

Insights on the Ring of the Three Regions

The reforestations

Next to the broad-leaved woods there are numerous pine forests. They are the result of reforestation carried out at the turn of the sixties on the fields till then cultivated by the farmers who lived on the farms owned by a few landowners. Starting from the 1950s, an impressive exodus affected the countryside and marginal and not very productive areas such as this one, which completely depopulated in about ten years.

Many of the farms were then purchased by the State Agency for State Forests with the aim of preserving the lands from the hydrogeological instability they would encounter if left neglected. The choice to operate the reforestation with conifers rather than with species already present naturally was, subsequently, much criticized and in fact today the reforestation is done with oaks and other broad-leaved trees.

Conifers were chosen, in all probability for two "political" reasons: their life cycle is shorter and consequently their growth is faster, the effect of reforestation would have been visible after a few years; the pine forests needed continuous cleaning, trimming, thinning and the management of state-owned forests was also attributed in those years a role of social safety net: they had to ensure work for the unemployed.

In all ways, the pine forests seem to have carried out the effect of preserving the soil effectively, but their fate is marked, if not in very rare cases, they do not naturally reciprocate and the community of deciduous forest species is already colonizing them.

The deciduous forest

The Selva di Meana Protected Natural Area, which occupies the westernmost sector of Umbria, together with the Monte Rufeno Nature Reserve, bordering it but forming part of Lazio, represent one of the mixed oak woods by extension, conservation and composition. best of central Italy. These are oak woods with a prevalence of Turkey oak (*Quercus cerris*) which, according to the areas, have both mesophilic aspects, therefore characteristic of cool and humid climatic conditions, and thermophilic, that is, adapted to live in warmer environments.

The cerrete have different degrees of mixture: they range from the pure cerrete to the mixed oak wood with maple, hornbeam, rowan and ash trees.

In the cooler northern exposures and near the impluvium there is oak (*Quercus petraea*) with hornbeam, maple and rare specimens of holly (*Ilex aquifolium*). The warmer slopes and at lower altitudes see the progressive increase in the oak forests (*Quercus pubescens*) and holm oak (*Quercus ilex*) accompanied by the rowan (*Sorbus domestica*), by the service tree (*Sorbus torminalis*), by the dogwood (*Cornus mas*) and by the Lesser maple (*Acer monspessulanum*). The most degraded oak woods have turned into Mediterranean scrub environments predominantly of holm oak with strawberry tree (*Arbutus unedo*), phillyrea (*Phillyrea latifolia*) and viburnum (*Viburnum tinus*).

Do not underestimate the shrubby part with the abundant presence of juniper (*Juniperus communis*), hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), heather (*Erica scoparia*) and broom (*Cytisus scoparius*).

Among the woods there are small and sporadic clearings but which in spring suddenly see many species of wild orchids (more than 30) as well as a great variety of spontaneous herbaceous plants.

The health of the forests

Along the Ring of the Three Regions, about 1 km from Podere Palombaro, in the Monaldesca area, there is an area where the forest is fenced and you can see a series of equipment connected to trees and the ground.

It is one of the 31 areas scattered throughout the country that through the FutMon project constitute a monitoring network for the health of the European forests.

These areas are representative of all the main Italian forest communities (beech, spruce, cerrete, holm oak, lowland forests, etc.) and this reserve is specifically a coppice aged *Quercus cerris*.

The project, coordinated internationally by Germany, sees the participation of 26 EU Member States and 38 Partners.

In Italy, and therefore also in this area of study, the experts of the State Forestry Corps (CONECOFOR service), the Council for Research and Experimentation in Agriculture (CRA) and the National Research Council (CNR) are involved. Important research is carried out indefinitely to understand how our forests are doing.

To this end, changes in vegetation and soil, the presence of fungal parasites and insects and their correlation with the development of plants, the chemical content of leaves and soils, changes in tree growth, atmospheric depositions are detected, climate and microclimate, impact of ozone concentrations and biodiversity.

In short, a real check-up to understand the interactions between air pollution, climate change and forest ecosystems and then use it as an early warning system of the damage of our precious forest heritage.

The Carbonaie

What today are high-trunk reconverted forests, for a long time have been coppice woods, heavily exploited with repeated cuts to obtain railway crossings but also for an abundant production of coal. It is therefore not unusual when traveling through these woods to find the remains of old charcoal pits, easily recognizable by the black earth that has now become refractory to heat, and in which sometimes small pieces of still charred wood are found.

The charcoal burners generally came from Abruzzo and even more often from the Casentino. They arrived in these areas for the so-called "forest season" which began with the first cuts in September and ended on June 29 for San Pietro and Paolo. They arrived when the cutters had already piled up enough wood to char.

Even before starting the charcoal pits they built huts, where they would live with their families, in the center of the wood to be cooked. They used large poles for the supporting structure and poles, clods and brooms for the infill, which intertwined and overlapped prevented the entry of wind and water.

The circular areas where the charcoal pits were made were called squares. The size of the squares was expressed in feet and normally an average charcoal pit had a radius of 10 feet. The distance between one and the other was about 100 m and they had to be absolutely level.

Inside, the bottom was filled with leaves and earth for at least 20 cm. In the center there was a wooden tower called castellina, with a square or triangular shape, the interior of which then became the fireplace called the pit. Then the wood began to be placed around the small castle in order to obtain a charcoal pit as round as possible with a shape similar to a dome.

The spaces that remained between one wood and another were filled with finer wood and then everything was covered with clods of earth and leaves to stifle the influx of oxygen during combustion. In fact, the coal production process exploits an imperfect combustion of wood, which occurs in conditions of poor oxygenation. At the base of the charcoal pit, large and horizontal holes were then made to regulate an exchange of air between the inside and the outside.

The charcoal pits were left to burn slowly for a few days, on average from 4 to 7 depending on the diameter of the wood.

According to the color of the smoke coming out of the side holes, the charcoal burner could see the progress of the combustion: only when the smoke was blue and transparent was the coal ready.

When cooked, the phase of scarbonization began, which required 1-2 days of work. First the coal had to be cooled with numerous shovelfuls of earth. Extraction was then carried out by extinguishing any embers that remained lit with water.

Finally the coal, when it was well cooled, was bagged and transported elsewhere by muleteers to be sold. This coal was used both domestic (kitchens, irons, stoves) and industrial. This type of activity lasted until about the 1950s, when the use of methane gas supplanted that of coal in domestic uses and beyond.

The mill on the Grossano ditch

The presence of the ruins of a water mill for grinding wheat in the apparently wildest stretch of this route shows us how different the presence of man and the use of this were, until a few decades ago. territory. Dozens of farms inhabited by peasants, scattered among these rugged hills, belonging to three different estates, needed such an essential service for the subsistence economy typical of the countryside.

Some testimonies of old farmers who lived in the area say they do not remember this mill still in operation, but they claim to have met the last miller, this Olindo, who lived and worked there, who had in the meantime moved to another mill further downstream on the same ditch. It can therefore be reasonably assumed that the mill was in operation until the 1920s.

The movement of the millstones for processing cereals represents the first form of use of hydraulic energy, the first evidence of the existence of the water mill in the Mediterranean basin, dates back to the 1st century BC. in the treatise *De Architectura* by Vitruvius (25 BC).

The operation of the mill was closely linked to the construction of a series of works aimed at collecting and regulating the waters. Thanks to a barrier (the truss), made with stones or tree trunks and often regulated by sluices to increase, decrease or stop the flow of water that was diverted into a channel called gora that reached the mill to feed the wheel. In cases, like ours, where the flow of the ditch was limited, a tank called bottaccia was built next to the building, in an elevated position with respect to the wheel, which constituted a water reserve.

The structure of the wheel adopted in situations of this type was almost always that with horizontal spoon blades. The complex man-machine relationship required the miller to intervene continuously:

- to put the machine into operation by introducing, through the gate, the water, which thus hit the blades
- to adjust the distance between the millstones, by means of the temperer, depending on the cereal to be ground and the quality required of the product
- to feed the machine by introducing the cereal into the hopper
- to check the product during the crushing process to eliminate impurities that could alter the quality of the flour
- to provide for maintenance of the system ensuring the efficiency of the millstones with smoothing work (remaking of the radial grooves on the internal surface of the millstones) and carrying out carpentry interventions for various repairs.

The Springs

A spring is a point on the earth's surface where an appreciable flow of underground water comes to light in a completely natural way.

It generally constitutes a source of water supply that can be used for the different needs of human activities, without altering the delicate hydrological balance of the aquifer that feeds it and this is because it is water that comes naturally to the day, i.e. that they are not artificially extracted from the soil. The existence of a spring and its operating regime are determined by the geological and morphological conditions of the aquifer and the geological formations that spatially delimit it around the source itself.

The sources are generally found at the contacts between very permeable rock formations (porous, fractured, etc ...), containing the aquifer, and rock formations with very low permeability (clayey rocks, for example).

When water encounters an impermeable surface, it flows along it until eventually it comes to day. In the area of the Villalaba Park and the Monte Rufeno Nature Reserve, the springs are often found around the same hill, at similar altitudes. This would seem to indicate that they are located precisely in correspondence with a contact between permeable rocks and impermeable rocks. Indeed, in those areas there are clays underlying conglomerates, certainly permeable, and other more coherent rocks (sandstone and limestone) which are also certainly permeable because they are pervaded by fractures.

When building the farmhouses, the proximity of a spring was taken into account, looking at the panorama you can see how often they are at the same altitude; in other cases, however, three or more cottages can be joined by an imaginary straight line, a probable indication of different inclined layers of rock.

Along the ring of the Three Regions, the presence of water becomes evident when you encounter a series of fountains such as the Acquaviva Spring. Built on the side of the road that led to the ancient village of San Pietro Aquaeortus, even before a Cistercian abbey, the source uses an old spring that flowed from the overhanging slope rich in water. Both toponyms in fact speak of water, abundant and pure in the case of the fountain, miraculous that of the former abbey which, according to belief, recalls a miracle worked by St. Peter who would have stopped here on his way to Rome. Having to baptize and not having water, he asked for it as a gift from God and immediately gushed the spring from which the name "aquae ortus" (water source). The source of San Pietro Aquaeortus is no longer visible as it is incorporated in the works of capturing an aqueduct, the same fate befell the one that fed the mill on the Grossano ditch. Further on, there are three other springs near the Palombaro, Poder Vecchio and Monaldesca estates, and lastly that of Villalba just below La Baita.

The Cassia, the Francigena and the Perugina

In some places our path retraces an old route known in the area as "Strada Perugina". This road connected the high valley of the Paglia with the Val di Chiana, connecting Acquapendente to Città della Pieve. The Paglia and Chiani valleys have alternated over the centuries as a privileged axis in the connections between Rome and Tuscany. In the current road network the road that connects Lazio to Florence passing through Bolsena, Acquapendente and Siena is called Cassia, but the Roman consular road dating back to the 2nd century BC. it had a different route: from Bolsena it passed through Orvieto, crossed the Paglia up towards the current Ficulle and continued towards Chiusi and Arezzo, then already important centers. In the second century AD, perhaps due to the collapse of the bridge over the Paglia, a first variant was built, the Via Traiana Nova, which passed over the Alfina plateau and in the current territory of the municipality of Allerona. It was in the period following the fall of the Roman Empire that the route moved even further west and, with the dominion of the Franks, the road was extended beyond the Alps, taking the name of Via Francigena.

More than a real road, in many places it was also a route traveled by the thousands of pilgrims who went to Rome. Sigeric, the archbishop of Canterbury, on his pilgrimage on the threshold of the year 1000, kept a detailed diary with a list of the places crossed, leaving a precious testimony that allowed us to reconstruct the ancient route. The construction of the Autostrada del Sole, after many centuries, has again moved the main road axis of central Italy to the Val di Chiana.

Numerous roads connect the two routes, many are still active for vehicular traffic, the "Strada Perugina" instead is partly incorporated in the Monte Rufeno Nature Reserve where its route is retraced by the Path of the Brigands which connects the Villalba Park to the Maremma.

San Pietro Aquaeortus

A legend would have it that the name of the village derives from a passage of San Pietro, prince of the apostles who, on his second coming to Italy, landed in Pisa and from there, moving to Rome,

passed through this territory making the miracle of gushing water to administer baptism. Hence the term "aquae ortus" (water source).

In reality, the village was born in the 11th century, as a monastic complex probably built on the area of a previous pagan cult.

The presence of the abbey of San Pietro Acquaeortus is mentioned around the year 1000 (L. Fumi), a time when its story is linked to that of the Farolfingi family who were Counts of Chiusi and Counts of Orvieto in the 11th and 12th centuries.

According to the scholar Spicciani, the abbey was located south of the land included in the donation made by Count Winildo in 1038 to the monastery of San Salvatore del Monte Amiata, straddling the border between the county of Chiusi and that of Orvieto, giving it a geographical location precise. In 1200 the monks of San Pietro belonged to the order of the Guglielmiti, also present in the nearby hermitage of Santa Maria di Marzapalo in the forest of Monte Rufeno, and in those of Loreto, not far from the castle of Meana, and of Camporsevoli in the contiguous Tuscan territory.

Historical sources agree in reporting that in the thirteenth century the monks of St. Peter belonged to the Cistercian order founded in the eleventh century with the spirit of returning to lead a monastic life according to the original physiognomy of the Benedictine rule that in the aftermath of the Council of Aachen (817) had progressively lost the distinctive features of austerity and manual labor.

The order originated from the abbey of Cîteaux (in Latin Cistercium), in Burgundy, founded by Robert of Molesmes in 1098 and spread rapidly also in Italy where the abbeys of Fossanova, Casamari, Tre Fontane, Chiaravalle are still known.

Little is known about the monastery of San Pietro and its monks in the 14th and 15th centuries. Between the end of the 1400s and the first decades of the 1500s, its history joins that of the Orvieto church of San Giovanni Evangelista degli Agostiniani in Bologna. In 1469 the monastery was reduced to a secular commendation in favor of the noble Enrico Monaldeschi who renounced it in favor of the Lateran Regular Canons and the deed was approved by Leo X with a bull of 8 January 1517. This is the most complex period and troubled history of the church characterized by the Protestant reform and the Catholic counter-reform that had its hinge in the Council of Trent (1545-1563) in which the doctrinal and theological foundations and the religious precepts were laid that would have renewed the hierarchy and the body of Catholic church.

In 1653 the leadership of the village church passed from the Canons Regular to the secular clergy. In 1676 the Canons sold the property of San Pietro Acquaeortus to Cardinal Bonelli from whom it passed to the Sinibaldi family, then to that of the Marquis Girolamo Antinori with the exception of a "small working land with house and church" which remained in the parish. Between 1768 and 1775 Nicola Antinori sold the land to Francesco Costarelli who passed it on to his descendants. In 1844 the San Pietro estate was purchased by the Orvieto canon Giovanni Napoleoni and later passed, by succession to Luigi Napoleoni and his sons and heirs Giovanni and Paolo who administered it until the early decades of the 1900s.

Between the last decades of the nineteenth century and the early twentieth century, the village had been equipped, by the municipalities of Allerona and Fabro, with the road, the school, and the cemetery, fundamental and indispensable services for the small community that with all the surrounding cottages has maintained a constant population of about two hundred individuals. But the main role was played by the parish which has always represented a point of reference for the social aggregation exercised through participation in ceremonies and liturgical rites also for the performance of the functions of the Confraternities.

In the early decades of the twentieth century, between the two world wars, the life of the village took place in close relationship with the town of Allerona, the seat of the municipality, both for

administrative and economic issues. In fact, in San Pietro during the electoral consultations a polling station was set up and a representative of the fraction was always present among the candidates on the municipal electoral lists. Between the inhabitants of the two settlements there was a mutual relationship on holidays but more frequent were the contacts with the generations of Alleronesi who often stopped in San Pietro during the winter and spring seasons destined to work in the woods.

The phenomenon of urbanism which, starting from the 1950s, has affected all the countryside, progressively removing from them labor for industry and services in large inhabited centers, has not spared this fraction that already in the census in 1961 it recorded 113 inhabitants almost completely disappeared at the end of the 1970s.

(Historical information taken from Claudio Urbani, San Pietro Acquaeortus: historical profile of an abbey and its monastic orders, Allerona 1978)

The sharecropping

The territory covered by the path today appears entirely wooded, but it was not so until only fifty years ago. The dilapidated or renovated farmhouses that you meet were inhabited by peasants and, where the surrounding pine forests are now, there were cultivated fields and pastures. The families who lived on the farms were linked by the sharecropping contract to the owners and, usually, organized around farms which in this case were located in the village of San Pietro Acquaeortus and in the castle of Trevinano. Even the current regional borders are similar to those between the old estates. Sharecropping was the contractual system that for centuries governed most of the relationships between owners and farmers in this area as well as in a large part of central Italy.

Of medieval origins, the institution of sharecropping was perfected in the eighteenth century, resisting with few changes until not many years ago. The contract was stipulated by the owner (commonly called master) with the head of the family (head of the family). The owner provided the house and the land (farm), the head of the family the work of himself and his family. All those who resided on the farm had to work there exclusively. The management address was up to the owner, expenses and revenues were divided in half, the farmers also had to take care of transporting the part of the product due to the owner on the farm premises. Each farm was organized to be as self-sufficient as possible, cows were raised, some of which had the fundamental function of working livestock, sheep that also gave milk for cheese, pigs that were grazed in the fields and woods. The sharecroppers could keep farm animals, but they had to guarantee some heads to the owner (obligations or gifts). All these animals provided manure for the fields where pastures and forage crops alternated with cereals, but also hemp to obtain fabric. In each farm there were vines and olive trees, often alternating in the rows which were, in any case, wide to allow the cultivation of the land.

Mechanization, which required less manpower but more investment, the new opportunities of the economic boom years, the lack of land reform, led many farmers to leave the farms well before the law that in 1982 transformed the last sharecropping contracts into rent .

The farmhouses

Along the path you come across several farmhouses: some have been renovated, while others, on the other hand, you can barely glimpse the ruins now submerged by vegetation. These farmhouses were the houses inhabited by sharecroppers of the estates belonging to the lords of Trevinano and San Pietro Acquaeortus.

The farmhouse was the center of life of the farm:

on the upper floor there was the large kitchen, commonly called the house, with the fireplace that was lit even in summer since there was no other system than the embers for cooking, and the table where the family gathered to eat. In winter, the house was the only room heated thanks to the fireplace, but also thanks to the breath and heat emanating from the cow beasts whose stable was located on the ground floor just below the house.

On the ground floor there were also the straw, next to the stable where the fodder rested, the cellar that served as a pantry and warehouse, the vat where grapes were pressed and fermented and the bread oven. Upstairs the bedrooms. In the healthiest points there were the granary and the caciaia where the cheese was kept.

Near the farmhouse there was the chicken coop and, a little further away, the sheep shed and the pig huts. The cellar was instead underground.

Finally, around the farmhouse there were the farmyard where the chickens roamed and the manure pit where the manure was piled up waiting to end up as fertilizer in the fields. Of course, none of the farmhouses we meet at the time had running water and, much less, electricity.

Today, even moving away towards the valley where the countryside is still cultivated, a few farmhouses are still inhabited by farmers. Many have become farm holidays or country residences. All the rooms have a residential use.

Where there were chickens that roamed the barnyard now there are usually the English lawn and the swimming pool