

THE ECOLOGICAL AWARENESS OF THE VILLAGERS OF CRES

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As a contribution to the complex matter of the relation of Humankind to its environment, light is cast on the thinking and behaviour of the villagers of the northern Adriatic island of Cres. On the basis of a number of phenomena from husbandry as practiced by the people of Cres at the beginning of the 20th century, their relation towards natural resources can be identified, together with the manner in which they managed to meet their existential needs without disturbing their natural habitat.

Among the numerous and diverse problems facing the World at the close of the 20th century, the global ramifications of both the problems of disruption of the natural environment and of waste management are of utmost importance. The way to solution of these problems is undoubtedly very complex. However, when looking for such solutions, no harm can be done in recalling certain experiences from the past. As a start, one should again cast light on specific modes of behaviour and attitudes which were shown in small local or regional human communities in everyday practice, applied in the so-called pre-industrial period. A review of the wisdom of the "little man" - wisdom which grew in immediate contact with nature, and was adopted in direct verbal transmission from the former generation - could no doubt also be a source of inspiration to the "great" and "learned" modern World.

Let us therefore become acquainted with the relations towards natural resources shown by the villages of Cres in meeting their existential needs, and were a composite part of their traditional culture at the beginning of the 20th century.¹

¹ In 1988, I did research on segments of that culture - the economy and diet - in a number of Cres villages. The original tapes of the research are stored in the Documentation of the Institute of Ethnology and Folklore Research in Zagreb. As the outcome of that research project, I wrote a paper called *At Table on Cres. Traditional Foods in the Structure of Local Culture*. In compiling the study, I used both my own recent material and old ethnographic writings, published and unpublished, as well as other related professional and scientific works, cited in the text of the study and mentioned in the list of literature. The phenomenon from the life of the Cres villagers to which I draw attention in this paper, was the outcome of the study mentioned and is also based on the same scientific methodology.

What was it that distinguished the natural and cultural environment of the human community which is the subject of our interest? Firstly, it should be borne in mind that Cres is an island (with a total area of 404 sq. kilometres). This spatial specificity no doubt influenced the consciousness of its inhabitants, making them rely to the maximum on themselves and their resources. At the beginning of the 20th century, there were 8 600 such inhabitants, most of them living in village communities.

Geographically, Cres belongs to the northern Adriatic islands group - it is the one closest to the Istrian peninsula - and its climatic characteristics place it on the very outskirts of the Mediterranean belt. For that reason, the vegetation of its northern part is deciduous, while the south-western part of the island is covered in evergreen underbrush (*macchia*). The husbandry which the islanders initiated and developed resulted from the fact that the greatest part of the island's area - as much as 58% - is taken up by spare stony pastures. This is followed by 33% of forest lands, while the smallest share of only 9% is made up of arable land. And the latter - scattered with limestone slopes, and alluvium deposits from the Dolomite terrain or influx at the bottom of gullies - represents only a very small part of the area, almost indiscernible in the general landscape.

The cultivation of this land was neither simple nor easy. In fact, it had to be seized back from the stone. Numerous village generations were forced continuously to remove the stones from those tiny humus areas. This labour was unavoidable, but the Cres villager stacked the stones along the borders of his lot according to a well-conceived plan. Down the centuries, these stone enclosures - or dry walls - formed in this way a network across the entire landscape, providing it with its distinctive appearance. Although these walls represent human spatial intervention, because of the use of autochthonic natural material in an elementary technique - simple stacking of the stones without the use of any bonding materials - and the modest dimensions of the walls, the harmony of the natural environment was not disturbed. At the same time, the benefits were multiple. The permanent walls protected the valuable humus from being washed away by the rains, and with their perfectly ordered spiky stones, they prevented animals from getting into the crops. The great amount of stones which had to be removed - particularly the small ones - led the villagers to use them to stack lower, broader walls inside the plots. These were used as paths of a sort beside the plots, and also as supports for the grapevines.

The Cres villagers optimally adapted to the structure of the soil and other natural given conditions by raising sheep and -in somewhat smaller numbers - goats, as their strongest agri-cultural potential. Part of the money needed for existence was also earned by the export of fuel wood. Here again in this activity we can identify the principle which guided these villagers - to be confirmed in numerous examples to follow - that everything which is taken

from Nature must be returned to her. Consequently, they paid constant attention to the renewal of the fund of timber, applying natural forest renewal methods. Finally, within the small holdings and with the labour participation of all family members, they tilled the soil and grew their own basic food stuffs. In so doing, the accent was placed on authentic Mediterranean cultures - grapevines and olives. Of these two, because of the market at the period of transition from the 19th to the 20th century, the focus was on vineyards, while olive growing at that time was somewhat less represented. Planting of the old European bread grains - wheat and barley - and the more modern American crop-corn - - was modest, with yield which barely covered household needs, while the chronic lack of moisture, which is another characteristic of Karst terrains, limited the cultivation of vegetables and fruit.

Thus, the circumstances of life for Cres villagers did not offer prospects of affluence. To survive somehow, it was necessary both to work extremely hard and to behave frugally towards all resources. This necessity provided the impulse for them to be inventive and to utilise fully everything which they had available. Therefore, their production cycle most frequently indeed went through a full circle. A purpose was sought for every by-product, and any waste products were recycled.

This state of affairs can be illustrated by the following examples. Firstly in vine-growing, which has already been mentioned as having an important place in the rural economy of this island. Namely, this activity did not produce only grapes and wine, but a much wider assortment. We shall see how the Cres villager also produced other foodstuffs from the grape-vine, and even medicaments. This was a source of money-making - - a very important factor for this theme - and of natural fertiliser, an extremely necessary production material.

A somewhat paradoxical fact should be emphasised: despite the very efficacious production process implemented, no large vineyards prevail in the structure of Cres's agricultural land. Quite the opposite, in fact. The vine was planted on cultivated soil between other crops, both in gardens and in olive groves. Moreover, each scrap of land within the settlements was also used. Small spaces beside the buildings, surfaces not exceeding a few square metres, were planted with vines supported by rods, and were a composite part of the scenery in the majority of Cres settlements. Located between the walls of the houses made of chiselled stone and the dry wall enclosures, they augment and fill the gaps in the stoney environment, contributing to the harmonious beauty of the simple village habitats.

From the entire cultivation process, we shall refer to pruning. Keeping to the calendar, St Joseph's day - March 19 - was the day on which pruning of all the weak branches from the grapevine was done, leaving only two to three to develop. However, it could not be permitted that the cut branches simply be wasted. They were used in two ways. While still fresh, they were immediately

used as green forage for the donkeys, those ubiquitous beasts of burden on the Cres village holdings. But the branches could also be left to rot on the ground. Next season, this handy natural fertiliser was used to nourish the same grapevines, thus closing the recycling process.

The fresh ripe grapes were a welcome addition to everyday diet in autumn, particularly that of children. It was also customary to set aside a number of the finest bunches of grapes together with the branches they grew upon, and these were brought home and hung from the beams of the cellar ceilings. Air-dried, the grapes could also be eaten in winter. Apart from that, home-grown dried grapes were regularly used as ingredients in the preparation of fried biscuits without which no meal on Christmas Eve, New Year and Twelfth Night was considered complete.

Naturally, the major part of the grape crop was processed into wine. But only a small part of the wine was for home consumption, as the villagers usually served it only on festive occasions such as Easter, All Saints' Day, and Christmas, and at weddings, christenings and wakes. The major part of the yield was intended for sale - on the whole, to island taverns - thus ensuring the essential financial means for survival of the family.

But another production circle followed, in which the remainder of the grapes left after crushing was also used. This by-product was the huskus, from which the Cres villagers extracted multiple benefit.

After fermentation, which usually lasted between seven and ten days, they poured off the wine liquid, and poured water over the remaining huskus, thus prolonging fermentation for some time. In this way, they produced a type of light, watery wine. They used it on an everyday basis at home as a thirst quencher, an important factor in that parched and rocky region.

The huskus had another important use as raw material for making *rakija* (a type of fruit brandy). The villagers themselves carried out the distillation process in copper vats. It is a known fact that distillate does not retain the same quality throughout the distillation process; it is very strong in the early stage, and very weak at the end of the process. The quality of the *rakija* is highest in the middle phase. And they used the weak end liquid by thriftily mixing it with the middle-phase product. Namely, it served their interest to obtain as much domestically-made brandy as possible, as it was an important foodstuff in everyday diet. A small glass of the beverage with a few dried figs made up the customary first morning meal for the men in the household. But there was still the liquid obtained at the very beginning of the distillation process. As it was too strong or - as the people of Cres say - too "hard" for drinking, it was used as an external medicament in domestic medicine: for disinfection of wounds and for the alleviation of rheumatic pain and the like.

Apart from providing brandy and light wine, huskus was used further as a raw material for the production of vinegar. For this purpose, a small amount of the huskus was collected from the vat immediately after the fermentation of the must and set aside in a bucket. Wine - or water - - was poured over it and the mixture was left for a few days until it became sour. Then the liquid was strained and the wine vinegar was ready for use in domestic cookery, primarily as a seasoning for salads.

Whether it had been submitted to fermentation, distillation or acidification, still one more processing phase awaited the huskus, during which it was converted into fertilizer. This phase varied. The huskus could be taken out to the fields - in the same way as the pruned branches of the vine mentioned above - where it would rot through the winter months and be used in spring as fertilizer, for example, for potatoes; or it would be taken to the stables and mixed with the cow dung, thus increasing the volume of the manure needed for wheat growing. And it could also be used to feed poultry, whose droppings were used to fertilise the vegetable plots.

To sum up: in growing and processing of grapevines, the villagers of Cres produced fresh and dried fruit for domestic consumption, beverage for daily use and festive occasions, irreplaceable seasoning, a therapeutic preparation - as part of folk medicine - a natural fertiliser, and, in addition, they made money. The ready conclusion is that this was a very efficacious production process which, in addition - from today's view-point - was a highly ecological achievement.

For the sake of completeness, mention should be made of another method of utilisation of huskus, applied only in cases of extreme need. It was spoken of by elderly people whose memories of the conditions during the 1914–1918 World War period had not faded. At that time, there was a pressing problem concerning the lack of flour for bread-making. To make up for this, the islanders again resorted to huskus. After separating the huskus from the wine liquid following final fermentation, they left it to dry out well, and then ground it on manual mills in their homes. Mixing the obtained substance with wheat, barley and corn flour, they increased the amount of dough for making bread.

There is still quite a lot of evidence on the prevailing mind set in the traditional Cres crop-raising techniques; it was based on respect for natural resources and their sensible utilisation. For example, the primary and final product from wheat and barley growing was the grain, which was converted into flour by milling. The by-product was straw, which was used in a number of ways. Wheat straw was left in the open to rot and to be used as fertiliser. But it could also serve as building material. Bunches of straw were used as thatch roof coverings for the simple shelters which were built into the dry walls at distant fields and olive groves. When it was intended to use the straw by-product in this way, the grain was removed by hand-threshing using a flail

or swingle, so that the wheat stalk would be retained in its full length. In the same way, the threshed barley stalks were suitable for filling straw mattresses, used as the lower mattress in the villagers' beds. If the threshing of the straw was done by the trampling of live-stock instead of by the human hand, the straw chopped up in this way was used as fodder.

A high degree of utilisation, along with the production process with no waste materials, was also demonstrated with corn, a very important bread grain in Cres households. Corn flour, or corn grits, were irreplaceable because *palenta* (corn porridge) was the most frequently appearing food in their everyday diet. Along with corn seed, as the primary product, they also used the remaining parts of this useful plant. The leaves were removed from the cob, air-dried, and then used to fill softer mattresses, which were placed on top of the straw-filled mattress mentioned above. After picking the cobs from the corn plants in the fields, they cut off the flowers which were then used to feed the donkeys. And then, when the stalks were dry, they were burned. In this way the villagers cleared their fields, and, at the same time, enriched the soil with the useful ash components. The fields were then ready for planting of winter wheat, which followed corn in the planting calendar. The concluding point in the production process was one more waste product; the corn cob left after the grain was removed. It was allocated the role of an energy source, being used as fuel in the kitchen hearths.

It is evident by now how deeply ingrained the efforts were of the Cres villagers to make the most of the modest resources at their disposal, and, in so doing, to prevent any disturbance of the basic substance of their environment. Along with the procedures already mentioned - waste vegetation being removed in order to stimulate growth being returned to the culture as fertiliser in the following year - another fairly unusual practice should be mentioned, applied in the growing of olives. Similarly to other plants and trees, the olive trees also required regular annual fertilisation. With the chronic lack of manure, from time to time the Cres villagers would fertilise their groves with fresh soil with its natural resources intact. This humus lay under the stacked stones in the middle of the plots under the low, broad walls mentioned - "the paths". In order to reach it, the villagers had to disassemble the path using picks and move to the stones to another location, rebuilding the path after the soil had been removed. This really was an unusually tedious procedure. It shows not only their inventiveness, but also the Promethean persistence shown by these islanders in their struggle against the meagreness of their natural resources.

In stock-raising, the people of Cres showed similar behaviour and attitudes as in the raising of crops. It was said initially that sheep raising played an important role in the economy of these villagers; it provided, in any case, the most appropriate response to the structure of the soil, the plant cover and the climate of their environment. A particularity of sheep raising on Cres

lies in the fact that the animals stayed outdoors throughout the entire year, while their owners only moved them from one pasture to another, closer or more distant, depending on the course of the production process. The interweaving and permeation between individual branches of economic activity engaged in by the Cres village holdings, fitted into a balanced system, is seen in the community created between the olive trees and the sheep. Namely, by also grazing in the olive groves, the sheep replaced the human hand by cleaning out the weeds beneath the trees and loosening the soil, making it receptive to the fertiliser which they created with their manure. Of course, where vines and figs were planted beside the olive trees - and such plant communities were not unusual on Cres - sheep were banned from entry, as their grazing in such cases would have done more harm than good.

The benefits that the villages reaped from these quiet animals were both extensive and varied. On the trail of the application of practices in which resources were utilised to the full, they should be at least mentioned in passing. The primary product was milk. To a lesser extent, it was used as a daily beverage. To be sure, children and the female members of the household drank it with their morning meal, but mixed with goat milk. Women added it to "coffee", which was made from fried barley seed which replaced the coffee beans. Most of the milk was processed into cheese, which was always cured. They used this cured sheep cheese in their own diet, eating it in slices as an independent meal or grated as an addition to other foods. However, cheese was also one of the very important home products intended for sale.

Along with the production of cheese, there were a number of by-products for which the inventive people of Cres found use. For example, one of these was whey, the liquid remaining after the phase in which - after the curdling of the casein and straining - the cheese is left to mature. When the whey is cooked over low heat, whey cream forms on the surface. After cooling, it is strained and pressed and a new milk product - - the so-called *skuta* - is obtained. This was eaten fresh, usually with bread. However, the whey was not always boiled at once, but was left to stand in its raw state for a few days. It would then go sour, and produce sour *skuta*, which was very popular in the heat of summer. But *skuta's* many uses did not end there; it was the basic raw material for the preparation of butter. After it had been churned with a mallet for an hour or two in a special wooden pail, the *skuta* transformed into a smooth ball of butter, which the housewives then melted into rendered butter. In this way they ensured themselves valuable fats necessary for making cakes for special occasions, or food for nursing mothers, old people and the sick.

During the process of preparing *skuta*, when the curdled part of the foodstuff was set aside, the strained liquid remained. The thrifty islanders of Cres did not treat this as a waste product, but saw it as useful swill for their pigs. Thus we again encounter recycling. In this case, the by-product of

animal origin in the production of human food is returned to a domestic animal.

Among the benefits which the villagers had from their sheep, one was certainly the wool they produced. During the month of June, just before the summer heat, the men would shear the sheep, while further processing depended on the technological know-how of the women. They spun it into woollen thread from which they made knitted apparel: jumpers, male undershirts, socks, caps, and gloves. They also used the woollen thread in the weaving of homespun. At the beginning of the century, female weavers were still active in most of the villages and they wove fabric for women's skirts and male winter clothes on their home looms.

Apart from direct benefit from the spun wool in augmenting the wardrobe of the members of the family, the Cres villagers also sold knitted items of clothing in the town markets, and made money in this way. However, wool had an additional use in the households. In its unspun state, it was used for filling pillows.

When talking of making money from traditional Cres stock-raising, another important item should be mentioned: the lambs. It was customary to leave the lambs with the ewes for approx. one month after lambing. When the lamb reached a weight of between 10 and 15 kg it was taken for sale. The meat of Cres lambs was highly valued on the market because of the quality achieved through pasture in the open; particularly because of the grasses and forest waste exposed to the salt-bearing winds coming off the sea. The more prosperous villagers set aside a lamb or two for their own consumption. Grilled on the spit, lamb meat was a particularly desirable part of the Easter menu. But use was found for yet another by-product. The lamb stomach was used to prepare a rennet bag, an essential for the production of cheese. In this manner, the villagers made an even greater contribution to the natural nature of their very valuable product.

Along with milk, the primary products of sheep raising are, of course, meat and fat. Mutton was the most common meat appearing in the human diet on Cres. It should be pointed out that this meat was rarely eaten fresh. It was mainly conserved by curing, thus ensuring supplies of meat throughout the year. Further, by rendering down the mutton fat, the villagers made sure they had fat for seasoning, used in the preparation of various foods. One of them - the so-called *koluba* - is still mentioned with nostalgia by inhabitants of Cres villages. This is a type of flat, round bread; it is made from home-milled flour, stuffed with dried grapes and cooked dry figs, seasoned with suet, and baked over the open hearth fire. If one bears in mind that all the ingredients of the *koluba*, apart from salt and sugar, were produced by the household itself, it is no surprise that it often appeared on the daily menu. Suet was also used in the finalisation of cheese. In efforts to produce the most appetising looking film

on the cheese, it was spread first with olive oil - their own product - and after some time had elapsed, with rendered sheep suet.

Even that does not end the list of uses to which the animal was put. At sheep - and particularly, lamb - slaughtering time, the men of the households treated themselves to a food made from fresh blood. The method of preparation of this morning meal was very simple. First the blood was boiled and then fried on oil with the addition of onions, garlic, and salt and pepper.

The sheep intestines were also used as a foodstuff. Cleaned, rinsed and dried, the small intestine was fried and eaten as an independent meal, while the large intestine was preserved to be eaten during Carnival. It was then filled with a stuffing of flour, boiled dry figs, raisins, sugar and suet, and boiled in salted water to be eaten warm in slices.

However, the Cres islanders derived even more benefit from their sheep. There was still the skin with the wool, which they themselves cleaned and cured. Five to six skins prepared in this way would be sewn together as a bed-cover, which was very welcome and effective in their unheated rooms during the winter. But they also used the skins alone, removing the wool with the help of lime. These were then used in two ways. They were cut into circles and pulled over a hoop made of thin pieces of board, which then served as the base of vessels for holding flour; or the skin of the animal was kept complete, apart from the removal of the head and the lower parts of the legs. When these apertures were closed, they had a vessel of considerable volume. The sown-up skin was then used as an essential in grape-harvesting, as it was very appropriate for carrying home the grapes from the vineyards.

Sheep-raising thus left its mark in many segments of the former lives of these islanders, whether in diet, attire, home inventories, participation in agricultural activities, or in products intended for the market. This wide range can be augmented by one more use - in this case magical. Its origins lie in the widespread belief that some pointed objects can be a talisman against Evil, particularly against the Evil Eye. It was believed that this spell-casting was used particularly against the young of livestock. Therefore, when a sow had piglets, the villagers of Cres usually placed a ram's horn on the roof of the pigsty. Just in case!

If the examples mentioned have shown how very frugally the Cres villagers treated their raw materials and how their husbandry was marked by the rational, one could mention one more phenomenon, which also reflected their feelings concerning the balance between natural resources and human needs. This is what is in question. Often their vineyards and olive groves were quite far distant from their houses, located in rocky regions usually reached by hazardous paths. Consequently, all their harvests - heavy sheepskins filled with ripe grapes or sacks filled with picked olives - had to be carried on their own backs or shoulders. In order to alleviate the arduousness of these tasks,

they build resting places or lay-bys beside the paths. They added small platforms beside the existing dry wall fences bordering the plots. They built the platforms by random stacking of stones - something they were already skilled in - and flattened the upper surface with stone slabs. As average endurance was taken into account, the platforms were mainly 500 to 1000 metres apart. These discreet spatial indicators still distinguish the Cres landscape, testifying to a happy union between natural resources, building skills and utilitarian adaptation between the needs of labour and life, harmoniously fitted into the natural environment.

Finally, let us mention once again that these few fragments were composite parts of the way of life and traditional culture of the islanders of Cres at the beginning of the 20th century, and are already part of history. The implacable course of civilisation has already touched the villages of this Adriatic island, so that the life of inhabitants of the Island of Cres is very different today. The intention of this contribution was to draw attention to the "utility" of some of these phenomena from the past. The aim has been to throw light on a specific worldview, demonstrated in segments of materialised practice, which can be proximal to the contemporary concept of life and the World, and provide inspiration in future practice.

(Translated by Nina H. Antoljak)

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