

NATIONAL INVENTORY OF THE INTANGIBLE CULTURAL HERITAGE OF GREECE

Transhumant Livestock Farming

- 1. Brief Presentation of the Element of Intangible Cultural Heritage (ICH)
- **a.** Under what name is the element identified by its bearers: Transhumant Livestock Farming

b. Other name(s): Migrating animal husbandry, nomadic livestock breeding. In the past, terms such as "tent dwellers" ("skinites" in Greek) and "house-bearing Vlach shepherds" ("fereoikoi vlachopoimenes") were used to denote migrating livestock farmers.

Though widely used, the terms "nomadism" and "nomadic animal husbandry" do not correspond to the pattern of livestock movements now observed in Greek areas, since such movements occur between specific locations, in summer and in winter. Besides, nomads did not roam but chose the winter and summer settlements taking a number of complex factors under consideration.

The term "transitional animal husbandry" is more precise, as it corresponds to the international term of transhumance, which indicates the seasonal movement of flocks and shepherd(s) from the mountain to the plain and vice versa. Unlike what takes place in Greece, where in their majority livestock-farming families continue to move along with the flocks, in many areas of Europe the entire family does not follow the movement of flocks, but permanently remains in a village, whether montane or lowland.

Direct transhumance is defined as transitional animal husbandry, when the plain is the place of residence of the family, whereas in the opposite case, namely when the permanent place of residence of the family is on the mountain, it is called inverse transhumance. It is worth noting that transhumant livestock farmers of Greek areas regard as their home the mountains and not the plains where they winter (Psihoyos – Papapetrou 1983,

28, Salzman [a] 2010, Salzman [b] 2010). Today the most common term to describe the specific type of livestock breeding is "transhumant livestock farming". In the Greek case, the term refers almost exclusively to migrating sheep and goat breeding.

c. Brief Description:

The term "transhumant livestock farming" indicates the annual movement of flocks of sheep and goats between summer and winter quarters, irrespective of the distance travelled or the means by which the latter is traversed. The practice of moving is at the heart of the cultural and social constitution of montane livestock-breeding communities and has largely contributed to the formation of the landscape of the areas where it developed historically. Transhumant livestock farmers are bearers of knowledge and practices associated, on the one hand, with the optimal utilization of the natural resources available (meadows, water sources etc.) and of climate data and, on the other hand, with the output of quality agrifood products.

d. ICH Domain:

√ oral traditions and expressions
 □ performative arts
 √ social practices – rituals – festive celebrations
 √ knowledge and practices concerning nature and the universe
 □ know-how linked to traditional handicraft
 √ knowledge about the output of traditional high-quality agri-food products

e. Area in which the element can be found

Migrating cattle and sheep flocks can be found everywhere in continental Greece. Moreover, they appear in large and medium-sized islands, mainly Crete and Eubœa, but also Chios, Naxos, Thassos, etc. According to research data (see Annex 1), it appears that the focus of migrating livestock breeding in Greece today is still Thessaly Region, where 805 (26.4%) exploitations can be found, breeding approximately 338 thousand animals (33%). With slightly lower numbers of exploitations, Central Greece Region comes next (787 thousand animals, 25.8%) with a much smaller number of livestock bred (214 thousand animals, 20.9%). Third in importance with respect to the structural features of the movement comes the Peloponnese (with 19.7% of exploitations and 16.8% of animals), followed by other regions with smaller percentages.

f. Keywords:

Nomadism, nomads, transitional husbandry, sheep and goat breeding, traditional cheesemaking, Greek cheese, pastures, mountain farming communities, flock, lowland pastures for the wintering of flocks ("heimadio", in Greek), sheep and goat breeding families ("tselingáto"), sheep and goat owning community chief ("tsélingás"), smaller flock owner ("smihtis").

2. Identity of the bearer of the ICH element

a. Who is/are the bearer/-s of the element?

The bearers of the heritage of animal husbandry are transhumant livestock farmers themselves and their families, as well as the livestock-breeding communities, found mainly in the mountainous area. The Sarakatsani and the Vlachs have been identified more with transhumant animal husbandry, as a practice that decisively shaped their cultural and social constitution.

Today special care is taken by the **Network of Transhumant Livestock Breeders** to preserve and highlight the importance of migrating animal husbandry as an intangible cultural asset. This network is an association/non-profit organization founded in early 2015 and addresses all transhumant livestock farmers in the country. Apart from these latter, its membership includes animal husbandry-related scientists (animal scientists, veterinarians, agro-economists, agro-sociologists, environmentalists, rangeland scientists etc.), cultural associations and other agencies.

b. Basis / location

Address: 3rd km of the Larissa-Thessaloniki Old National Highway, ELGO

Dimitra Building, 41 336 Greece

Telephone no.: (0030)-2310 013892 – (0030)-6937414305 – (0030)-6945705708

Telefax no.: (0030)-2410-553551

e-mail address: info@metakinoumena.gr url/website: www.metakinoumena.gr

c. Further information about the element - person(s) in charge :

Name: Ms Vassiliki Laga

Capacity: Professor at the "Alexander" Technological Educational Foundation

of Thessaloniki

address: Sindos, 57400 Greece telephone no.: (0030)-2310 013892 e-mail address: lagka@ap.teithe.gr

Name: Mr Athanasios Rangos

Capacity: Agriculturist / Agro-economist, M.Sc., Ph.D.

address: Sindos, 57400 Greece

telephone no.: (0030)-6937414305

e-mail address: ragkosagrecon@gmail.com

3. Detailed description of the ICH element, as found today

As in the entire Mediterranean world, transhumant animal husbandry in Greece is deeply rooted in time, having formed a set of cultural features, whose bearers are migrating livestock breeders and their communities. The good management of natural resources, practical knowledge about the environment (weather conditions, flora, etc.) and animals, the production of high-quality local food products and the diverse and complex skills required to manage the flocks are just some of the features that make transhumant livestock breeding a centuries-old cultural experience worth preserving and enhancing. The identity and the memory of mountain livestock-farming communities which are historically identified with transhumant livestock breeding are articulated around the practice and the ethos of moving from the mountain to the plain and vice versa. In almost all cases of transhumant livestock breeders in Greece, the origin of breeders is the mountain community and not the lowland where they overwinter. As they are used to saying, "we return with great joy, not like in the autumn with our heads down".

Besides, it is not accidental that, even today, at a time when the structures of the traditional livestock-farming societies of the mountainous areas have weakened or collapsed, many of the collective practices of symbolic celebration of the community are still carried out. The most telling of these practices is the celebrations of upland livestock-farming communities, held in the summer, when sheepfolds return to the mountains. Especially fairs, most of all the one organized around the church of each village, which is usually dedicated to the Prophet Elijah (20 July), Saint Paraskevi (26 July) and, mainly, to Virgin Mary (15 August), still are the most vivid expression of the collective memory and identity of livestock-farming communities, directly connected with the experience of moving from and returning to the mountains (see Annex 2).

A key element of transhumant livestock breeding is the route, referred to as "the paved way" ("strata" in Greek) or "the passage" ("diava"). Until the 1970s, the movement of flocks took place by means of walking, in spring (usually early May) as well as in autumn (late October – early November), with the major religious feasts of St. George in the spring and St. Demetrios in the autumn as milestones. Today, in many cases, trucks are also used for movements.

Movements of flocks vary, depending on soil and climate conditions and local customs. In the northern and central regions, moving to the mountains (e.g.

Rodopi, Pella, Western Macedonia, mount Lakmos, Tzoumerka, Agrafa, Parnassos, etc.) starts in May. Flocks remain in the mountains for four to five months and return to winter quarters in late October, depending on weather conditions. In relatively southerner regions (Vardoussia in the Prefecture of Phokis, mountainous Nafpaktia, Pheneos near Corinth) the stay may be longer (e.g. late April to mid-November), whereas in Laconia (Parnon) and Crete weather conditions are not so harsh in the mountains and therefore the stay there can last up to 8-9 months (e.g. Rihia in Laconia, Anogheia, the plateau of Katharo in the Prefecture of Lasithi). Vehicles have replaced the movement of flocks by walking in cases of movements of over 100 km as well as for slightly shorter distances. According to a survey, out of a representative sample of 551 transhumant livestock exploitations, 27% made the journey by walking, 65% used trucks and 8% used both means (Laga *et al.*, 2015).

The change of the standard of living and integration in the market economy are two more reasons that caused livestock breeders to use trucks. The criteria for the introduction of this type of transport are, one the one hand, the needs to save time and reduce costs. In the first case, through the renting of trucks, transport time to and from summer pastures is reduced from 15-25 days to only a couple of hours. However, depending on the distance, renting a truck may add substantially to the expenses of exploitation and, given the limited liquidity and the high costs of production, ca. 100 transhumant livestock breeders across the country choose the old routes (for road distances of over 100 km), especially when returning to winter quarters, where the downhill route and the fact that animals have not been milked make moving easier. Shorter movements still take place on foot through mountain trails, as for example, in Laconia, in the Prefecture of Karditsa (from Mouzaki towards mountainous Argithea), in the area of Iasmos and Kimmerioi in Thrace, short movements in the islands, including Crete and Eubœa etc.

Regarding the distance traveled from the mountain to the lowland pasture, movements of flocks can be divided into three groups:

- a. Short movements up to 50 km are made throughout the Greek territory. Movements to the neighboring regions of Eastern Macedonia and Thrace (mainly between Xanthi and Rodopi), in Pella, Imathia and Pieria, in the geographical region of Central Greece are telling but under no circumstances the only ones (e.g. some movements from Aetoloakarnania to Evritania and Phokis, as well as within Eubœa, Phthiotis and Bœotia), and in the Peloponnese, particularly in the area of Arcadia, with flocks moving to Laconia and Messinia, and others within Achaia;
- b. Medium-range movements (51-100 km), taking place between Thesprotia and Ioannina, from Aetoloakarnania to Evritania, Arta

- and Ioannina, from lowland/coastal areas of Crete to the highlands, mainly Psiloritis and Lasithi. Flock movements to summer pastures of Pheneos near Corinth from the area of Troizenia and Eleia are of the same scale, as well as many of the movements within Thessaly;
- c. Long-distance movements (101-200 km). The case of flocks moving between the mountainous areas of Western or Central Macedonia and Thessaly and the lowland of Thessaly or Central Macedonia covering distances of the order of 150-200 kilometers, on average. Specifically, during the summer months, flocks are found in the mountain range of Pindos, and the mountainous areas of Kastoria and Florina, along the mountains of Neretzka-Vitsi-Mouriki-Siniatsiko, Vermion, on Mounts Voras (Kaimaktsalan), Paiko etc. During the winter months, they move mainly in Thessaly, also in the plains of Larissa and Trikala, and less in Central Macedonia, or in areas of Thessaloniki. Other movements of such scale are those from Aetoloakarnania and Preveza to the mountainous area of Ioannina. movements of flocks from Attica to the summer pastures of Pheneos in the area of Corinth, movements from Phthiotis and Farsala to the area of Aspropotamos in the area of Trikala, as well as some movements in Crete towards Anogia;
- d. Very large movements, over 200 km, taking place mainly from Attica to Phokis, from Bœotia to the mountainous Argithea of Karditsa, from the lowlands of Thessaly and Thesprotia to the mountains of Western Macedonia (Kastoria, Kozani) and Ioannina, as well as from Sithonia of Halkidiki to Western Macedonia (see Annex 4).

Lives of transhumant livestock breeders are interwoven with the needs of their flocks. The productive period is considered to begin with births. Sheep usually begin to give birth in late October. Unlike what happens in Northern and Central Greece, in southern Greece, when they give birth, the flock is often found in mountain pastures. If the animals give birth in late October, the milking starts around Christmas, unless the producer chooses to have the animals give birth earlier. Milking, a very demanding task, continues during the stay of the flock in the winter quarters (morning and afternoon). At least two members of the family, or workers take part in the milking. Towards the end of February, when the "opsima", i.e. young ewe lambs, give birth for the first time, still another period of intensive work is observed.

From March-April, when the weather improves, animals start grazing on pastures under the supervision of the shepherd to the extent that the length and temperatures of the day allow them to. Sheep shearing, which takes place before the spring departure for the mountains, is an opportunity for gatherings and feasting. In the past, the shearing took place even on the way and the wool was channelled to local wool merchants.

While on the mountain, animals remain completely free, unless predators threaten them. The period from August to early October is the most relaxing for transhumant livestock breeders, as there is no milking nor any need to feed the animals (except in cases where, due to intense stocking density, the availability of natural vegetation has begun to decline), until they take the route to winter pasturelands.

The transhumant livestock breeder has traditionally developed a practical system for the management of pastures and of land more broadly, based on the empirical observation of vegetation and weather conditions. As time went by and through constant interaction with nature, livestock farmers have empirically developed management ability of the pastures and of the land in general, assessing the grazing capacity of the areas they use, as well as the weather conditions. Each farmer grazes his flock in a specific location each year, on the basis of these criteria, in order to manage vegetation in a sustainable manner (rotational grazing), to allow the regeneration of pasture and the protection of the flock from adverse weather conditions.

Indeed, transhumant livestock breeders are bearers of knowledge about survival in adverse weather conditions and the sustainable utilization of the whole of products and by-products of their livestock-farming activity. Moreover, they have developed significant practical veterinary knowledge, recognizing the symptoms of diseases and applying practical treatments. Furthermore, the choice of pastures is associated with the composition of the vegetation, a fact which has led to the development of specific knowledge about the properties of herbs and wild forms of vegetation.

Working in a transhumant exploitation presents multiple challenges: manual work for milking, supervision of the flock on the mountain for the risk of an attack by wild animals, dealing with extreme weather phenomena, treatment of diseases, grooming the small animals, repairing machinery etc., in combination with work for the effective management of capital, making decisions on the production and the sale of products, the day-to-day running of the exploitation, etc. As a result, today the transhumant livestock breeder is required to combine the unique wealth of knowledge he inherits from his predecessors (empirical transmission and non-formal education) with a widest range of skills from livestock science to finance.

The family works on the exploitation either exclusively or occasionally, as was traditionally the case with migrating exploitations (see written witnesses in

Loukopoulos 1930, Syraki 1924, Campbell 1964 and Kayser 1989). The husband is the chief and the manager, assisted, as each case requires, by his wife, grandparents and adult children. A form of distribution of labour is the multiple employment of family members in the development of parallel activities, where such activities are available: cultivation (e.g. olive and citrus growing in Crete and Southern Peloponnese), Tourist / agro-tourist activities and food and beverage (islands, mountains of Arcadia and Grevena etc.), domestic craft and processing.

Until the 1990s the employment of foreign workers was by no means habitual. Family members constituted the 'pool' from which to meet labour requirements. After 1990 this situation changed with the massive influx of immigrants, first from Albania and subsequently from other countries. Gradually, foreign workers replaced family members. Today, under the effect of the financial crisis, paid employment of foreigners diminishes, as demonstrated by the preliminary results of a survey throughout Greece (Rangos *et al.* 2014). In this context, it is worth noting that women return to transhumant livestock farming, claiming a more dynamic part in it.

4. <u>Location / facilities and equipment associated with the performance / exercise of the ICH element</u>

Up to the late 1960s – early 1970s stabling facilities were particularly unsophisticated. Usual construction materials included tree or shrub branches for the corral. Thus, in mainland Greece, pens were made of "postes", i.e. large frames out of stems of rye or bulrush (Scirpus) which were fastened together with rods of "paliuri" (type of a thorny shrub, Paliurus spina-christi). The hut of the farmer as well as storage spaces were constructed from the same materials. The "postes" were placed one leaning upon the other at an angle in relation to the ground (for pens). For the huts a different practice was followed, because these usually had a circular shape. Sometimes, especially for corrals, women would weave a special fabric out of goat wool, later to be replaced by burlap, which they would purchase, whereas today they use a plastic burlap-like material. In the islands, the main material was —and in most cases still is stone (dry-stone walls), such as the "mitata" (vaulted dry-stone buildings) in Crete, both for the pen, the residential space of livestock farmers and for storage spaces. However, it should be noted that the respective stabling facilities for the protection of animals during the summer period were much more rudimentary or even non-existent throughout the country.

During the journey ("strata"), apart from the pen ("strunga"), in each dwelling ("konaki") a tent was set up for the protection of the family, both at night and in the day, from extreme weather phenomena, which are more frequent during

spring, but also in the autumn. Later, metal sheets started being used for the construction of the stables, as well as cement blocks or bricks, a practice followed to this day.

Two types of installation are of interest. The first includes caves, in which cheese is made or kept, in areas such as the mountainous Argithea of Karditsa (Petrochori) and the "mitata" of Psiloritis in Crete, as the microclimate in caves is ideal for cheese-making / cheese maturation etc. The second type concerns fences and temporary constructions in summer living areas (stockyards and sheds), which are makeshift, of minimal cost and easy to assemble and dismantle.

Bells for sheep and bells for goats ("kypria"): bells and "kypria" are used today in the same way as of old. Livestock breeders place them around the neck of the "ghesemia" (male animals that lead the flock, often castrated) before they set out for the summer pastures. Depending on his preferences, each farmer would place two or three dozen bells (for sheep) or "kypria" (for goats). Each dozen would include 3 or 5 or 7 bells / "kypria" each with its own special sound. In summer, most bells would be removed because they would burden the animals. Today the manufacturing of handmade bells is a form of art practised in workshops in Amfissa, Paravola of Agrinio, Paramythia and elsewhere. Up to this day bells are indicative of a healthy and well-kept flock, while their style is of particular interest to livestock farmers. Acquiring a good bell is important, handmade bells are even given as prizes in competitions.

Utensils used for milking and cheese-making can now be purchased in the market (plastic ones) or manufactured by local craftsmen and are often made of tin. From the formerly mainly wooden utensils used in milking, the churn is the one used more rarely: it is a utensil where milk is collected during milking, except in cases where milking is carried out mechanically. Cheese-making utensils are still in use by farmers who make cheese in their exploitations.

For cheese-making utensils such as the following are used:

- "tsantiles": cloths on which the cheese is placed to be drained;
- "stefania": moulds in which the cheese is placed to take its shape;
- "steziahi": wooden frame within which the whey is drained.

From the items of clothing formerly produced by the livestock farming family today only few remain. Of these, it is worth mentioning the "mallioto", in particular, an overcoat made of sheep wool and offering protection from the weather, and the cape, a waterproof cloak, made of goat hair. These are ideal for extreme outdoor living conditions and many livestock breeders prefer them.

Shepherd's crook: Wooden stick used by shepherds as a walking aid, or to manage the flock; in many cases it bears woodcarved decorative motifs.

5. <u>Products or other physical objects more broadly deriving as a result of the performance/exercise of the ICH element</u>

Transhumant livestock farming in Greece is carried out in order to produce numerous products, in contrast to certain other European Mediterranean countries, in which the main aim is meat production.

The main product throughout the territory is milk, which is made available by livestock breeders without treatment and is primarily distributed through organized commercial channels. In some cases, livestock breeders process it themselves or, more rarely, sell it fresh directly to consumers. In the first case, livestock farmers sell milk in small local cheese-making facilities or through large industries, where it is used mainly in the production of feta cheese or other products, depending on local traditions. Trucks from milk industries visit farms daily, or every two days, in order to collect the milk from the special coolers (ice tanks) and carry it to the cheese-making facilities. Visits to summer pastures are usually slightly rarer (every two or even three days). If the livestock farmer is in an inaccessible area or does not reside in a settlement, he transports the milk to a predetermined point, where the truck collects it in order to make things easier for the cheese-maker. Horses are used to transport the milk from inaccessible areas to the collection point (e.g. in Xanthi or Crete).

The cheeses produced vary depending on the region and the dietary habits: different variations of "feta" throughout Greece, "graviera" in Crete, "tsalafouti" in Arghithea at Karditsa and in Agrafa, "batzos" in Grevena, goat cheese in Laconia and Messinia and many other kinds. The cheese-making products of transhumant livestock farming were always considered of high quality. Their quality is attributed to the traditional cheese-making know-how and the specialized knowledge of livestock breeders about vegetation and the features of the flora of pastures.

On-the-ground cheese-making within the boundaries of the exploitation is quite common, especially during the summer months, for various reasons: either because summer milk is considered thicker, and therefore more suitable for cheese production, or because there are no cheese-making facilities interested in shouldering the transport costs from remote locations (e.g. Trovato of Evrytania), or milk preservation in cooling tanks is not possible because there is no electricity supply in the summer pasture.

The process of cheese-making, as well as the storage of cheese-making products in summer pastures, is of particular interest, as traditional techniques and methods are often used. These products are often of exceptional quality and organoleptic properties. The cheese is consumed within the household, or given instead of a fee for the renting of land or machinery, or donated. Cases of systematic sales to consumers are not rare. When the farmer sees demand and seeks to benefit from the value added of his milk, cheese production is also carried out during the winter months. Recently, legislation was simplified and became more flexible regarding the production of cheese in small domestic facilities (*artisanal* cheese-making) within in livestock-farming exploitations (Law no. 4056/2012).

Meat is the second most important product of transhumant livestock farming. This is mainly meat of milk lamb and, less commonly, meat of adult animals withdrawn from production, when keeping them is no longer financially feasible, while young animals are always kept as family food or for social events (celebrations, weddings, fairs, etc.). A special case is that of Pomaks in Thrace, who slaughter the young animals in June in special slaughterhouses in a ritual manner, as dictated by Islam.

Wool was formerly utilised by the household, and so were all the by-products from the animal (e.g. fat). Only in few cases now a small part of the wool is processed for the knitting of clothes, which are considered ideal by livestock breeders, because they protect against the cold and the humidity of the mountain. Today wool is not in demand, as there are no longer wool-processing manufactures. Nevertheless, efforts are made by breeders' associations to reconstruct the specific productive activity.

6. Historical background regarding the ICH element

Transhumant livestock breeding in the area of the Balkans and the Mediterranean —and of course elsewhere too— has very deep historical roots. Known from the Byzantine period (5th century), because of the gradual cooling of the climate which favoured the development of livestock farming, it developed especially during the era of the Ottoman Empire. The reasons for its flourishment during that period are varied: geographical, political, economic, social. The relief of the wider region, with mountains located not at a prohibitive distance from plains and the coastline, favoured the development of transhumant livestock farming. Moreover, diseases and malaria, in particular, which was typical of the lowlands, constituted an important factor why the inhabitants sought a living in the mountains, at least for some time during the year. The vast geographic framework of the Ottoman Empire facilitated the journeys of moving persons, which in certain cases were long, as

they were not limited by national borders. Furthermore, the continuous movement gave a sense of freedom and independence to the oppressed populations of the Balkans. In combination with the fact that transhumant livestock breeders had their daily food ensured, they enjoyed an enhanced social prestige.

It is not clear whether these movements continued incessantly down to the 18th and 19th centuries, a period during which livestock farming experienced significant growth and decisively contributed to the fact that the mountainous societies of the Greek area thrived. However, in specific historical circumstances a restriction to seasonal movements to the mountains as well as prolonged stay in the winter pastures would be observed.

The evolution of the transhumant livestock breeding does not have a linear historical continuity, as it went through periods of great flourishment but also periods of recession, depending on the political and socio-economic conditions. The factors which raised obstacles to transhumant livestock farming are, at a first stage (19th and early 20th centuries), of a political and, subsequently (20th century), of a financial and social nature.

The political reasons of the first of these periods were the annexation, first, of Thessaly (1881) and subsequently (1912) of Macedonia to the Greek state. In the first case, the number of transhumant livestock farmers moving from winter pastures to the mountainous settlements of Macedonia was reduced. This was because tariffs were imposed at the border and controls there were more intensive, as the mountainous settlements of the Macedonian area still belonged to the Ottoman Empire, whereas the winter pastures of the Thessalian plains passed to the Greek state. Restrictions were further intensified in 1912, because transhumant livestock farmers were forced to cross more numerous national borders. As a result, they adapted their routes to the new geopolitical constraints. The biggest blow on transumant livestock farming was the agrarian reform of the 1920s, which deprived moving persons of their winter pastures.

As mentioned above, transhumant livestock farming was particularly prosperous during the era of the Ottoman Empire. Livestock breeders were organized into *tselingáta*. The dangers of movement (wild animals, thieves, etc.) prompted the owners of small flocks to unite, to 'merge' into *sui generis* informal cooperatives as "smihtes". The chief of the *tselingáto* was the owner of the largest flock, called "*tsélingas*", who at the same time was a person with acquaintances in the state apparatus, the owners of the large farms ("*çiftlik*") in the lowlands and politically powerful local actors. The *tselingáto* operated on the basis of rigorous hierarchical relationships within it, but also within the

families which constituted it. These relationships were mainly reflected on the despotic presence of "tsélingas". In return, tsélingas provided smihtes with financial security and strong political protection. The organization of the tselingáto of Sarakatsani has been studied by the British social anthropologist J. Campbell. His work, Honour, Family and Patronage: A Study of Institutions and Moral Values in a Greek Mountain Community, published in 1964, is now a classic study, very influential in social sciences and covering broader issues, such as clientelism in Mediterranean societies.

During this period, the *tselingáto* worked closely and operated in complementarity with the *çiftlik*: on the one hand, the *tselingáto* needed lowlands as winter pasture lands, on the other hand each year the *çiftlik* would leave some of its areas (the "damkas") fallow, in any case, as a practice aimed at improving the fertility of the soil. These areas were rented by the *tselingáta*. The landowner had every interest in ceding these lands for rent, since, at the end of each period, he would enjoy both the pecuniary gain from renting them and the natural fertilization of the lands.

This complementarity was broken in the 1920s with the arrival of refugees from Asia Minor, as the Treaty of Lausanne (1923) between Greece and Turkey provided for a compulsory exchange of populations between the two countries. The arrival of thousands of refugees and their settlement mainly in the rural areas of northern Greece obliged the Greek government at that time to expropriate *çiftliks* and to distribute the lands to refugees and local landless persons. This agrarian reform deprived migrating livestock farming of vital areas, a fact which has caused major problems and conflicts with farmers from lowland regions.

In order to have relative independence, some "tselingádes" bought lowlands from the Turkish landowners, who would sell their properties because of the annexation of Thessaly to the Greek state. These were used as winter pasture lands and, because they were not cultivated, were not included in the areas expropriated by the agrarian reform in the 1920s. In this manner, the specific owners came to own significant extents of land after WWII, which they began to cultivate then, by utilizing the mechanization of agriculture. This fact enabled their particular economic and social rise, but also entailed a reduction of the livestock farming activity.

During the agrarian reform, foreseeing the danger of a lack in winter pasture lands, certain transhumant livestock farmers settled down and became beneficiaries of agricultural lots. This constituted the beginning of the gradual dissolution of *tselingáto*. According to data cited by Syrakis (1925), during that period 13,700 families moved together with their flocks, of which 5,956 were

Sarakatsani families, 786 Arvanitovlach families, 3,409 Koutsovlach families, and 3,549 families of villagers who did not fall under any of the previous categories.

However, the most systematic policy for permanent settlement, which essentially meant the end of the *tselingáto*, entered into force by means of Emergency law no. 1223/1938 (*Government Gazette* part A', issue no. 184/04.05.1938, pp. 1123-1129). According to this law, which mainly concerned the Sarakatsani, transhumant breeders who, until then, were not registered, were obliged to register in the municipal registers of the communities in which they would spend the winter, with specific restrictions for each community. Through this law the State had a dual goal: on the one hand, to record them and impose the obligations of Greek citizens (e.g. taxation, military conscription, etc.) upon them, and on the other hand to ensure access to community pasture lands for them. Therefore, the period from the agrarian reform to the end of the wars was a period of radical change that led transhumant livestock farming to recession and significant transformations. During that period the *tselingáto* was definitively dissolved and livestock breeding was practised in individual family exploitations.

With the outbreak of World War II, movements to mountain pasture lands were considerably limited. The conditions of hunger and misery which prevailed for several years forced a significant proportion of transhumant livestock breeders to remain in the lowlands and engage in agriculture at the same time, constantly struggling for survival. In the second half of the 20th century, economic and social reasons led transhumant livestock farming to even greater recession. The modernisation and mechanisation of agriculture deprived it of even more pasture lands, as it turned them into cultivated areas. At the same time, the lack in the modernisation of transhumant livestock farming, the low prices of livestock products, labour better paid in other sectors of the economy, as well as the social depreciation of the farmer's profession, with the simultaneous change of the living standard, led either breeders themselves or their children to leave the life of transhumant livestock breeder and migrate to the urban centres of the country or even abroad. This development caused transhumant livestock farming to shrink in the decades that followed, mainly as regards the number of migrating flocks and not the whole of the animals bred.

7. The importance of the element today

a. What is the importance of the element to the members of the community / its bearers?

The resilience of the transhumant livestock farming over time, despite the adverse and sometimes hostile conditions it was called to adjust to, is remarkable and largely due to its adaptability. The family nature and the deeprooted relationship of movement with family and community traditions, the bond with the locality and the land, the functionality of transhumant livestock farming in the context of a modern agricultural and livestock-farming economy are only some of the reasons which contributed to the preservation of transhumant livestock farming to this day.

Often, transhumant livestock breeders are not properly remunerated for their milk, the quality of which in several cases surpasses that of the milk of nontranshumant breeding in terms of certain qualitative characteristics, particularly organoleptic ones. On the other hand, the individualisation of family livestock-breeding exploitations deprived the production system of the principles of mutual assistance and reciprocity, which used to constitute the basis of forms of partnership bequeathed among members of the tselingáto and mainly among broader family groups typical of the former organisation system of transhumant livestock breeders. At the same time, the functionality of the extensive social networks (godparenthood and/or marriage sponsorship, clientelist relationships, etc.) which determined the previous system vanished. The new forms of collective organisation shaped after the war in the form of agricultural cooperatives were not always able to work in a manner satisfying the needs of producers. These figures are indicative of the limited social assets generally associated with employment and living in the Greek countryside over the last decades.

Today however, producers are driven to joint action for many reasons (the economic impact of the crisis now apparent, their limited participation in the decision making process concerning their sector, the realisation of the effects of globalisation on the marketing of their products). Thus, small groups of producers, associations or networks are set up locally in order to resolve the aforementioned problems. In this context they are active in the certification of their products (Designation of Origin or Protected Geographical Indication products) through groups (cooperatives, networks, etc.), as research has shown that "it is not the certification which generated the value added, but the organization and collective management of the brand and the proper promotion of benefits and profits" (Vallerand, 2014, p. 39).

The most important problems of transhumant livestock farming are related to the use of pasture lands, a fact connected with the organization of transhumant livestock breeders into family units in the second half of the 20th century. This

resulted in competition, although the number of animals is considerably smaller.

One more relevant issue is access to pasture lands. The development of the national and provincial road network, the agricultural development in the lowlands, with the introduction of intensive cultivations (vegetables, cotton, etc.) and the expansion of forest lands, due to the non-use of pasture lands by moving flocks in some areas over the past decades, are just a few factors which resulted in the inaccessibility to certain pasture lands (e.g. mountains of Fokida, Thesprotia), but also in the impossibility of flocks to move on foot.

Moreover, the vague ownership status of pasture lands, particularly of mountainous ones, compounded by the lack of land and forest registers, does not allow the clear demarcation of grazing zones and prevent the establishment of an integrated mountainous pasture land management system. Furthermore, competition from alternative land uses (intensive agriculture and livestock farming in lowland areas, e.g. Eleia, Central Macedonia, tourism on islands and coastal areas, installation of renewable energy sources, etc.) limits the operating capabilities of the system.

For a significant number of transhumant livestock breeders, particularly those originating from mountainous villages, the transhumance of flocks in the summer period to the pastures of their villages of origin is, apart from everything else, an emotional need. Although nowadays all farmers have created property in their areas of wintering and state that they have "two homelands", they are emotionally attached to their mountainous village of origin. As they spend the winter in different areas, in the summer they have an opportunity to meet with their compatriots, to enjoy the fairs in their own special way, to appreciate their own music, their own dances, their own songs (see Annex 3). They find it difficult, as they themselves, and indeed young breeders, say, to spend the entire summer in the plain with the high temperatures and be deprived, along with their flock, of the coolness and the fresh air of their villages. Tellingly, they say: "Once the month of May is in, there is nothing keeping us in the plain, the animals have their heads facing the mountains". Therefore, it is easy to understand that it is not only the most economical management of their flock that dictates the move, but also their inner need to express and experience emotions during holidays, weddings, christenings, when gathering in the square of the village, their own village, the village of their fathers and grandfathers, where "they all breathe alike".

b. What is the significance of the element to the modern Greek society?

Older sources regarding transhumant livestock farming indicate a constant reduction of moving flocks. Over the last 25-30 years the population of moving sheep and goats in Greece remains stable, although the number of exploitations has declined, a trend connected with the creation of larger and more sustainable flocks. However, this reduction has been interpreted as deterioration of the system, resulting in what is perceived as the death of transhumant livestock farming. In the context of a generalised policy of support of intensive production systems, further reinforced by European Union policies (Common Agricultural Policy), transhumant livestock farming was not reinforced, was ignored or even qualified as "obsolete" and "anachronistic". Nevertheless, transhumant livestock breeding in Greece is far from dead today. Instead, it incorporates a set of traditional elements appropriately adapted to today's reality, while at the same time adopting a series of practices that can be qualified as innovative.

Apart from its financial part, transhumant livestock farming also has aspects which render it multifunctional. Its qualification as multifunctional means that, apart from its part as producer of food products, it delivers 'indirect' services useful to society, which contribute to the sustainability of the agricultural sector (e.g. retention of the rural population) and to its rise to the status of a significant environmental and æsthetic good (e.g. preservation of historical landscape forms which were shaped over time by the interaction between man and nature).

Thus, apart from marketable goods, mainly foods (e.g. milk, cheese-making products, meat, but also wool, etc.), transhumant livestock farming delivers a range of services to the environment and the community, whereas producers are not directly paid for them. They only receive income support from the European Union, regarding which it is worth pointing out that they constitute a remuneration for services that producers not only delivered for years for free but continue delivering.

For example, transhumant livestock farming significantly contributes to the development of mountainous and disadvantaged rural areas. It provides employment and income, while in some cases it is the only financial activity and substantially contributes to the retention of the population and to the preservation of its sustainability. There are typical examples of mountainous communities of Greece that in winter are almost deserted, to liven up the summer, thanks to the flocks that move thereto. Indicatively, one may mention Aetomilitsa at Ioannina, Haliki at Aspropotamos, Theodoriana at Arta, the mountainous mass of Argithea Karditsa, the municipality of Agrafa of Evritania (Trovato, Agrafa, Vraghiana, Epiniana), the area of Gouras-Feneos in Corinthia.

However, it should be noted that even in mountainous communities where other sectors of the economy have been developed in recent years, such as the delivery of tourist services (e.g. in the mountainous mass of Grevena, in areas of mountainous Arcadia, but also in mountainous areas of tourist islands such as Crete, Chios, Thassos, Naxos etc.) transhumant livestock farming remains an important source of income. Ideed, this form of endogenous development builds on the inherent advantages and the existing cultural elements of the regions, which have been shaped as a result of the prevalence of the transhumant livestock breeding system for centuries. Within this framework, the systematic production and sale of dairy products from moving farming units is included.

Moreover, mobile flocks make use of mountainous pasture lands, contributing to the preservation of biodiversity, the natural renewal of vegetation, climate management, prevention of desertification on islands and the mitigation of the impact of the phenomenon of global warming. The preservation of indigenous breeds of sheep and goats (the Kalaritiki breed in Epirus, the Anogheia breed in Crete, the Karystos breed in Evia and the Vlach breed in Western Macedonia) is a particular aspect of the environmental dimension of the migrating livestock farming. These are breeds with great resilience, excellently adapted to local microclimatic conditions and to grazing in mountainous areas. Furthermore, they are associated with the production of milk with excellent qualitative features (high cheese-making capacity and particular organoleptic elements) and with the production of cheese-making/dairy products typical of the local dietary traditions of various regions of Greece.

c. Did the community participate in the preparation of the registration of the item in the National Index of Intangible Cultural Heritage and how?

Both the establishment of the "Transhumant Livestock Farmers' Network" and the decision to inventory transhumant livestock breeding are collective decisions which have come as a result of participatory procedures. The idea began with the launch of the implementation of the *Thales* research project at the Alexandreion Technological Educational Foundation of Thessaloniki under the title "The potential of the system of transhumant sheep and goat breeding in Greece; effects on biodiversity". In the framework of the project, visits were carried out throughout Greece, extensive contacts with those involved in the system (collectives of livestock farmers, public services, local government, processors, scientists, etc.) as well as primary research with a questionnaire distributed to a sample of ca. 20% of the total population of transhumant goat and sheep breeders, without counting informal meetings with livestock farmers across the country. Apart from these, from 2015 to this day, three one-day workshops for the diffusion of information were held (Larissa, April 2015; Crete, October 2015; Thessaloniki, September 2016). Meetings of focus groups have also been held with the participation of industry specialists and stakeholders in order to discuss problems and issues of concern to those involved in the system (Samarina, 2014; Nemea, 2015; Agrinio in collaboration with local associations of Agrafa, 2015).

8. Safeguarding the element

a. How is the element transmitted to younger generations today?

In the past, the transmission of knowledge related to the various aspects of livestock farming and transhumance was carried out exclusively in an empirical manner within the family. Tellingly, the flock would be usually bequeathed to the eldest son, but aid was also provided to younger children wishing to acquire their own flock. In a survey conducted within the framework of the *Thales* project, within a sample of 551 transhumant exploitations throughout Greece, it was found that almost all of them had a long family tradition. In some cases, the latter was temporarily interrupted for various reasons (e.g. lack of work), to resume again recently.

In the last decades down to this day, the procedure of succession in transhumant breeding farms is a function of financial and non-financial factors: the possibility of young persons to choose another way of life, more numerous opportunities for employment in other sectors, the conditions prevailing in the exploitation, the economic sustainability of livestock farming under the current

system, etc. At any rate, the prevailing perception that young persons today are not interested in continuing the profession is not accurate, as employment in a family exploitation is an alternative to the total lack of employment opportunities more broadly, due to the suffocating economic crisis. In addition, young people who decide to continue the profession of transhumant livestock breeder are conscious and strive to be appropriately trained: They attend agronomic studies or training programmes, are trained in processing and take advantage of the experience they receive from their elders. They are often innovators and try to combine tradition and experience with innovations and an active development strategy. Many young livestock breeders (under 40 years of age) are members of the "Transhumant Livestock Farmers' Network".

In a recent survey (Rangos *et al.* 2015) the motivation of livestock breeders who continue transhumance today were researched into. The findings confirm the impression prevailing among those who study the system: transhumant livestock farmers are mobilised both by financial and by non-financial factors, confirming that the system is multifunctional and that farmers themselves perceive it as such. The recognition of the multiple motivation of transhumant livestock breeders, the multifunctionality of the system and the complex nature of the decision to adopt it were the main reasons which led to the establishment of the "Transhumant Livestock Farmers' Network". The purposes / objectives of the network and the actions through which to achieve them concern the protection and promotion of the multiple manifestations of transhumant livestock farming, which are essentially the motivation that encourages farmers to continue practising it.

b. Safeguard Measures taken in the past or applied today (on a local, regional or national scale)

The "Transhumant Livestock Farmers' Network" has been integrated in contemporary extensive livestock farming systems (i.e. the type of livestock breeding whereby flocks graze on meadows, as opposed to intensive or stabled livestock) of the European Union (see the Koblenz Declaration, Annex III). Through this lens, the functioning of the system is subject to problems that differ significantly from those affecting transhumant livestock breeders of past decades and historical periods, but this does not alter the essence of their aspirations. The lack of a clear recognition of the system, the misconception which was diffused for years that the system was dead or, at best, anachronistic and the broader framework of the policy pursued (Common Agricultural Policy of the European Union) resulted in the system being considered on the basis of criteria common to other systems of breeding, even though differing in their essence, philosophy and management profile. This issue is common to

extensive/territorial livestock farming systems across Europe. Research has highlighted the fact that the economical effects of the system are satisfactory, but its operation is threatened by structural shortcomings.

c. Precautionary measures proposed to be implemented in the future (on a local, regional or broader scale)

The "Transhumant Livestock Farmers' Network" is a non-profit organization set up at the beginning of 2015, with the aim of highlighting the value of transhumant livestock farming as a cultural good as well as the preservation of the cultural heritage and culture of transhumance in general.

Specifically, the Network aims at:

- highlighting the cultural and environmental sustainability of the transhumant breeding system;
- highlighting the economic sustainability of the transhumant breeding system;
- highlighting good and environmentally responsible practices in the transhumance of flocks and the use of pasture lands, the sustainable use of land and natural resources and the preservation of genetic diversity within the framework stipulated by the Common Agricultural Policy and the country's environmental policy;
- highlighting cultural elements deriving from the system and their utilization within the framework of development initiatives;
- managing programs, either autonomously or in cooperation with agencies in Greece or with networks abroad, in the context of achieving the objectives of the Network;
 - diffusing the experience resulting from the study of the system;
 - promoting products of the system of transhumant livestock farming.

The ways of utilizing the cultural heritage of transhumance are numerous, a fact due to its multifarious manifestations. The Network seeks to undertake a wide range of actions in order to utilize these cultural elements, such as:

- elaborating informative-educational material, so that the broader public may come into direct contact with transhumant livestock farming as intangible cultural heritage. At a subsequent stage and with appropriate adjustments, this material could be distributed in primary and secondary education and be integrated within the framework of environmental education courses;
- expanding over all areas of Greece and integrating all aspects of the cultural heritage of transhumance, thus highlighting the common origins of the system throughout the country. At the same time, there is a need for constant communication and cooperation with respective agencies abroad, both around

the Mediterranean (Italy, Spain, France), where flocks are transhumant, and with the other countries of Europe, where territorial livestock farming systems are encountered;

- studying the trails of flocks in an integrated manner, through a multidisciplinary approach (folklore, ethnological, sociological, space planning, architectural, ecological, economic factors). Apart from highlighting and promoting them, recording and studying all the features of the trails can also be used to revive the trails and utilize alternatives of recreation available to the tourists and travellers interested;
- supporting traditional fairs and enriching them with culinary events, aimed at the promotion of local products;
- setting up a museum of cultural heritage of pastoral life associated with the transhumant breeding system.
- conducting market research into goods that could be produced from the raw materials of transhumant exploitations, but also products obtained at the level of farms or small geographical areas. Through the organisation of appropriate promotion strategies, these products can have high value added, with significant benefits for producers and small local businesses (e.g. cheesemaking facilities);
- arranging targeted actions which in the medium term will lead to a change of culture and will boost the self-confidence of farmers themselves but also to a change of the manner in which society treats them.

As mentioned above, the transmission of a livestock farming exploitation along with the particular know-how required from generation to generation is a complex phenomenon. However, the lack of specialised schools and structures of (theoretical and technical) training for the learning of the profession remains a problem. After the model of schools such as those in France ("Écoles de Bergers"), the development of such structures would have multiple benefits: firstly, the better training of young persons in transhumant livestock farming, secondly the systematization of the existing knowledge, which will contribute to its preservation and, thirdly, the consolidation of the status of the profession of transhumant farmer, now as graduate of a recognized educational structure.

9. Bibliography

a. Greek

• Law no. 4056/2012 (Government Gazette issue no. A'52/12-03-2012) under the title «Ρυθμίσεις για την κτηνοτορφία και τις κτηνοτορφικές εγκαταστάσεις και άλλες διατάξεις».

- Λουκόπουλος, Δ. (1930), Ποιμενικά της Ρούμελης.
- Πίτεοης, Χ., Ράγκος, Α. and Λάγκα, Β. (2015), «Το σύστημα μετακινούμενης αιγοπροβατοτροφίας στην Κοήτη», 5ο Πανελλήνιο Συνέδριο Τεχνολογίας Ζωικής Παραγωγής, Παρασκευή 30 Ιανουαρίου 2015, Thessaloniki, pp. 55-56.
- Ράγκος, Α. and Β. Λάγκα (2014), «Ο πολυλειτουργικός χαρακτήρας του συστήματος μετακινούμενης αιγοπροβατοτροφίας στην Ελλάδα». Πρακτικά 8ου Πανελλήνιου Λιβαδοπονικού Συνεδρίου «Λιβάδια–Κτηνοτροφία: Έρευνα και ανάπτυξη. Προοπτικές εργασίας για νέους», 1-3 Οκτωβρίου 2014, Thessaloniki, pp. 47-52.
- Συράκης Δ. (1925), «Η νομαδική κτηνοτροφία εν Ελλάδι», Γεωργικόν Δελτίον της Ελληνικής Γεωργικής Εταιρείας, ΧΙΙ, 651 -777.
- Ψυχογιός Δ., Γ. Παπαπέτρου (1985), «Οι μετακινήσεις των Νομάδων Κτηνοτρόφων», in Σαρακατσάνοι, Ένας Ελληνικός Νομαδικός Κτηνοτροφικός Πληθυσμός, Proceedings of a Conference, Serres, 1-3 October 1983, Athens.

b. International

- Braudel F. (1985), La Méditerranée: l'espace et l'histoire, Arthaud-Flammarion, Paris [= transl. into Greek as] Braudel, F. (1979 [1993]), Η Μεσόγειος και ο Μεσογειακός Κόσμος την Εποχή του Φιλίππου Β΄ της Ισπανίας (vol. 1:), Ο Ρόλος του Περίγυρου, Athens, Cultural Foundation of the National Bank of Greece.
- Brisebarre, A. M. (2007), Bergers et transhumances, Romagnat, De Borée.
- Campbell, J. K. (1964), Honour, Family and Patronage: A Study of Institutions and Moral Values in a Greek Mountain Community, Oxford: Clarendon Press.
- Chang, C. (1992), "Archaeological Landscapes: The Ethnoarchaeology of Pastoral Land Use in the Grevena Province of Northern Greece", in J. Rossignol & L. Wandsnider (eds.), *Space, Time, and Archaeological Landscapes* (pp. 65-90). New York: Plenum.
- CIHEAM (2011), Economic, social and environmental sustainability in sheep and goat production systems, Montpellier.
- Galanopoulos, K., Z. Abas, V. Laga, I. Hatziminaoglou, J. Boyazoglu (2011), "The technical efficiency of transhumant sheep and goat farms and the effect of EU subsidies: Do small farms benefit more than large farms?", *Small Rumin. Res.*, 100, 1–7.
- Galaty, J. G. and D. L. Johnson (eds.) (1990), *The World of Pastoralism: Herding Systems in Comparative Perspective*, New York and London: Guilford Press.
- García-Martín, P. (2004), "The history and characteristics of the Mesteña Transhumance Routes", in R. H. G. Bunce, M. Pérez-Soba, A. Jongman, A. Gómez Sal, F. Herzog and I. Austad, (eds.), *Transhumance and Biodiversity in European Mountains*, Report from the EU-FP5 Transhumount project. IALE

- publication series no. 1, pp. 255–258, Alterra: Wageningen, The Netherlands.
- Goltsiou, K. (2011), Research theme: Routes of transhumance-Research report for Greece, available online at http://www.prismanet.gr/canepal/en-10-research-topics/en-4-transhumance-routes/item/317-transhumance-routes-in-greece (accessed November 17, 2015).
- Ispikoudis, I., M. Sioliou, V. Papanastasis (2004), "Transhumance in Greece: Past, present and future prospects"», in *Transhumance and Biodiversity in European Mountains*, in Bunce, R., M. Pérez-Soba, R. Jongman, A. Gómez Sal, F. Herzog, I. Austad, (eds.), IALE Publication: Wageningen, The Netherlands, pp. 211-229.
- Karatassiou, M., G. Galidaki, A. Ragkos, K. Stefopoulos, and V. Lagka, (2015), «Transhumant sheep and goat farming and the use of rangelands in Greece», *Options Méditerranéennes* Series A, 115, pp. 655-659.
- Karatassiou, M., P. Sklavou, Z. Parissi, G. Galidaki (2015), "Land use / cover changes in Northeastern Greece from 1980 to 2000", in *Proceedings of the 7th International Conference on Information and Communication Technologies in Agriculture, Food and Environment* (HAICTA 2015), Kavala 2015, Greece.
- Karatassiou, M., Z. M. Parissi, P. Sklavou, "Impact of climatic conditions and transhumant livestock system on two mountainous rangelands in Greece", in *Options Méditerranéennes* Series A (ISSN: 1016-121-x).
- Koocheki, A., and S. R. Gliessman (2005), "Pastoral nomadism, a sustainable system for grazing land management in arid areas", *Journal of Sustainable Agriculture*, 25, pp. 113–131.
- Lagka, V., A. Siasiou, A. Ragkos, I. Mitsopoulos, A. Lymperopoulos, S. Kiritsi, V. Bampidis, V. Skapetas (2015), "Geographical differentiation of gestational practices of transhumant sheep and goat farms in Greece", in *Book of Abstracts of the 66th Annual Meeting of the European Association for Animal Production*, Warsaw, Poland, 31/8 4/9/2015, p. 488.
- Mahdi, M. (2014), "L'émigration des pasteurs nomades en Europe: Entre espoir et disillusion", in J. Gertel και R. S. Sippel (eds.), Seasonal Workers in Mediterranean Agriculture: the Social Costs of Eating Fresh, Routledge, UK.
- Mannia, S. (2010), Il pastoralismo sardo nella dimensione euro-mediterranea. Analisi antropologica e questioni economico-sociali. Tesi di dottorato in Antropologia Culturale: Scienze dei sistemi culturali. Università degli studi di Sassari.
- Mientjes, A. (2010), "Connecting lowlands and uplands: An ethnoarchaeological approach to transhumant pastoralism in Sardinia (Italy)", in S. Kluiving, E. Guttmann-Bond (eds.), Landscape & Heritage Studies Proceedings, Landscape Archaeology between Art and Science. Amsterdam: University Press.
- Nori, M. (2016), "Shifting Transhumances: Migration patterns in Mediterranean Pastoralism", Watch Letter 36. CIHEAM *Crise et résilience en la Méditerranée*. Montpellier.

- Nori, M., S. Gemini (2011), "The Common Agricultural Policy vis-à-vis European pastoralists: principles and practices", *Pastoralism: Research, Policy and Practice* 2011, 1:27.
- Ntassiou, K., I. Doukas, and M. Karatassiou (2015), "Movements with the Help of GIS. The Case Study of a Mountainous Village in Southwest Macedonia, Greece", 7th International Conference on Information and Communication Technologies in Agriculture, Food and Environment (HAICTA 2015). Kavala, September 17-20, 2015, pp. 821-831.
- Oteros-Rozas, E., J. A. González, B. Martín-López, C. A. López, C. Montes (2012), "Ecosystem services and social-ecological resilience in transhumance cultural landscapes: Learning from the past, looking for a future", in T. Plieninger, C. Bieling (eds.), Resilience and the Cultural Landscape. Understanding and Managing Change in Human-Shaped Environments, Cambridge University Press: Cambridge, UK, pp. 242–260.
- Parissi, Z. M., M. Karatassiou and P. Sklavou (2015), "Chemical composition of a Trifolium repens L. population in a grazed mountainous grassland in Central Greece", *Options Méditerranéennes* Series A (ISSN: 1016-121-x).
- Parissi, Z. M., D. Rapti, P. Sklavou, M. Karatassiou (2014), "Grazing as a tool to maintain floristic diversity and herbage production in mountainous areas in northwest Greece", *Options Méditerranéennes* Series 109, pp. 523-526.
- PastoMED (2007), Le pastoralisme méditerranéen, la situation et les perspectives. Modernité du pastoralisme méditerranéen. Rapport final pour le programme Interreg III PastoMED.
- Ragkos, A., I. Mitsopoulos, A. Siasiou, V. Skapetas, S. Kiritsi, V. Bambidis, V. Lagka and Z. Abas (2013), "Current trends in the transhumant cattle sector in Greece", *Scientific Papers Animal Science and Biotechnologies*, 46(1), pp. 422-426.
- Ragkos, A., A. Siasiou, V. Laga, Z. Abas and I. Mitsopoulos (2013), "Transhumant sheep-goat farming in Greece: The adaptability of a multifunctional livestock breeding system to the debt crisis", *XXVth ESRS Congress*, 29 July 1 August 2013 in Florence, Italy, also available at http://www.florenceesrs2013.com/wp-content/uploads/2012/07/ESRS2013 eProceedings.pdf, pp. 167-168.
- Ragkos, A., A. Siasiou, K. Galanopoulos and V. Lagka (2014), "Mountainous grasslands sustaining traditional livestock systems: The economic performance of sheep and goat transhumance in Greece", *Options Méditerranéennes*, 109, pp. 575-579.
- Ragkos, A., I. Mitsopoulos, S. Kiritsi, C. Piteris, A. Lymberopoulos, E. Palla, V. Bampidis and V. Lagka (2015), "Economic versus non-economic motives of transhumant farmers in Greece", *Options Méditerranéennes* Series A, 115, pp. 503-507.

- Ragkos, A. and M. Nori (2016), "The multifunctional pastoral systems in the Mediterranean EU and impact on the workforce", *Options Méditerranéennes*, Series A: Mediterranean Seminars No. 114, pp. 325-328.
- Ragkos, A., M. Karatasiou, Z. Georgousis, Z. Parissi and V. Lagka (2016), "A traditional route of transhumant flocks in Northern Greece: Cultural aspects and economic implications", *Options Méditerranéennes*, Series A: Mediterranean Seminars No. 114, pp. 345-348.
- Salzman, P. C. (1971), "Movement and Resource Extraction among Pastoral Nomads", *Anthropological Quarterly*, 44(3): 185–97.
- Salzman, P. C. (2010), "Tranhumance", in A. Barnard and J. Spencer (eds.), *The Routledge Encyclopedia of Social and Cultural Anthropology*, pp. 696-697.
- Salzman, P.C. (2010), "Nomadism", in A. Barnard and J. Spencer (eds.), *The Routledge Encyclopedia of Social and Cultural Anthropology*, pp. 505-507.
- Sidiropoulou, A., M. Karatassiou, G. Galidaki, P. Sklavou (2015), "Landscape Pattern Changes in Response to Transhumance Abandonment on Mountain Vermio (North Greece)", *Sustainability*, 7: 15652-15673.
- Sklavou, P., M. Karatassiou and A. Sidiropoulou (2014), "The role of transhumance in the evolution of vegetation and landscape: a case study in Northern Greece (Vermio mountain)", in *Proceedings of the 8th Greek Rangeland Conference*, 1-3 October 2014, Thessaloniki, pp. 59-64.
- Turnbull, C. M. (1965), Wayward Servants, London: Eyre and Spottiswoode.
- Wace, A. and M. Thomson (1914 [transl. into Greek 2009]), Οι Νομάδες των Βαλκανίων, Θεσσαλονίκη: Κυριακίδη.
- Vallerand, F. (2014), Εποχιακές μετακινήσεις και μετακινούμενες εκτροφές στην Ευρωπαϊκή Μεσόγειο, also available at

http://www.metakinoumena.gr/el/downloads/category/3-%CE%BA%CE%B5%CE%B9%CE%BC%CE%B5%CE%BD%CE%B1

10. Complementary Documentation

- a. Texts (sources, archival evidence etc.)
- b. Maps
- c. Audiovisual documentation (plans, photographs, sound records, videos etc.)

d. Online sources (hyperlinks)

http://www.vlahoi.net/politismos/ktinotrofia-xalikiou.html

http://www.metakinoumena.gr

11. Authors' contact details:

Name: Ms Vassiliki Laga

Capacity: Professor at the "Alexander" Technological Educational Foundation

of Thessaloniki

address: Sindos, 57400 Greece telephone no.: (0030)-2310 013892 e-mail address: <u>lagka@ap.teithe.gr</u>

Name: Mr Athanasios Rangos

Capacity: Agriculturist / Agro-economist, M.Sc., Ph.D.

address: Sindos, 57400 Greece telephone no.: (0030)-6937414305

e-mail address: ragkosagrecon@gmail.com

12. Location and Date of Elaboration of the Fiche

Athens, January 2017