



CULTURE AND NATURE: THE EUROPEAN HERITAGE OF
SHEEP FARMING AND PASTORAL LIFE

HANDICRAFTS BASED ON RAW MATERIALS FROM SHEEP AND GOATS

RESEARCH REPORT FOR GREECE

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INTRODUCTION

This Synthesis Report intends to describe the history and process of making handicrafts from sheep and goat raw materials, as presented by seven countries participating in the **CANEPAL** project, namely_Greece, Poland, Bulgaria, France, United Kingdom, Hungary and Estonia.

Each country offers a description not only of specific handicrafts, i.e. clothes, carpets, shoe ware, handles, music instruments etc., but also the historic, economic and social background of pastoralism and sheep breeding before and after the sector's industrialization and modernization.

It is quite evident that this productive sector surpasses the boundaries of animal farming as such, as it becomes a rich source of historic, socio-economic and cultural information on each country.

I/ SHEEP WOOL

1. Historic framework of Wool production in the seven countries

In **Poland**, the Tatras mountainous region has seen the birth of the 'highlanders' communities, characterized by a specific model of communal existence, economic and social relations, as well as a particular ethos, along with a set of customary, ritual and cultural behaviours. This pastoral heritage has become an important ingredient of this region's identity in modern culture. The sheep farming and co-related activities were a part of the highlanders' world; they determined the rhythm of local people's lives. Indeed, in the period of the self-sufficient economy sheep were the main source of support for local people. Besides food products they also supplied basic raw materials for production of highlanders' outfit, footwear, textiles and festive clothes. Cloth was made from sheep fleece, from which clothes were sewn and the leather was used for warm outer items of clothing: jerkins, fur coats and hats.

The area of Podhale belonged to royal estate and its inhabitants, who were the royal indirect subjects, enjoyed numerous economic privileges and personal freedoms. As we learn from the location documents of villages the locator, who usually became the village administrator received numerous privileges, including the right to run the above named workshops..

The rural plants had private owners, they belonged to particular families. They operated on a large scale until the 1950's. A fast collapse of mills, sawmills and fullers took place in the years following the 2nd WW, which resulted in ceasing the production of self-made cloth. Then the highlanders started using fabrics produced in factories in Bielsko Biała (a neighbouring province) to make their festive outfits. This situation lasted until the 1980's when an inhabitant of Poronin, a famous musician of Podhale named Tadeusz Szostak Berda, bought a mechanical fuller and started the production of self-made cloth for making black *cuchas*. Nowadays the fuller and the workshop of

regional attires are run by his son Tadeusz Szostak Berda. It is the biggest folklore tailoring workshop in Podhale, and even in the whole Małopolska. They mainly produce male cloth outfits for local highlanders and inhabitants of neighbouring regional groups.

In **Bulgaria** according to archaeological researches sheep and goat breeding can be traced back to the Neolithic Age. The population of the Balkan-Danubian area domesticated and raised sheep of the *tzakeł* breed. The wool of this sheep was brown. White wool was introduced during the Iron Age. Then a new breed of sheep was carried in Southeast Europe from Western Asia and Caucasus. The use of sheep skins, wool and goat's hair was directly evolving of the complex agrarian and stockbreeding nature of medieval rural economy. These raw materials were basic for many crafts developed in Bulgarian lands. These crafts were leather-industry and furriery, homespun manufacturing, wool braiding, goat's hair weaving, etc. Home textiles production satisfied the first-hand needs of the household while craftsmen guilds and the estate of craftsmen emerged in the feudal domains and in the towns. The crafts developed rapidly in the 10th - 13th century. During the 15th and 16th centuries textiles manufacturing was leading among the other developing crafts. In the 18th – 19th century the increased production of homespun *aba* and *shayak* (coarse woolen fabrics) went through different stages – from a home occupation and craft to manufacture. Many households in the Balkan and sub-Balkan settlements became small centers of that manufacture. This domestic industry is generally known as *abadzhiystvo* (homespun manufacture), i.e. tailoring and sewing traditional clothes (*terziistvo* – Bulg.) from the manufactured homespun fabrics. At the end of the 20-ies of XIX c. (after the formation of regular Turkish army) Ottoman authorities paid special attention to the *aba* (frieze) production as the military uniforms were made from that woolen cloth. In the late 18-th and early 19-th century the capitalist manufacture emerged. It developed in two forms – centralized and dispersed. The most powerful was the organization of manufacture in textile industry.

In **Greece** wool, cotton and silk were the main export products of Thessaloniki, then part of the Ottoman Empire. The French, interested mainly in wool and animal skins, were the first to circumvent obstacles that the Ottoman administration posed to wool exports. Wool yarns from Macedonia and Albania were exported through Thessaloniki commercial port and were considered as the finest in the Levant. Foreign consuls, in their reports, compared them to Spanish ones, deemed to be of the highest quality. During the time of the Ottoman occupation, in many regions of Greece, as in the mountain villages of Agrapha and Evrytania, weaving became a professional, manufacturing activity. The main products were capes, sacks, as well as a fine, all wool fabric fit for clothing, the famous dark blue or black coloured *dimito*. Most of these textile products were exported to Venice, France and other European countries. After Greece's liberation from the Ottomans and the development of the first urban centers, weaving emerged as a cottage industry with professional weavers. These were usually poor women who wanted to supplement their meager family income with their weaving on the loom. In Greece, up to the mid '50s, weaving on the loom was considered one of

the main household activities, as rural families would cover in this way their needs in clothing, beddings and rugs. Raw material was abundant and of good quality – namely sheep wool and goat hair – thus making weaving an art of enviable value.



Figure 1. *Evdoxia Tsoumani is learning to spin with her distaff and her father stands proudly next to her (Papiggo village, Zagori, 1922). Photo taken by the Danish scholar Carsten Hoeg*

In the **United Kingdom**, from prehistoric times wool has been one of the main textiles used for clothing and bedding. The wool from the small early native breeds was progressively improved until some of the varieties bred today emerged, with longer and finer wool as well as being suited to the often harsh climates of the upland areas where most of the national flock is to be found. Wool, flax and hemp provided the main yarn capable of being spun and woven into some kind of material and used for almost all clothing until cotton appeared in large quantities in the 18th century.

It is known that by the eighth century Britain was exporting woollen fabrics to the Continent and after the arrival of the Norman conquerors in 1066 the industry expanded. By the twelfth century wool was becoming England's greatest national asset. Cloth making was widespread, particularly in the large towns of southern and eastern England nearest the Continent. In 1331 King Edward III encouraged Flemish master weavers to settle here. They and their descendants were to play a part in the final ascendancy of English cloth. The export trade in raw wool recovered and the first half of the fourteenth century was a time of prosperity for English wool farmers. Cloth from English looms quickly achieved an international reputation. From being primarily a raw wool exporter, England became in the fourteenth and fifteenth centuries a manufacturer and exporter of cloth. At the end of the fifteenth century England was 'largely a nation of sheep farmers and cloth manufacturers'. The next two centuries saw continued expansion of the industry despite conflicts at home and abroad. Despite setbacks, raw wool exporting expanded, and so also did manufacturing of wool fabrics. This was becoming both specialized *and* localized (depending on each region's

resources, i.e. sheep pastures, soft water and water-power to drive milling machinery). In the sixteenth century Huguenot weavers, persecuted in France, sought refuge here and brought their skills with them. England began to surpass Flanders in woollen manufacture which, by the end of the seventeenth century, comprised two thirds of the value of her exports. Radical changes lay ahead, in the geographical disposition of the industry, in labour use and in manufacturing processes. The Industrial Revolution of 1750-1850 caused upheaval. It ushered in new inventions stemming from the Lancashire cotton industry, to mechanize and speed dramatically the processes of spinning and weaving. Manufacturing methods, unchanged since the revival of the trade in the fourteenth century, were now superseded. Mechanization had been opposed in the past and it was again. In the Luddite riots of 1812 equipment was destroyed by organized bands of workers, who feared they would lose employment. But machinery won the day. The older industries in such areas as East Anglia, where opposition had been most bitter, declined and never recovered. They were overtaken by Yorkshire where machinery was more readily accepted. The younger industry jumped ahead and never lost its lead, supported by abundant supplies of cheap coal to generate steam and, later, electrical power. Other important manufacturing centres developed in Scotland, famed for its tweeds; and in the West Country which specialized in production of high quality woven carpets.

In **France**, wool is the first “product” of sheep. Craftwork of wool has various stages. Shearing is the first, followed by cleaning the fleece and its transformation into yarn, and finally weaving. All of these techniques remained fairly rudimentary until the end of the XVIIIth century, for spinning using techniques which came from Antiquity in the use of the spindle and the distaff or the wheel from the XIIIth century. Technological evolutions appear from the XVIIIth century and their principle is the increased mechanization with the loom, the spinning jenny, the Jacquard loom. Even in the Middle Ages, the manufacture of cloth was organised in many different ways. Sometimes it was integrated into rural life in the form of home industry which tends to be concentrated in a few towns. In the XVIIIth century, wool industry remains more often carried out by rural craftsmen, closely dependent for sales upon cloth traders, knitting cloths of ordinary quality (twills, cheesecloth flannel) destined for the rural market. In the XVIIIth century, French wool production was not sufficient and the quality of the wool was too poor to meet the demands of industry: France imported wool from Spain and America but also from non-European Mediterranean countries. In this fashion, the French economy became integrated into the great international trade routes. Despite the existence of a large and unified domestic market after the French Revolution, French linen met with competition from British industry and also from the Verviers and Aix-la-Chapelle regions, which possessed new and excellent mechanical equipment. The technical revolution was a definite drawback for French industry which experienced the greatest difficulty in assimilating technical progress. Textiles are one of the first sectors to be affected by mechanisation and thus to witness the disappearance of craftsmanship. Home working of wool had practically totally disappeared from the

countryside from the second half of the XIXth century. Indeed, in the XIXth century, the wool industry had a two-fold spread geographically and technically, which have approximately the same extent. The wool industry is mainly situated in the north of France, in the north-east of the country. These industries are associated with great industrialists in the North of France, with the towns of Elbeuf, Louviers, Reims, Sedan having to compete with Belgian/German towns of Vesdre and Roer, and also with Yorkshire in England. Furthermore, the XIXth century is marked by a wide movement of democratization of the consumption of clothes, involving all fibres, which ended with the victory articles of clothing only of average quality, but both lighter, softer, more comfortable and cheaper, which were rapidly renewed and affordable by many strata of the population.

In **Hungary**, archaeological evidence from the time of the Hungarian conquest testifies that certain branches of handicrafts were pursued at a high level. Among them were the treatment of sheep's wool and skin. In the early period of the Árpád dynasty subjects with special professional knowledge were settled around the estates of the king and of the heads of clans. Written sources from 1255 refer to trade with sheep and leather, and Hungary joined the international trading network by commercializing broad-cloth. Guilds in the 14th-15th century used their monopolistic position to prevent merchants from selling finished goods. Sales took place beside weekly markets on fairs at national scale from the 14th-15th century. The right of holding fairs largely helped the development of the towns. The wealthy craftsmen protected their interests against the merchants through the decisions, prescriptions and prohibitions made by the town's magistrates. The number of craftsmen who joined the guilds in market towns and villages were increasing in the second half of the Middle Ages beside the guild members working in free royal boroughs. In the 16th-17th century the estate centres of big landlords grew stronger with the result that craftsmen settled down here and their activities were concentrated here. This development accelerates from the last third of the 18th century following the resettlement of the regions after the expulsion of the Turks. At the beginning of the 19th century, king Francis I issued a number of privileges in favour of different mixed guilds, joining mainly related professions.

Separation of industrial activities, carried out with permit and following the required qualifications and those of cottage industry takes place formally only from the middle of the 19th century. While in earlier times information about the cottage industry is due to the actions and prohibitions against the botchers, in the second half of the 19th century more attention is paid to them – especially thanks to the organisation of world exhibitions and their growing popularity. At the beginning of the 1880s some economists encouraged the development of cottage industry and the exportation of their products judging them as suitable measures to deal with overpopulation. Clothing made by traditional technology is no more worn by peasants, neither for daily, nor for festive occasions and for town people it represents rather luxury goods.

In **Estonia**, handicraft has always been valued by Estonians. In the 19th century and the first half of the 20th century, it was common for people to grow and process their raw material for themselves. Most of the work was carried out at home by the means available. The primary raw materials for sheep-based handicraft were wool and hide. The use of wool in households, producing commodities out of it, and its maintenance and care were part of women's work. At the same time, skin processing was done by both men and women. Wool was turned into yarn, which could be used to produce necessary items – sweaters, doilies, fabric, etc. Sheep hides were mainly used for making coats. In the 19th century, folklore had a very important role in farm work. All work was accompanied by different traditions and beliefs; work was related to certain dates or phases of the moon. Sheep were raised in farms in the countryside during the Soviet period as well. Firstly, wool was needed and meat could be used for different kinds of food. Weaving was performed at home as well. The Association of Craftsmen UKU was established during the Soviet period, its aim was to revive and develop the traditions of making traditional commodities and souvenirs of folk art. The work of UKU was organised on the principle of self-support. One of the main production articles of the association was textile – handicraft. In today's Estonia, sheep are raised less for wool and hides and more for mutton. There are many crafters' societies and partnerships all over Estonia, some active NGOs, in addition to a few enthusiastic handicraft businesses. Typically, sheep raising is not their main source of income, but more of a hobby. It is done by people who work for the appreciation of local wool and handicraft. Historically, sheep have been women's animals and have therefore been valued less than cattle or horses; handicraft related to sheep was also women's work.

Handicraft is nowadays sold either directly at farms or in local handicraft and souvenir shops, summer fairs, festivals and other outdoor events.

What we observe from the history of wool production in the seven countries, i.e. Poland, Bulgaria, Greece, United Kingdom, France, Hungary and Estonia is that the European space has been marked by some important historic events and developments that have affected European economy, society and cultural heritage. While *pastoralism* developed similarly in Europe as a significant economic resource, countries such as France and the United Kingdom, in Western Europe, established commercial networks with neighbouring countries or regions, i.e. Flanders, the Netherlands, German cities, that promoted not only exchange of woollen products (imports and exports) but also of techniques and hardware. Wars, invasions, religious revolts (Huguenots), in spite of their destructive effect, nonetheless created a mobility of craftsmen who moved from country to country enriching with their knowledge local techniques and know how.

Bulgaria and Greece, forming part of the vast Ottoman Empire, benefited from a unified space without borders and took advantage of commerce with the Middle East and Venice (the big commercial power of the time). As far as production techniques are concerned, they remained more as cottage industries, at a limited scale, catering

mainly for the needs of the population. However, in Bulgaria, although home textiles production satisfied the first-hand needs of the household, craftsmen guilds and the estate of craftsmen emerged in the feudal domains and in the towns. The crafts developed rapidly in the 10th - 13th century. In Poland the development of rural industry and entrepreneurship was favoured by social-economic conditions in the Podhale region. An important fact to take into consideration is the late industrialization of wool manufacturing in these countries.

The industrial revolution is the defining event that shapes developments mainly in the Western European countries; England is the first testing ground for new techniques, machinery and mode of production that changes customs and habits of hundreds of years. The mechanisation of production takes wool production to another scale, making it one of the most important industrial activities of the time. This is not to say that the rest of the European countries did not follow this new paradigm, nevertheless, the “core” industrialized countries in Europe were the ones that definitely were at the forefront of technical innovation and commercial expansion. The birth of nation states in the 19th century brought significant changes in Eastern Europe countries and the Balkans, as fledgling states deployed efforts to “catch up” with the industrialized Western and North European countries.

In Hungary it is very interesting to observe the development of guilds of both wool merchants and producers that gave great impetus to the urbanization process, as they thrived in cities outside the direct royal control. Wool production remained a cottage industry benefiting the local population. In Estonia, it was also a cottage industry, while in the Soviet era an Association was formed with the aim to revive traditional handicrafts and folklore items; indeed, this is the case today, promoted by NGOs and handicrafts associations.

2. Wool manufacturing and processing - tools

There are some standard processes that have been used by wool producers since time immemorial to process the raw material and make it into yarn so that it can be weaved at the loom. Sheering, washing, combing – usually men’s duties – spinning and dyeing wool by women, were the most common activities.

In **Poland**, after sheering and washing the fleece it was subject to *cechrание* – (cleaning the fleece by hand) and then to combing. Combing was done with special *kręple*. They were two square wooden boards with metal spikes. The combed wool was passed to women who proceeded to spinning. The spinning was accompanied by discussions, stories and singing. The yarn obtained after spinning was coiled on reels and then formed into a skein and passed to weavers or woven at home on their own looms. In Podhale spinning was one of the basic and best developed handicrafts. In every village there were at least a dozen of weavers called *knopki*. The woollen fabrics prepared by *knopki* were passed to fullers, where they were fulled, in woollen fabrics

milling. Woollen yarn was used to produce both uniform fabrics in natural colours of sheep wool: white, black or grey from old sheep fleece. From combination of light and dark young sheep mousy colour was obtained. They also produced white-black-mousy stripes for shepherds' bags and checked fabrics for the so-called *derki*. They were used as covers and blankets for winter. All fabrics were made in a simple, i.e. linen weave. The woollen fabrics prepared by *knopki* were passed to fullers, where they were fullled, woollen fabrics milling. In comparison to other regions in Podhale there were a lot of processing plants. They were mills, sawmills, distilleries, dye-works, oil mills, shingle-works and fullers. The development of rural industry and entrepreneurship was favoured by social-economic conditions in this region.



Figure 2. Shearing sheep in Podhale. Phot. 50s Twentieth century (Collections Tatra Museum in Zakopane)

In **Bulgaria**, the tools used in shearing, processing and weaving are the following: wire combs/cards – *darátsi* (Bulg.), spindles - *vretena*, distaffs - *hurki*, niddy-noddies, skein winders, spinning-wheels, warpers, spools, shuttles, looms – horizontal and vertical. The tools are almost identical both in shape and name for the whole country, with some differences in local terminology. The wool sheared from a sheep is called ‘fleece’ – *rúno* (Bulg.). To remove dirt and to melt and remove fat away from the fleece, hot water is poured over it. After that fleece is washed in running water and dried in the sun. The wool is first carded by hand and then it is combed/carded with wire combs/cards - *grébentsi*. In the town and long ago in the country too, carding machines - *darátsi* were introduced for this purpose. The electric carding machine introduced in the early 20th century completely replaced the manual operations. Wool spinning is done with a distaff and spindle or by hand. With the help of a niddy-noddy – *motovílka*, skeins are made from the spindled yarn, the skeins are then dyed. Until the end of the 19th c. natural dyes and pigments were used for dyeing wool, yarn and woollen fabrics. The long experience and constant practice have established exactly which parts of plants can be used to extract pigments. The brown color for example is obtained from walnut leaves and the green shells of fresh walnuts; the beige in its various shades – from the barks of dogwood, quince leaves, oak galls, elm barks, plum barks, St. John’s wort, etc.; the yellow – from barley straw, onion husks, hellebore, apple peels, *kana* (Bulg. - the golden moss on the stones); the black – from branches and catkins of the broad-

leaved fir-tree, ash barks, oak leaves, etc.; the red – from madder roots, oregano, sumac, kermes. Since the early 20th c., however, the imported Cochineal has been increasingly replacing the natural dyes. The red dye obtained from the cochineal was called *vardziya*. Furriers process sheep, goat, lamb and weaned lamb skins and hides. Lambskins are bought around St. George's Day and the weaned lambskins – in the summer. Rural furriers work with materials provided by the client; urban craftsmen produce goods with their own materials. In their work the furriers use large amounts of sea salt, corn meal, barley or wheat bran and bread leaven. Tools are of two types: Fur processing kit: vats – *futii*; *arganets* – a container with narrow bottom and wide neck; *melitsa/ stan* – a frame for stretching skins and hides; scraper - *ogribka* for removing remains of flesh, fats and other impurities; *koltuk*; blunt knives for scraping; iron comb (*chesalo, darak*); scissors for trimming and scales.

In **Greece**, sheep wool comes in different qualities depending on the breed, animal health, climate and shearing season. Wool from the animals back is considered as superior quality, as fleece is long and thick, thus making a strong yarn. Wool from the sheep's belly and legs is second rate, as it is short, brittle and dirty. An old sheep may give up to one *oka* of "greasy wool" (unwashed wool).

Following scouring (i.e. cleaning the greasy wool) almost half of the wool's volume is gone. One of the quality criteria is the animal's age, for example, old aged sheep give longer and stronger fibers, while young animals produce shorter and thinner ones. The processes of making spun yarn out of wool fleece, as well as the tools used for this purpose, are the following: shearing, scouring, combing, spinning with distaff and spindle, dyeing with natural dyes and weaving on the loom. The wool straight off the sheep was sorted according to its finesse and colour, namely fine white wool, black wool, thick wool and "*batzak*", i.e. wool from bellies and legs, which is greasy and dirty. Furthermore, wool off dead sheep, or "bastard" wool falling off sick animals and "butcher" wool, that is wool of slaughtered animals bought from the butchers. *Pokari* is the total amount of a sheep's woolen fleece; usually it involves wool taken from the second shearing, as it is considered higher quality. The first shearing gives the *kolokourema* (or *kolokra*), coarse wool which is considered of inferior quality, as it is dirty and comes from the animal's legs and tail. In Crete, sheep were sheared in April. Those who had a lot of sheep to shear ("*kouradia*") they would invite friends and relatives to help them, organizing also a kind of feast for the participants. They filled bags with wool fleece and brought them home. From that moment on women took over, helping each other as it was hard work. First, they sorted the wool according to quality and spread it under the sun to dry. Next day they started scouring the wool, first bringing spring water – not well water – and then lighting a fire. Water was heated in cauldrons over the fire, and the wool fleece was dipped into the scalding hot water; after a short while, they rinsed them, combed them roughly and stretched them to dry; then they were put inside big bags. In winter time they would gather at home in the evening, neighbours, family and friends, all helping with wool combing. They would tell stories, sing songs and have a good time, going from house to house. Sorting thick

from thin fleece was done with a hand comb. Then they would start spinning using their distaff and spindle. It is worth noting that the whole preparation of the wool fleece was done by the elder women of the village; younger women would undertake all the other processes. Combing was done on the 'lanari', a special device made of four wooden planks forming a rectangular frame; in the middle of the top plank "iron teeth" were nailed vertically, so as to facilitate the wool combing. The next stage was spinning, i.e. making yarn out of the woolen fibers. Long fibers were spun using the distaff and short ones using the tsikrika, a simple wooden tool, used for soft and short hair fibers; it has a big wheel that is hand operated and motion is transmitted to bobbins that are like spindles. The perimeter difference between the bobbins and the wheel adds to the overall spinning speed. In the older times, housewives used to dye wool with natural plant dyes. Different plants were used to dye yarns in various colours. For instance, the "rizari" (*Rubia tinctorum*: a native shrub that grows in Southern Europe) was widely used for red colour, as well as poppies (used also in Ancient Greece), while onion skins and narcissus flowers give a beautiful light yellow colour.

Wool manufacturing in the **United Kingdom** involves two main types of woven cloth, namely woollen and worsted. The yarns for woollen cloth is usually made from short-fibred wool and during processing the individual fibres are thoroughly intermingled. In the worsted process, which uses the longer-fibred wools, the individual fibres are separated and laid approximately parallel to each other. Because of the different purposes for which it is suited, raw wool must first be graded and sorted - long wools for the worsted trade, short wools mainly for the woollen trade, the tough springy wools for carpets and so on. Whatever the final requirement, wool must next be cleaned in a soap solution to remove its natural grease and dirt. Machinery is then employed to extract seeds and burrs and other foreign matter which may remain. Short wools are passed through 'scribbling' and 'carding' machinery which produces 'slivers'-thin continuous ropes of wool-which in the spinning process are drawn out and twisted into yarn. The longer wools for worsted production are put through a 'comb' which produces ropes of parallel fibres known as 'tops'. These are then drawn out into finer and finer threads in the spinning process. Before weaving, the yarn which is to form coloured cloths is dyed. There are a number of finishing processes. Woollen cloth must be shrunk and felted by being passed through rollers and soap solutions. The nap (surface) is raised by passing the cloth through drums set with the heads of teasels (spiky plants) and then cropped by a kind of mowing machine. Raising and cropping are not needed for worsted where the aim is to

display, rather than conceal, the weave pattern. Despite the development of complex and elaborate machinery, the basic principles of spinning and weaving machines are the same as when primitive man first twisted raw wool into yarn between his fingers and then, on his crude loom, wove it into cloth.

In **France**, craftwork of wool has various stages. Shearing is the first, followed by cleaning the fleece and its transformation into yarn, and finally weaving.

Once a year, from March to June depending on the region, the shearers took off the sheep's fleece. Tools for shearing can be divided into two types: blade shears and scissors. The former is the forerunner of the latter. The blade shears have not essentially changed shape since their appearance in the Iron Age. Blade shears and scissors have since been superseded by hand clippers then by mechanical clippers. The wool was first washed, combed and possibly carded. Only then was it spun. It was mainly women who performed this task, usually on a non professional basis, connected with agricultural work. The work of spinning could be, depending on the region, a professional or home-based activity, carried out by men or women. To spin, women used the distaff, spindle or the wheel. The distaff was used to maintain the wool being spun and the spindle to make the thread (by plying the threads of wool) and to roll it. Once spun, the wool was put into skeins to make whitening and dyeing easier: the operation was carried out on a reel. Finally, by means of another type of reel, one rolled the yarn onto cops and bobbins. All of these techniques remained fairly rudimentary until the end of the XVIIIth century, for spinning using techniques which came from Antiquity in the use of the spindle and the distaff or the wheel from the XIIIth century. At this point the issue of combed and carded became central. Generally, the carding industry is firstly dominant in France at the beginning of the XIXth century. During the course of the century, this situation is reversed and the combed becomes dominant. This situation is far from being the same throughout the territory, since other parameters are added to technical evolutions such as supply of wool, the long movements of demand and also the changes in fashion. The preparation and spinning of the fibres reinforces further this distinction: the combing process is much longer and more complicated. After washing, sorting and pulling out the fibres the wool is subjected to the carding process where it is caught in the bobbins which have fine metal teeth which spin in opposite directions.

Wool leaves the carding process after stretching, in the form of a sheet where each fibre is clearly separated from the one which surrounds it.

Next, the combing process transforms this sheet into a yarn and eliminates fibres which are too short. The ribbon of combed wool which comes from these processes is the raw material of weaving; a strong spin is applied to it and the strength of the yarn depends on the type of spinning. Carding process is much simpler since after washing and eliminating vegetable particles the wool is carded in an assortment of three cards, different from those used in combing and the spinning of these fibres is not to make them parallel, but to interweave them. The yarn thus obtained is less fine than before, but suppler and hairier. Finally, at the end of the weaving, the carded cloths (made with this bigger and hairier yarn) are subjected to a great number of finishing processes which are designed to give to the fabric its final aspect. Amongst these finishing processes, fulling gives thickness and volume to the fabric. On the contrary, fabrics which are combed are subjected to far fewer finishing processes and they are not subjected to fulling.

In **Hungary**, the wool's most important traditional use was in clothing, secondly in the production of home textiles. In Hungarian the term *gyapjú* (wool) is restricted to describe sheep wool, wool of other animals are always completed by the animal's denomination. "The long and thick upper layer of fleece protects the sheep from rain and snow; the thin, soft fluffs underneath protect the animal from cold". The textile industry differentiates the breeds of sheep on the basis of the kind of their wool: a) merino sheep – having fine wool, b) breeds (cheviot, Lincoln) with long-staple wool, c) crossbred and d) sheep producing coarse wool (*karakul*, *racka*, *cigája*). Home-made clothing was hard-wearing, pleasant to the touch and easy to produce. Peasants' daily and festive outfit was made of wool combined with leather made of sheepskin, the other important sheep product. The textile made of wool without weaving is called felt. The very ancient producing technology precedes in time the knowledge of spinning and weaving. The technology makes use of the wool's characteristic that mixed with warm water and soap flakes, and by kneading and rolling, the fibres interlock and felt and create a homogenous, flat, untearable surface. The best material for felt is the merino wool: this versatile felt is suitable for use in several branches of industry, like in the clothing and shoe industry, in the furniture industry, for sound, heat and dust insulation. It is less known nowadays that wool was used also by the saddle-maker. The base frame, the tree of the saddle was padded with wool. Shredded wool was laid on the surface of the tree and after having covered the layer of wool with a piece of strong linen, it was fixed by cross-stitching.

In **Estonia**, types of wool have been named after the time of shearing. They could be called spring wools and autumn wools. Types of wool were named after the date of their shear: *Kadri* (Catherine's) wool, Shrove wool. Wool was usually categorised according to the area of shearing – underbelly, thigh wool, backside wool, tail wool. The best wool came from the sides and from under the belly; it was meant for fabric.



Figure 4. *Shearing sheep in Emmaste parish, island of Hiiumaa, Estonia (Photo K. Tali, 2006)*

Thigh wool and backside wool is long and was used for mittens, stockings etc. Properties like rough, soft, curly, long, medium length were also given to the wool. The tools for carding are cards. In Lügánuse they are called *karsdi*. Cards could be of two

types: thick and thin. Historically both plants and dyes sold in shops have been used to dye wool. Dyeing with plants has been described more specifically. The wool itself was either black or white. Grey wool was obtained by mixing black and white wool. Wool was dyed yellow, brown, red, green, blue and purple. For a yellow colour, onion peels, daisies and hill mustard were used; for a red colour star gentian or St John's wort was used; for a brown colour, alder bark was used; for a green colour, stems of heather were used, and for a purple colour the cornflower or thistle was used.

It is quite evident that in all seven countries, i.e. Poland, Bulgaria, Greece, United Kingdom, France, Hungary and Estonia wool processing became a fundamental activity that responded to increased production and commercial needs. Wool processing developed from homespun activity to fully mechanised process, especially in countries such as France and the United Kingdom that were the first in Europe to become industrialized. Indeed, technical innovation and mechanization of wool processing took place first in the United Kingdom, birthplace of the industrial revolution. Wool as a raw material demands intensive work so that it can be used as yarn for weaving purposes. A series of standard procedures were always followed: Starting with shearing, always men's work, followed by cleaning and washing, as well as combing, carding and spinning. It is worth noting here that these activities, as reported by Bulgaria and Greece, were occasions for cooperation and collective participation from the community as a whole. Sheep shearing, for example, took place during specific months of the year, depending on the country's climate, launching a series of tasks that called for active collaboration among all members of the community. Women played an active role in these tasks, for instance spinning and combing, sharing the workload among them, as well as taking the opportunity for socializing and celebrating (during spinning, combing, dying).

In the UK mechanisation came early on, as elaborate machinery, i.e. for scribbling' and carding, took over the workload from human hands. In France, where the distinction between combed and carded wool was of paramount importance, each region, "wool territory", specialized in a particular mode of wool processing, thus producing high quality wool products that bore the region's characteristic style. Historically, during a first stage carding centres dominated, while, later on, the replacement of carding by combing resulted in a total modification of the geography of the woollen industry, since there was a complete reversal in favour of combing centres. Thus, the wool industry was never a homogenous whole but was rather organized into centres with different history and evolution, as well as a very specific product culture. In Hungary, apart from traditional wool making for clothing and home textiles, the technique for making felt was significantly developed. In Estonia, carding was carried out in a standard way and dying with natural plants was also developed.

3. Weaving (sheep wool): Tools and techniques

In **Bulgaria**, the dyed yarn is wined into balls or on reels, then a number of very important preparatory operations follows – warping, winding and mounting the warp on the weaving loom. Depending on the number of loom treadles and heddles used in weaving there are several weaving techniques: basic (warp-and-weft), old ones and a combination of basic techniques with old and new ways of weaving – open-work, extraction, tied and others; also a combination of various techniques and complex weaving with many heddles.

In **Greece**, till the middle of the 20th century, weaving was one of the main household activities, as the needs of the village family in clothing, bedding and rugs were covered by women's work with the loom. There was an abundance of good quality raw material, namely sheep and goat wool that made Greek weaving an art in its own merit. Till the '50s, the loom was a standard fixture in every village house, since the daughters' dowry would be woven on it; a good dowry would list at least forty beddings and rugs. The loom (*argalios*) is the main tool to weave cloth. Throughout the ages, Greeks have given it a lot of different names: *argalios*, *telaro*, *argastiri*, *vua*, *krevati*. Homer calls it under the name of *istos* (from spider's web). Working on the loom was considered as a predominately female activity. Girls had to "weave their dowry and God will send a good husband for them". In terms of design, weavings can be distinguished in two categories, each with its own special technique: striped and embroidered. Striped weavings consist of consecutive coloured stripes. This can be achieved by alternating weft colours: wider stripes depend on more weft rows being passed through. Embroidery on the loom is more complicated because designs are created with the suitable arrangement of weft colour on the same row. It requires great skill and careful measurement, so that the weaver can create multicoloured designs, such as flowers, landscapes, birds, geometrical motifs etc. There is also a mixed technique, as the weaver can alternate both striped and embroidery techniques. *Flokati* is a kind of weaving that requires a different technique: During weaving on the loom, untwisted fringes are fastened between warp and weft, giving to the finished product, the *flokati* rug, a warm and soft texture. *Flokates* are usually monochrome.

Figure 4



*i/ Distaff and spindle, Greece, early to mid 20th century.
Cultural Association "Fraternity of Epirotes Sarakatsani in Athens".
(Photo by Pavlos Katris)*



*ii/ Distaff with spindle, Łukawiec, Poland, early 20th century
Collection of Museum Kresów of Lubaczów. (Photo: Andrzej Rychlewski, 2007)*



iii/ Loom, 19th century, Estonia. (Photo by E. Aarma, 2009)

In the **United Kingdom**, the medieval loom remained substantially unchanged until, in 1733, John Kay invented his 'flying shuttle' which was driven mechanically to and fro across the warp without having to be thrown 'by the weaver. Automatic spinning followed. Sir Richard Arkwright's roller-spinning machine was horse-driven at first and later, by water power, when it became known as the waterframe. In 1767 James Hargreaves, a Blackburn weaver, invented the spinning jenny, with multiple spindles mounted side by side. With this development one spinner could operate as many as 120 spindles at a time. Samuel Crompton's spinning mule combined the principles of both the water-frame and the jenny. The spindles were no longer stationary but mounted on a movable carriage. This travelled away from the rollers, drawing-out the wool threads which at the same time were twisted by the spindles to impart strength--a principle still used on spindles all over the world. Other machines were invented for preparing wool for weaving. They included the combing machine, used in the worsted industry for combing the long wool fibres parallel and removing the short fibres; and the carding machine for opening out, blending and straightening the wool fibres after cleansing. Eventually power was applied to all the mechanical processes. By the beginning of the nineteenth century Watt's steam engine was in the Yorkshire mills. By the end of the century hand loom weaving had practically disappeared. The way now lay ahead for continuing development-added refinements, improved quality and increased speed of manufacture which have made wool today, as in the past, the most valued fabric in the world.

In **France**, the loom goes back to the Middle Ages. The wool, after being first washed, combed and possibly carded, was then spun. To spin, women used the distaff and spindle. The distaff was used to maintain the wool being spun and the spindle to make the thread (by plying the threads of wool) and to roll it. Once spun, the wool was put into skeins to make whitening and dyeing easier: the operation was carried out on a reel. Finally, by means of another type of reel, one rolled the yarn onto cops and bobbins. Mounting the warp of a weaving loom was a very long operation. It was necessary firstly to warp i.e. gather together the same length threads which made up the warp of the fabric: the work was done on a turnstile from bobbins placed on a bench. The warps were then divided on a comb and rolled onto a wooden cylinder, the beam, placed behind the loom. After that, they were separated into odd and even yarns passing into the eyeholes of the two heddles. Then they went through a mobile comb the "ros" (which was used to compact the weft) before being fixed on a second beam at the front of the loom around which the fabric was wound. Once the warp was mounted, one introduced the bobbin into the shuttle. This created the weft by passing back and forth through the warp threads crossing over by means of pedals actioning the heddles. The temples enabled the material to be kept to a constant width.

In **Hungary** is worth noting the great importance that embroidery with woollen yarn. Indeed, embroideries made with yarn obtained from the wool of racka sheep and applied on hemp or flax linen were probably wide-spread in Hungary, testified by archive sources in the 18th century, however, very few examples are kept in museum

collection. The abandonment of their use from the middle of the 19th century is presumably the change from racka breed to merino breed. Embroidered pillow-cases from the region Nagykunság –Cuman unfortunately were destroyed during WW II in the old collection of Karcag Museum. It is very regrettable that much less examples of Cuman-embroidery have been preserved, compared with the known embroideries made in the Southern Great Plain. This is the survival of a measure of economy implemented in Middle Ages and practiced even in other forms of art, for example in woodcarving. Embroidery was applied on hemp, seldom on flax linen and this part was preserved after removing it from the complete pillow-case. Two other types of embroidery with woollen yarn are known in the region Kunság. More examples remained of the more widespread type, the free embroidery. The other type is known from Kunmadaras and Kunhegyes: the counted-thread embroidery. The practice of this embroidery disappeared at the end of Reform Age – but after having been discovered again, a fast revival followed, largely due to István Győrffy's write up about the embroidery in 1932.

In **Estonia**, when wool was spun at home in the old days, it was not washed. Allegedly, wool that had not been washed ran more easily into yarn. It was said that washed wool was dry and the yarn broke much more frequently. In earlier days, yarn was spun with a spindle. In the 1950s, wool spinning with a spinning wheel was common. A spinning wheel consists of a bench that is lower at one end. At the lower end a wheel is fixed between two posts, at the other end is the spinning mechanism.

According to the memories of older people, spinning wheel was introduced at the beginning of the 19th century. Spinning wheels were made of birch and also ash. The material also determined the price of the spinning wheel. In the Tsar era, a spinning wheel made of birch, covered with ochre, cost 3 rubles, while a spinning wheel made of ash, varnished, cost 5 rubles. During the era of the Republic of Estonian, a varnished spinning wheel cost 15 kroons, while a simpler one with a straight-sloping bench cost 11 kroons. After spinning, the next step is winding the yarn. When the bobbin was full, the yarn was wound onto the yarn winder. The spinning line was dropped from the flyer whorl, the end of the yarn was tied to the yarn winder and the winding began, colloquially known as "getting it onto the winder". Then again, some took the bobbin from the maidens and drove an iron spike

through the hole in the bobbin. Nowadays yarn spinning has once again become popular and there have even been Estonian Championships in spinning with a spinning wheel.



Figure 5. *Hanks of yarn dyed with plants. Estonia, 2007.*

(Photo by K. Tali)

What we can observe on weaving techniques, in all seven countries, i.e. Poland, Bulgaria, Greece, United Kingdom, France, Hungary and Estonia is that the loom, as well as the distaff and spindle were the original weaving tools employed by women who processed yarn so that they could take care of the household's needs in clothing and rugs. In the UK the introduction of the flying shuttle and the spinning jenny were the first steps into the industrialization of the wool sector, propagated to the rest of the Western European countries, as in France. The industrialization of weaving techniques took longer to reach the other countries, more in the periphery of the industrial revolution process. Carding was also a standard technique, performed either manually or with machines. Dying with natural plants was also very popular, especially in these countries, such as Bulgaria, Greece and Estonia where the whole processing took place with more rudimentary means. Embroidery with wool yarn was especially developed in Hungary, as it was also practiced in Greece and Bulgaria, as it was considered a highly valued aesthetic enhancement of the woollen textile.

II/ SHEEP WOOL HANDICRAFTS

1. Garments – Clothing industry

In **Poland**, in the old times, the basic male outer coat was the so-called *cucha* previously called *gunia*: its form was similar to a homespun coat, i.e. a kind of overcoat with long sleeves. This simple style and the very term *gunia* meaning both the outer coat and a piece of thick self-made cloth has become for Seweryn Udziela the ground for drawing a conclusion that the *gunias* of Podhale have ancient origin. Also men's trousers called *portki* were made of white home-made cloth. They were cut to a "Hungarian" style and they had narrow legs which ended a little under the ankle. On frosty days, mainly for work in a forest, men wore woollen, white-mousy *smuziaste* one-finger gloves. Because in the period discussed women did not know how to knit, the gloves were woven on a special slat on which canvas were placed and then the woollen weft was woven. Knitting, that is *plecenie* as researchers dealing with folk crafts notice, was not traditional handicraft of Podhale¹¹. This skill became common among women of Podhale only in the first half of the 20th century. Promoted in the 1920's it soon became important. These kind of knitted regional products were mainly intended for sale to tourists who visited the Tatras. The folks from lowlands willingly acquired highlanders' sweaters in natural light, grey and black colours. Geometrical patterns appeared on sweaters, socks and gloves to increase their aesthetic values. It is worth noticing that in Podhale there were two kinds of fur coats: jerkins – i.e. short sleeveless fur coats with long white hair, and proper fur coats with long sleeves. They were worn both by men and women. The winter outfit was supplemented with sheepskin caps, the so-called *barankule*, made of black mountain lamb (*wyporki*) with the fur outside.

In **Bulgaria**, until the early 20 c., hand weaving provided all necessary equipment for the household – rugs, carpets, tufted textiles, cushions; fabrics for home use – cloths, bags, sacks, saddlebags and more; woolen fabrics for making the traditional clothing – sleeveless tunics (*sukman*), *saya* garments, *poturi* (kind of trousers/breeches), jackets, vests, topcoats, etc. The traditional clothing of the Bulgarians was almost entirely made of wool. The hooded cloak *yamurluk*, also called *opandzhak*, *gunya* – deserves special attention here as a typical shepherd's outfit. It is represented in texts of the ancient authors and in images on decorated pottery. Initially, woolen braiding developed as a home occupation for the manufacture of multi-color woolen cord (*gaytan*) to decorate the homespun clothes. Furriers process sheep, goat, lamb and weaned lamb skins and hides. Rural furriers work with materials provided by the client; urban craftsmen produce goods with their own materials. In their work the furriers use large amounts of sea salt, corn meal, barley or wheat bran and bread leaven.

In mountainous regions of **Greece** shepherds used to wear thick woolen capes, woven on the loom. White woolen capes were the most common, and a good cape needed approximately four kilos of thickly spun wool. Traditional female costume (sigouni)

had more to do with individual handicraft than specialized tailors workmanship, that is why they have preserved, over the years, their traditional form and decoration, in contrast to traditional male costumes, crafted at tailor shops and embroidered by skilled craftsmen. Female costumes with *sigouni* were common in Greece, during the 18th and 19th centuries. *Sigouni* was an all woolen fabric, woven on the loom by women for their own use.



Figure 6. Goat hair mantle. Epirus, Greece, early 20th century. Cultural Association “Fraternity of Epirotes Sarakatsani in Athens”. (Photo by Eleni Liva, 2011)

In the **United Kingdom**, tweed is a hard wearing, rather coarse textured cloth woven from wools from native breeds and made primarily in Scotland in either the Borders or in the Outer Hebrides (Harris Tweed). The original name of the cloth was *tweel*, Scots for twill, it being woven in a twilled rather than a plain pattern. Tweed is used for suiting for both men and women. The tweed jacket or sports coat is both a hard wearing and practical garment made in a range of traditional and contemporary patterns of herringbone or check. It is also made into two or three-piece suits often used for “country wear” as opposed to city wear. Harris Tweed (*Clò Mór* or *Clò na Hearadh* in Gaelic) is a cloth that has been hand woven by the islanders on the Isles of Harris, Lewis, Uist and Barra in the Outer Hebrides of Scotland, using local wool. The Scottish Kilt is a knee-length garment with pleats at the rear, originating in the traditional dress of men and boys in the Scottish Highlands of the 16th century and earlier. Since the 19th century it has become associated with the wider culture of Scotland in general, or with Celtic (and more specifically Gaelic) heritage even more broadly. It is most often made of woollen cloth in a tartan pattern, although plain colours may be used. The Scottish Borders are also famous for high quality knitwear using home produced Shetland as well as imported merino wool and also imported cashmere. As well as the more industrial production local styles and techniques of knitting can still be found. Fair Isle is a traditional knitting technique used to create patterns with multiple colours; traditional Fair Isle sweaters are very popular.

In **France**, there has been regional specialization in different kinds of cloth and textile that addressed the needs of the time. More specifically, in *Louviers and Elbeuf* in Normandy (in the North West of France), in the 1870s, following the annexing of Alsace

by Germany, the textile manufacturers, were capable of adapting to demand. They launched production of summer products, with a finesse of patterns and colours for reasonable prices. These families then produced the *cheviotte*, a fairly rough material but which was suited to men's fashion, colourful fabrics for women's fashion (until then made in Germany) and flannels (Reims speciality) adapted to sports and in particular to cycling. In Roubaix and Tourcoing (in the North of France), the only local production "the Roubaix article", mixed fabric of wool and cotton, then of wool (towards 1880) was appreciated for its lightness. "The Roubaix article" came between the proletarian fabric of Vienne and the luxury fabric of Elbeuf or Reims. Roubaix even exported to England, which is extremely rare: whereas England produced standard fabrics of average quality and relatively cheaply, France manufactured products of good quality expensive and designed for the middle classes

Following the First World War which completely destroyed the town, Roubaix regained its place as textile capital despite the crises of 1929, then the strikes of the 1930s. From 1970, the difficulties were building up in the textile industry. The managers had not invested in synthetic textiles; production equipment was too old to be profitable.

In **Hungary**, the wool's most important traditional use was in clothing, secondly in the production of home textiles. Home-made clothing was hard-wearing, pleasant to the touch and easy to produce. Peasants' daily and festive outfit was made of wool combined with leather made of sheepskin, the other important sheep product. Completed with ornaments, the mentioned outfit indicated social rank and position. At the beginning of the 19th century woollen clothing was made by housewives in Hungary, especially in the region of Csík: Women are able to weave, to cut and to stitch underwear, coats and cloaks made of wool, linen and cambric for the needs of men and for themselves. The wool of the cikta breed provided material for thick socks, jerkins and gloves made by women of German origin in Tolna and Baranya counties. Furthermore, the craftsmen of German origin used to wear characteristic footwear called "*pacsker*", made of cikta wool as well. The *Szűr* (mantle), the word of Slavic origin, means textile woven of wool, furthermore, outer wear made of this textile. It was first mentioned in 1385 in the Vocabulary of Beszterce, meaning "grey broad-cloth, The embroidered mantle (*cifraszűr*) appeared in the beginning of the 19th century the festive garment embellished with embroidery and appliqué evolved from efforts in the 18th century, in spite of decrees prohibiting application of too much ornaments among peasants. A fur coat with long hair symbolized wealth. It was a desired attribute of rituals and procreation activities. A bride was sitting on a sheepskin or a fur coat during the rite of "*oczepiny*". It was also used in other ritual situations such as during Christmas. On Christmas eve before they sat down to dinner the host entered the house and he was well dressed in warm shoes and hairy fur coat carrying a bunch of oats and a green twig of fir in a shape of a cross, the so-called *podłaznicka*. Fixing the *podłaznicka* above the door he proclaimed wishes.



Figure 7. Sheepskin mantle. Hortobágy, north-eastern Hungarian plain.

Photo by István Ecsedi (1885-1935).

In **Estonia**, felting was done by professional artisans; since the 17th century felt has been used for making hats for men. These hats were black or brown, while in South-East Estonia also grey. Hats were made by hatters, the most famous ones being the ones from Haanja. Summer headwear for men from Karula was also a high felt hat with a flat bottom. Furthermore, boots from hard felt, also known as lime felts, reached Estonia at the end of the 19th century and in the early 20th century from the East. During the period of the Republic of Estonia, soft felt boots were made in towns.

Wool, as we know, is a 10,000 years old textile fiber. The story of wool began long ago, before recorded history when “primitive man first clothed himself in the woolly skins, of the wild sheep he killed for food. He had discovered a durable fabric which gave him what nothing else could give: protection alike from heat and cold, from wind and rain. A versatile fabric which kept him cool in the heat of the day and warm in the cold of the night, which could absorb moisture without feeling wet” (*International Wool Textile Organisation*).

Indeed, all national testimonies converge to the fact that wool was primarily a valuable byproduct of sheep rearing, its process to textile fabric following the stages of economic development in Europe. From homespun essential clothing, to humble industrial fabric and prestigious costume, denoting social status (in Poland the fur is as a symbol of fertility and abundance), wool played an essential role in the economic and social history of Europe. At some point of their history, countries such as France and the UK based their economic growth on the effective processing of wool and its subsequent transformation into clothes for poor and affluent alike. Wool, felt and fur protected people in need from adverse weather, during their hard work or military campaign. Fashion and taste promoted different styles of woolen fabrics, resilient, soft, versatile, embroidered or duly decorated. Today, pure wool does not feature as an all important raw material for the clothing industry; it has been mostly substituted by a combination of wool and synthetic fibers, destined for mainstream quality clothes. However, there are still some market niches that still supply to those who appreciate it, the perennial comfort and beauty of a well made woolen piece of cloth.

2. Rugs (sheep and goat) – cultural objects

In **Bulgaria** we have the common woolen rug, with the main function to provide warm wrappings for the sleepers, as well as the “carpet rugs” – *kilimeni chergi*, that split off as a separate group in the early nineteenth century. Typical for them is that different motifs (mainly geometric) began to be woven in the patterns of the multicolor rug. The carpets – *kilimi*, were made on special vertical looms in smooth carpet weaving technique. During the last two centuries two big carpet-producing areas emerged – East Bulgarian centered in Kotel and west Bulgarian in Pirot (now in Serbia), Chiprovtsi and Samokov. In these centers gorgeous carpet masterpieces were created that persisted during the 19th and early 20th century in the wealthy Bulgarian houses, churches and monasteries, as well as in the mosques. On this basis, the carpet-weaving craft emerged, practiced generally by women. Quite dramatically, with climaxes and declines, this craft continued to develop up to the present day. Goat’s hair rugs bear the name of the material from which they are woven - *kozyatsi*. The warp of the old goat’s hair rugs is woolen and the weft – goat’s hair. Subsequently wool was added to the hair weft. By the end of the 19th century goat’s hair rugs were woven in the natural hair colors – white, brown, grey and black. Some ritual objects and attributes, special fabrics were also made of wool. They were required as compulsory elements in some calendar and family celebrations: in the wedding ceremony – the small rug for the bride’s horse, the brother-in-law’s bag, the mother-in-law’s rug, the wedding cushion, the wedding flag of the Karakachans, the woolen red veil of the bride (represented in the past by a male’s girdle), the new woolen bags for the ritual food on St. Thrifon’s Day and Easter, the woolen socks for family gifts on Christmas Eve etc.

In **Greece**, the *Chrami* is a thick woolen fabric, woven on the loom, very common in everyday life, used extensively as bedding, blanket or rug. It is considered as the oldest kind of weaving, because ancient themes are depicted and woolen warps remain preserved, before, that is, the introduction of cotton yarn. *Kilimi* is also one of the oldest kinds of rug that have been preserved till today and there are still rugs dating since the middle of the 19th century. In spite of the fact that they have been in use for so many years, amazingly enough, they still preserve their vivid colours, almost unchanged, because they had been dyed with natural plant dyes. *Patania* is the thick woolen blanket, or, more generally, the bedding that is woven on the loom. There are various types and qualities, as we have one-leaf, two-leaf or even three-leaf blankets. *Flokati* is also very popular. The *wedding banner* is a widespread custom in the Greek regions of Epirus, Thessaly, Macedonia, Thrace and Sterea Ellada. Moreover, it is also common practice in other Balkan countries, such as Albania, ex-Yugoslavia, Bulgaria and Romania. The same custom is fairly common to nomadic populations, such as Sarakatsani, Koutsovlachs and Arvanitovlachs, who have been mainly transhumant pastoralists, and nowadays have been significantly urbanized.

In **Poland**, in the beginning of the 20th century in Podhale a new variety of weaving appeared – production of weft-facing *kilims*. The new technique was introduced by

Polish artists, who in 1910 in Zakopane set up workshop Kilim”. It mainly produced *kilims* for urban clients. The *kilims* designed by famous artists were very fashionable among Polish intelligentsia in the 1920’s and the 1930s. During the period after the 2nd WW tapestry received the status of a regional handicraft and was included in the system of cooperative handicraft production conducted by Cepelia, i.e. the Centre of Folklore and Artistic Industry. Unfortunately, in the second half the 1990’s the young people’s interest in weaving decreased, which was to a large extent the effect of closing down Cepelia, which meant liquidation of potential job positions for its graduates.

In the **United Kingdom** knotted pile carpet weaving technology probably came to England in the early 16th century with Flemish Calvinists fleeing religious persecution. These works are either adaptations of Anatolian or Indo-Persian designs or employ Elizabethan-Jacobean scrolling vines and blossoms. All but one is dated or bears a coat of arms. Like the French, English weavers used the symmetrical knot. Sheepskin is used for rugs, many of these are traditional in style, others more fashionable. Rugs may be made from single hides and tanned with the fleece on to provide a warm and shaggy rug. Increasingly there is a modern reinterpretation of sheepskin rugs by using natural variations of brown and white fleeces stitched together into geometric patterns suitable for more contemporary interior decoration. The company Anta, based in Edinburgh, produces a range of interior furnishings, carpets and upholstery to a very high standard of design using Scottish tweed and other woollen materials.

In **France**, today, markets for wool are mainly floor coverings and thermal insulation. As floor coverings, wool makes the most beautiful carpets, through the richness of possible colours, its ability to resist smoke and fire since it is not very combustible. Wool is also a very good thermal insulating material for carpets and also for insulation of walls and roofs.

In **Hungary**, in Szék in the region Mezőség, woollen woven blankets were decorated with alternating grey and black stripes. Red dyed thread was introduced later and pieces made in the middle of the 20th century are decorated with red-green and black stripes. Woollen blanket (*cserge*) the word of Turkish origin means a blanket made mainly of sheep wool in Transylvania and Moldova. It was made of two-four lengths, and woven of thick, long hair. Normally a *cserge* was grey, not dyed, later there were red, striped and chequered blankets too. It was home-made and in the 14th-17th century sources mention *cserge* as canvas suitable for tents. We have a reference from the 15th century referring to *cserge* as blanket; nowadays *cserge* is sold in handicraft fairs.

In **Estonia**, although felting is not traditionally a very widely spread way of wool use, it is becoming more and more popular nowadays. Felting can be learnt in different workshops and in the Folk High School and it allows the development of new interesting handicraft products like soaps with felt covering, jewellery, scarves, bags, coffee pot warmers, sauna hats etc. In Villapai is a manufacturer who specialises mainly in ecologically clean and natural small children and baby goods like diapers,

blankets and bags made from sheep and dog wool. Felting is also used by artists. Felted goods are usually sold in tourism farms and in souvenir shops.

The wedding traditions, according to which the bride has to give out woollen garters and mittens to the groom's kin and other wedding guests, are still vital to some extent. In the old days, crowded spinning and knitting bees took place in the houses of girls who were of age to be married to produce dowry or bridal chest, where the relatives and friends of the bride helped make garters, mittens and other gifts.

Woollen rugs and blankets, often under a common name, such as *kilim*, in Greece, Bulgaria and Poland, reflect the need for warm fabrics that would also add to the decoration of the house. Tapestry developed as an art form, while woollen ritual objects feature prominently in countries such as Greece, Bulgaria and Estonia.

III/ LEATHER – HORN – GOAT (SHEEP) SKIN

1. Leather

In **Bulgaria**, the tannery – *tabahana*, was supplied with animal skins and hides by the craftsman usually in spring - after St. George's Day - with lamb and kid skins, and after the Assumption Day – with weaned lambs skins. Fresh, dried and unsalted skins were preferred. The lime used in the skin treatment was supplied by arrangement with the lime-burner and was delivered directly from his kiln. Sumac and bran were bought at the market; wood ashes were collected from the fireplace and the dog's faeces were gathered from the streets and yards. The tannery had to be located near a river and to have two floors. Downstairs was the large fireplace. On the second floor there was a balcony (*chardak*), where the tanned skins were dried and rooms in which they were stored. The pits with the vats for soaking the skins in lime solution were in the yard. In the past animal skins and hides were vegetable tanned. This was the most environmentally friendly method for processing, but it was not effective. Subsequently, tanning solutions began to be produced by special extraction methods. For the needs of different crafts, tanners and leather-makers produced various types of leather: *meshini* – processed lamb or sheepskins for slipper-makers; *sahtiyani* – processed goat skins for saddlers' needs. By the end of the nineteenth century the manufacture of leather (mostly Russian leather, morocco and *sahtian*) and soft leather (*meshina*) was supplied with hides and skins exclusively from the local resources.

In Poland, the most common and typical element of highlanders' outfit was a jerkin. Until the middle of the 19th century it was made of not dyed sheep leather and trimmed with „*opryma*”, i.e. a narrow border of black lamb. The jerkins worn every day were made at home on local farms. After slaughtering a sheep the leather was purified from fat and spread on the door of a hut to dry. After drying the leather was placed on perches, where *oscypeks* were smoked, and it was smoked. After being smoked, it was stiff and well- preserved”.

In the **United Kingdom**, sheepskin is used for rugs, coats and gilets, boots (such as the currently popular *Ugg* boot which originated in Australia), gloves, slippers and hats. Many of these are traditional in style, others more fashionable. Rugs may be made from single hides and tanned with the fleece on to provide a warm and shaggy rug. Increasingly there is a modern reinterpretation of sheepskin rugs by using natural variations of brown and white fleeces stitched together into geometric patterns suitable for more contemporary interior décor.

In **France**, traditionally there were three main types of tanning: vegetable tanning, mineral tanning and tanning with fat which enables a vast range of resistant and hard-wearing products to be obtained. Leather making of whatever type, employs a mainly empirical knowhow (fig. 2) based upon the very close relationship between the tanners and their particularly unstable organic material. Calling on the five senses and making the whole body work, it drew on a considerable bodily and perceptive knowhow. This

physically exacting activity required great physical strength and a capacity to carry out precise and often delicate gestures, but also the capability of carrying out subtle observation to decipher in the changing aspect of materials, certain barely noticeable clues in necessary stages in the transformation of the material.

In **Hungary**, handicraft industry produces mainly two kinds of sheepskin products: leather goods and furs. Tanners removed hair from the hides with knives and prepared them following the “Hungarian method” with alum and salt. There was a high demand in Europe for the harnesses, straps and trousers made of leather. There are quality differences between kinds of leathers: According to László Nagy the hide of racka sheep – among the sheep and lamb skins suitable to produce thinner and softer than cordovan leather, called *szattyán* - was considered as more valuable than the hide of the merino sheep.

In **Estonia**, tanning helped increase the duration of use of sheep hides. The first tanning methods were fat tanning and smoke tanning. In case of fat tanning, the hides were soaked in a substance with high fat content; in case of smoke tanning skins were held near a fireplace with smoke. Nowadays, two tanning methods are common in Estonia: mineral tanning and plant tanning. Tanning made the leather soft, rugged and strong. Sheep hides were tanned as a side work on the farm or brought to a specific master – the tanner. It has been noted that tanning was done from autumn to spring. Tanning took place in the sauna hallway or a room built specifically for that purpose. Today, as there are currently only three companies who process sheep hides, the more demanding customers go to Lithuania, Finland and Sweden to tan their hides; it is claimed that the quality of tanning and of the hides is better there. Because the tanning of hides and their transport is rather expensive, sheep owners of one area collect the local hides, if possible, and send a large amount of hides in one shipment. There are some leather sewing companies in Saaremaa and Muhu, where they try to use local sheep hides, but most of the leather used for sewing jackets, coats and slippers is still imported. In addition to ordinary leather products soft rugs are also sewn in leather sewing companies out of discarded skin strips.

2. Musical instruments

Musical instruments, especially aerophones and membranophones (percussion), are an interesting case of sheep and goat skin use in countries such as Greece and Bulgaria. Indeed, we have a range of similar instruments, such as the *gaida* and the *tsambouna* in Greece and Bagpipe (*gayda*, *meshnitsa*), Gusla and Drum (*tupan*, *daul*, *talambaz* in Bulgaria).

Manufacturing characteristics of membranophone instruments in Greece: the goat skin, while making the *daouli*, is processed in the following way: First it has to dry, so it is either left under the sun, or simply is wrapped in salt and alum. After three or five days, it is put in quicklime with water. Another three to five days later it is cleaned and

smoothed with glass, also coated with oil to remain soft after being dried. Next, it is stretched and fastened on two wooden hoops, adjusting it to the two bases of the cylindrical wooden shell. The *defi* has only one leather drumhead, usually made of goat, sheep or hare skin, with metal bangles attached around the frame. In Thrace, they paint the skin with representations of flowers, birds, double-headed eagles, and they adorn it with silk ribbons. Regarding the *toubeleki*, synthetic leather (plastic) is nowadays replacing the goatskin, as it is much more resistant to humidity and cold. Indeed, goatskin leather heads tend to be very susceptible to temperature changes, during playing, since the sound may be altered (a prominent bass sound is created).



Figure 8.

i/ Gaida made of goat skin, Soufli, Thrace. Greece, 1950s.

(Photo archive, Museum of Greek Popular Instruments “Phoebos Anoyanakis”)



ii/ Pipes made of goat skin, Podhale region, Poland, 1990s.

(Photo: Sławomir Pytel)

In **Poland**, we have the *koza*, i.e. the bagpipes of Podhale. Until the beginning of the 20th century it was a basic instrument of highlanders' bands. As emphasized by experts, one *koza* and one violin were enough to play during the whole wedding reception. The bagpipes of Podhale started disappearing in the 1920's. They came back to the Podhale orchestra as a valued instrument at the end of the 20th century. Nowadays there are several musicians in Podhale who can play the *koza*.

3. Horn

Horn has been widely used to make artifacts such as:

- The “*Cretan*” *dagger* with its elaborate hilt (Greece)
- The shepherd’s crook, namely a long stick with a curved head designed to help the shepherd catch a sheep by the leg or neck (United Kingdom)
- Knives, combs (*les combiers*), lanterns, etc (artisans are called “*les corniers*”) in France.

IV/ CURRENT SITUATION - PERSPECTIVES

In **Poland**, the animation of the regional market is favoured by promotional actions undertaken by both self-government entities and cultural associations. This revival may also be connected with a broader European trend of interest in the regional distinctiveness. In Poland, after the period of system transformation in the 1990's and the necessity to adjust to the new economic conditions, the regional products regained their significance. As mentioned above, the initiatives aimed at activating and revitalizing some traditional fields of creativity contributed to it.

In **Bulgaria**, the sharp decline in sheep-farming in Bulgaria at the end of the twentieth century created rather unfavorable climate for the production based on raw materials derived from sheep – wool and skins. The traditional technologies, however, as intangible cultural heritage have been preserved not only in the museum institutions, but also by practicing artists and masters. The interest to the workshops and courses in weaving, organized with the efforts of the museum professionals, is growing continuously. Particularly important is the work with children who learn to respect the folk art and master the traditional skills in the use of wool.

In **Greece**, modern consumer society has marginalized traditional weaving crafts; only a few weavers still work on the loom, producing unique examples of a traditional art, creating original designs and beautiful, natural colours. Dagger makers, as well as traditional musical instruments craftsmen are almost extinct, carried away by mass production that offers less costly and labor intensive products. However, there are efforts to revive these traditional crafts, especially sustaining the traditional craft of weaving. Such measures involve:

- Organization of seminars that provide background knowledge in relation to the history of weaving, as well as practical training courses on hand weaving on the loom.
- Organization of workshops and conferences on traditional weaving and classification of woven textiles (organized by the Association for the Vocational Training of Young Women).
- Training courses on weaving organized by the Greek Museum of Folk Art.

In **France**, nowadays, professional organisations defend the professionals of leather and wool crafts. Leather production is an important economic sector and a significant part of luxury goods are manufactured through leather processing. A few companies have kept alive the tradition of comb and horn articles.

In the **United Kingdom**, wool has a long history as an important material and many of the traditions of manufacture have given great prestige to British products. It is ironic that wool itself fetches so little and is more or less a cost to the farmer while woollen products can command high prices. Wool is undergoing something of a renaissance at the moment and new approaches are being developed to make wool more attractive.

Wool has many excellent properties as a material and it is a pity that so much finds its way into house insulation which, while performing a valuable function, misses out on its most useful possibilities.

In **Estonia**, the biggest problem for artisans is the lack of wool processing factories in Estonia; presently, nine older factories are in working order, but their performance is low and the buying price for wool is also very low. Producing carded wool, yarn or felt out of one's own sheep wool is difficult. The NGO Saare Vill plans to open a modern wool processing factory in Saaremaa in 2012 with modern structure and know-how, but this factory will also be primarily serving the local sheep herders.

Although felting is not traditionally a very widely spread way of wool use, it is becoming more and more popular nowadays. Felting can be learnt in different workshops and in the Folk High School and it allows the development of new interesting handicraft products like soaps with felt covering, jewellery, scarves, bags, coffee pot warmers, sauna hats. Furthermore, hide tanning at home is carried out by a few enthusiasts in Estonia. Still, that traditional activity is also being revived by organising skin tanning courses, because the sheep owners have a lot of interest in tanning furs at home.

In **Hungary**, the middle and the second half of the 19th century was the time of flourishing of the furrier trade due to the development when peasant clothing became more colourful. From the turn of the century the trade is in decline; guilds are disintegrating, urbanisation takes place and factory products are sold on a large scale. The demand for traditional clothing for daily use however disappears together with the private farming activities of the peasantry. To sum up, we can say that the trade of furrier, wool weaving, embroidery with wool and clothing in broad-cloth may have a chance for survival only in the framework of folk art. Every activity concerning the use of wool and skin of sheep is present in competitions, handicraft fairs and handicraft schools up to now. The rich ethnographic literature in Hungary and the numbers of objects in museum collections enable us to teach the techniques and the motifs and designs, as well as to give them new functions and as a consequence, to re-interpret and to preserve our traditions.

EPILOGUE

It is not an easy task for the coordinator who tries to process such rich material from seven European countries to attempt drawing some general conclusions. In the beginning one has the impression that there are so many differences among individual countries that it is almost impossible to correlate history, economy, traditions, technology and handicrafts.

However, slowly but surely common lines and affinities start to emerge. Similar words describe garments, tools, technical processes, musical instruments in different countries. Common problems, social and cultural practices, economic advances and hardships. Earth-shattering events such as the industrial revolution, mechanization of production and agricultural decline sweep through national realities.

For sure, European history has not been exactly a bedtime story, in many occasions it has divided and pitted nations one against the other. What is interesting to observe, though, is that through mayhem and destruction, namely, wars, occupation, invasions, religious conflicts and migration, creative forces always managed to resume their productive activities, thriving once again either in their homeland or abroad.

Wool, leather, furs, sheepskin and horn were there to be processed and commercialized even under the most adverse conditions. Human toil produced beautiful and extraordinary handicrafts that at some point were substituted by large scale mass production in the framework of capitalist economy. Consumption became one of the basic rights of our democratic societies in Europe. Indeed, both textiles as well as leather industry became profitable sectors that were able to supply people with reasonably priced goods. The benefits are obvious and enormous and it is difficult to challenge them. However, something was lost in the process: the originality and beauty of the handmade handicraft. Ideally, one would like to have the best of both worlds: affordable products and beautiful traditional handicrafts. The latter are all important not only for aesthetic reasons but for another very important reason: they are vehicles of local, regional and national heritage that transcend modern national borders, reflecting common itineraries and encounters.

It is not by coincidence that the European Union, back in the '90s, recognized the importance of the European regions speaking with their own voice, thus encouraging the development of communication, cooperation and partnership among them. European projects, such as the CANEPAL project, remind us, once again, of our European identity and common cultural heritage.

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