αφηγήσεις για τη δεκαετία του 1940*. Θεσσαλονίκη: Επίκεντρο.
- Δαλκαβούκης, Βασίλης. 2012β. «Μνήμη και κοινότητα. Επαναπροσδιορίζοντας τις έννοιες στην προοπτική της σύγχρονης Λαογραφίας» στο Βαρβούνης Μανόλης και Σέρνης Μανόλης (επιμ.) *Ελληνική Λαογραφία (Δεύτερος Τόμος)*. Αθήνα: Ηρόδοτος.
- Δαμιανάκος Στάθης, Ζακοπούλου Έρση, Κασίμης Χαράλαμπος, Νιτσιάκος Βασίλης. 1997. *Εξουσία Εργασία Και Μνήμη Σε Τρία Χωριά Της Ηπείρου*. Αθήνα: Πλέθρον.
- Hames, Raymond. 2007. «The Ecologically Noble Savage Debate», *Annual Review of Anthropology*, 36: 177 – 190.
- Descola, Philippe. 2013. *Beyond Nature and Culture*, Chicago: The University of Chicago Press.
- Διγενής, Κίμων. 1934. «Κοτύλη» λήμμα), *Μεγάλη Ελληνική Εγκυκλοπαίδεια*, τ. 15.
- Green, Sarah. 2005. *Notes from the Balkans*. Princeton: Princeton University Press.
- Hart, Laurie Kain. 1999. "Culture, Civilization, and Demarcation at the Northwest Borders of Greece". *American Ethnologist*, 26: 196-220.
- Iatrides, O. John. 1984. *Η Ελλάδα στη δεκαετία 1940-1950. Ένα έθνος σε κρίση*. Αθήνα: Θεμέλιο.
- Κομνηνού, Μαρία και Ευθύμιος Παπαταξιάρχης (επιμ.). 1990. *Κοινότητα, κοινωνία και ιδεολογία. Ο Κωνσταντίνος Καραβίδας και η προβληματική των κοινωνικών επιστημών*. Αθήνα: Παπαζήσης.

Κυριακίδου – Νέστορος, Άλκη. 1988. «Σημάδια του τόπου ή η λογική του ελληνικού τοπίου» στο Α. Κυριακίδου – Νέστορος *Λαογραφικά Μελετήματα Ι*. Αθήνα: Νέα Σύνορα, σσ. 14 – 40.

Μάνος, Κώστας. 1962. *Λαογραφικά Επταχωρίου – Βοΐου*. Αθήνα.

Manta, Eleftheria. 2009. «The Cams of Albania and the Greek State (1923–1945)». *Journal of Muslim Minority Affairs* 4(29): 523-535.

Mazower, Mark. 2003. *Μετά τον Πόλεμο : Η ανασυγκρότηση της οικογένειας, του έθνους και του κράτους στην Ελλάδα, 1943-1960*. Αθήνα: Αλεξάνδρεια.

Μπεόπουλος, Νίκος και Απόστολος Παπαδόπουλος. 2008. «Η ερημοποίηση ως ανθρώπινη απουσία και στείριότητα των τόπων» στο Μπεόπουλος Νίκος και Παπαδόπουλος (επιμ.) *Ερημοποίηση*. Αθήνα: Gutenberg, σσ. 15 - 46.

Νικολακόπουλος Ηλίας, Άλκης Ρήγος, Γιάννης Ψαλλίδας (επιμ.). 2002. *Ο Εμφύλιος πόλεμος (Από τη Βάρκιζα στο Γράμμο)*. Αθήνα: Θεμέλιο.

Νιτσιάκος, Βασίλης. 1995. *Οι ορεινές κοινότητες της Β. Πίνδου. Στον απόηχο της μακράς διάρκειας*. Αθήνα: Πλέθρον.

Νιτσιάκος, Βασίλης. 2008. «Παραδοσιακές πρακτικές διαχείρισης του ορεινού χώρου» στο Μπεόπουλος Νίκος και Παπαδόπουλος Απόστολος (επιμ.) *Ερημοποίηση*, Αθήνα: Gutenberg, σσ. 133-150.

Νιτσιάκος, Βασίλης. 2015. *Πεκλάρι. Κοινωνική Οικονομία μικρής κλίμακας*, Γιάννενα: Ισνάφι.

Οικονόμου, Ανδρομάχη. 2007. *Φύση, τεχνολογία και κοινωνία στις ορεινές κοινότητες του Κιθαιρώνα*, Αθήνα: Οδυσσεάς.

Gísli, Pálsson. 1996. «Human-environmental relations: orientalism, paternalism and communalism» στο Philippe Descola και Gísli Pálsson (επιμ.) *Nature and Society*. London: Routledge.

Παπακωνσταντίνου, Θ. 1934. «Καστοριά» (λήμμα) στη Μεγάλη Ελληνική Εγκυκλοπαίδεια, τ. 14.

Παπαρίζος, Γιάννης. 1998. *Τα χωριά του Γράμμου*. Θεσσαλονίκη: Κώδικας.

Πελαγίδης, Ευστάθιος. 1994. *Η αποκατάσταση των προσφύγων στη δυτική Μακεδονία 1923 – 1930*. Θεσσαλονίκη: Αφοί Κυριακίδη.

Ράπτης, Μιχάλης. 1997. *Τα Μαρτυρικά Γραμμοχώρια της Καστοριάς*. Αθήνα: Καραγκούνης.

Redfield, Robert. 1955. *The little Community*. Upsala and Stockholm: Upsala University Publication.

Ροδάκης, Περικλής και Μπάμπης Γραμμένος (επιμ.). 1987. *Έτσι άρχισε ο εμφύλιος – Ολόκληρη η έκθεση του Δημοκρατικού Στρατού στον ΟΗΕ τον Μάρτιο του 1947*. Αθήνα: Γλάρος.

Σινάνης, Άγγελος. 2010. *Ο Γράμμος και τα Μαστοροχώρια της Κόνιτσας*. Αθήνα: Ανάβαση.

Σκουτέρη – Διδασκάλου, Νόρα. 2003. «Ο τόπος μας ως πολιτισμός: τόποι πιασμένοι» στο Σκουτέρη – Διδασκάλου Νόρα *Διακρίσεις*. Θεσσαλονίκη: University Studio Press, σσ. 321 - 325.

Σκουτέρη-Διδασκάλου, Νόρα. 2008. *Από τας κύκλωθεν πολιτείας και χώρας του Άνω και Μέσου Αλιάκμονος: Ο χώρος οι οικισμοί και οι άνθρωποι στο γύρισμα του 20ου αιώνα. Ένα πρόβλημα ανθρωπολογικής προσέγγισης* (διδακτορική διατριβή), Τμήμα Ιστορίας Αρχαιολογίας, Θεσσαλονίκη: ΑΠΘ.

Stacey, Margaret. 1974. «The myth of community studies» στο C. Bell and H. Newby (επιμ.) *The Sociology of Community*. London: Frank Cass and Co, σσ. 13 – 26.

Στεφόπουλος, Ανδρέας. 1972. «Παιδικά Παραδοσιακά Παιχνίδια από τη Χρυσή Καστοριάς», *Ανάτυπο Μακεδονικών*, τόμ.12.

Στεφόπουλος, Ανδρέας. 1981. *Τροφές της Χρυσής Καστοριάς*. Πανεπιστήμιο Ιωαννίνων-δημοσιεύματα Λαογραφικού Μουσείου, αρχείο αρ. 3, Γιάννινα.

Σχινάς, Νικόλαος. 1886. *Οδοιπορικοί Σημειώσεις Μακεδονίας, Ηπείρου, Νέας Οροθετικής Γραμμής και Θεσσαλίας*. Εν Αθήναις: Messenger d' Athenes.

Τσίγκαλος, Δημήτρης. 1979. «Τα παλιοχώρια του Επταχωρίου» στο *Β' Συνέδριο Βοϊακής Εστίας - Πρακτικά*. Θεσσαλονίκη: Βοϊακή Εστία.

Τράιου, Ελευθερία. χ.χ., *Τα μονοπάτια του Γράμου*, Καστοριά: Νομαρχιακή Αυτοδιοίκηση Καστοριάς.

Τσίτας, Δημήτρης. 1992. *Φάκελος Γιαννούλη και άλλα τινά*. Αθήνα: Άνοιξη.

Websites

«Οι πρόσφυγες στην Καστοριά (μέρος 1ο): Η ανταλλαγή των πληθυσμών», *Ιστορικά Καστοριάς* (19-5-2013) <http://istorikakastorias.blogspot.com/2013/05/1.html>

«Διοικητικά και πληθυσμιακά στοιχεία των οικισμών Καστοριάς μετά την απελευθέρωση (μέρος 2ο): 1950-2015», *Ιστορικά Καστοριάς* (17-6-2015) <http://istorikakastorias.blogspot.com/2015/06/2-1950-2015.html>

Ιστότοπος Λιθοξόου Δημήτρη: «*Τα χωριά της Καστοριάς - γεωγραφία της ιστορίας*» <https://www.lithoksou.net/search/label/Μακεδονία.%20Τα%20χωριά%20της%20Καστοριάς>

Archival Material

Democratic Army of Greece. «Έκθεση Δράσης 7-7-1946 έως 6-11-1946, ΔΣΕ/ΟΔΕΚ/Αρχηγείο Γράμμου, 11 Νοε 1946».

Archive of the Army History Directorate, Hellenic General Army Staff. Αρχείο Διεύθυνσης Ιστορίας Στρατού, φ. 22/Ε/681/Δ/29, 4/Δ/1540/108-109, 4/Δ/1540/79, 5/1292/57, 22/Ε/668/13, 1/Α/1037/1, 5/1277/36.