

THE SADNESS OF THE WOODS IS BRIGHT: DEFORESTATION AND CONSERVATION IN THE MIDDLE AGES

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Day by day they kept forcing the woodland to creep further up the hillside, surrendering the lower reaches to tillage. Over hill and plain they extended meadowland and cornland, reservoirs and water-courses and laughing vineyards, with the distinctive strip of blue-grey olives running between [...]. So the countryside assumed its present aspect of variegated beauty, gaily interspersed with luscious orchards and marked out by encircling hedges of luxuriant trees.

(Lucretius, *On the Nature of Things*, v,
1370-1378)

This was the order of human institution: first the forests, after that the huts, then the villages, next the cities, and finally the academies.

(Giambattista Vico, *The New Science*)

Classical literature pictures landscapes in the lights of the tradition of the open panorama mainly in gardening practices. Natural world is portrayed as for-

mal, well designed gardens, cultivated fields, and as a symbol or art of its own, as it occurs in Old English poetry, notably in *Beowulf*. Medieval writers view the landscape as “paradise earthly and heavenly”, “the enclosed garden” and the stage of season changes. The natural and allegorical gardens of medieval literature, fair and pure in an everlasting spring and their representation in art, existed through Renaissance and Baroque periods. Beauty only resided in the ordered and tamed scenery. Umberto Eco writes that “even at its most dreadful, nature appeared to the symbolical imagination to be a kind of alphabet through which God spoke to man...” (*Art and Beauty in the Middle Ages*, 67). Likewise, French historian of medieval Europe Marc Bloch (*Feudal Society*, 3) remarked that people of that period were necessarily “close to nature” in a Europe that was largely untamed forest and wilderness. Medieval natural world has been regarded as God’s *fait accompli*, as part of the Divine bequest.

Nonetheless, all the poetic descriptions of seasons and landscapes were far cry from the realness. Factual deforestation of Europe was well underway during medieval time. Middle Age and Renaissance

poets and dramatists pictured the deserts and mountains as ugly, treacherous and inhospitable areas; forests as shadowy, wild places often inhabited by evil spirits, demons and witches, bestial creatures, wild men and beasts. Dante in *Divine Comedy* refers to an essential Christian fear of the woodlands, motivated mainly by the superstitions spread by the Church about witches and sorcerers that lived therein. Robert Pogue Harrison, in *Forests: The Shadow of Civilization*, writes: “[...] we may remark that the opening of the *Divine Comedy* may well be the first occurrence in literature of a motif that will later become archetypal: fear of the forest” (82). They were not appreciated for their grandeur, only for what they could provide the people; they gave grazing to animals, they preserved game for hunting, supply wood and, last but not least, land for cropping. Folks attacked the woods with axe and spade and plough in order to make the landscape work for them. Fens, marshes very slowly, have been sized away from nature for husbandry. Far back in history of the Western thought nature has been often viewed as wilderness in the worst sense, full of danger and evil, lacking the beauty and forms of cultivated landscape. Roman poet and philosopher Titus Lucretius Carus (died c. 50 BC), in *De rerum natura* described the natural universe that is “greedily seized by mountains and the woodland haunts of wild beasts”, and “usurped by crags and desolate bogs and the sea that holds far asunder the shores of the lands”. He further wrote: “Almost two-thirds are withheld from mankind by torrid heat and perennial deposits of frost. The little that is left of cultivable soil, if the force of nature had its way, would be choked with briars, did not the force of man oppose it. It is man’s way, for the sake of life, to groan over the stout mattock and cleave the earth with down-pressed plough” (v, 226, 177). It reveals not just the belief in the power of human action, quite characteristic feature in the classical world, but the necessity to control nature in order to survive. Even in the seventeen century

forest was still regarded as “dreadful”, gloomy, wild depiction of barbarism and fear.

This vision is at odds with the ideas of Maimonides, one of the great philosophers of the Middle Ages, who in his *Guide for the Perplexed* responds to the commonly held notion that everything was created for the sake of humankind, suggesting instead that we should consider the whole creation and each creature as value in itself regardless of our benefits. He wrote:

[A]ll the existent individuals of the human species and, all the more, those of the other species are things of no value at all in comparison with the whole that exists and endures [...]. [One] should not make the mistake of thinking that [the whole of] what exists is in existence only for the sake of him as an individual [...] [nor should it] be believed that all the beings exist for the sake of the existence of man. On the contrary, all the other beings too have been intended for their own sakes and not for the sake of something else... (III: 12-13, 442, 452-453)

However, deforestation that has been the most significant factor of the environmental change during Hellenistic and Egyptian period, continued well into the Middle Ages. The trees and forests have been regarded as the most valuable benefits conferred by Nature upon mankind. Pliny wrote: “It was from the forest that man drew his first aliment, by the leaves of the trees was his cave rendered more habitable, and by their bark was his clothing supplied; even at this very day, there are nations that live under similar circumstances to these. Still more and more, then, must we be struck with wonder and admiration” (*Natural History*, XII Preface, 31.19) “[...] It is for the sake of their timber that Nature has created the other trees [...]. There are some trees that are altogether of a wild nature, while there are others, again, that are more civilized, such being the names by which man has thought fit to distinguish the trees. Indeed, these last, which by their fruits or some other benefi-

cial property, or else by the shade which they afford, show themselves the benefactors of man, are not inappropriately called «civilized» trees” (31.30, 53).

Although the forest played a most relevant role in the Middle Ages, essential in farming, as source of fuel, as pastureland, as a hunting grounds and religious life, it suffers the impressive impact of the need of fuel, building materials, timber for navigation, mining, and governmental land policy, according to Eratosthenes, geographer of the Hellenistic period. The effects of forest clearings on landscapes or climate already highlighted by botanist Theophrastus, were later mentioned by Pliny, then in Middle Ages by Albert the Great, and further into the history by many travellers after the discovery of Americas. The demand for fuel imposed by Roman industrial activity suggest that, at least in areas where woodland was sparse, it was likely to have been managed as a renewable resource. Some woodland management practices are described in Roman textual sources. Cato writing in the mid-second century BC, mentioned willow beds, coppice woods, orchards and “mast-wood”. The latter could be oak or beech woods, both of which provided nuts for feeding pigs. He also mentioned the planting of poplars (*Populus*) and elms as a source of leaf fodder for cattle and ship. References to coppice woods were also made by Columella who in the first century AD stated that the best woods for coppicing were oak and chestnut, chestnut being cut on a five-year cycle and the oak at seven years. He also described the planting of chestnut coppices (Meiggs, *Trees and Timber in the Ancient Mediterranean World*).

Later on, in the 12th century, the *Códice Calixtino* mentioned the Galician land that “it is rich in forests” and afterwards, scholar and traveller, Fernando de Colón (1488-1539), shows his amazement at the miles of oak and chestnut forests that envelop its villages (Ruiz Almansa, *La población de Galicia*, 35, 36, 39).

At the same time, during the Middle Ages, forests of mostly western and central Europe witnessed

a surge of economic activity that affected crucially its numerous resources. It is assumed that the forests of France, for example, were reduced from 30 million hectares to 13 million hectares between c. 800 and 1300 —and still a quarter of the country was covered. In Germany and central Europe, perhaps 70 per cent of the land was forested in AD 900 but only about 25 per cent remained by 1900. The essential reason was an extensive growth of European population between 650 and 1350, resulting in a vast spreading of settlements in the forests of central and Eastern Europe. “The agricultural revolution of the Middle Ages”, as Lynn White described all the intertwined processes of population growth and technological development, set off the disappearance of the vast tracts of woods by the end of the twelfth century. Canadian historian Norman Cantor who specialized in a medieval period, summarized the effects of late medieval and later deforestation:

Europeans had lived in the midst of vast forests throughout the earlier medieval centuries. After 1250 they became so skilled at deforestation that by 1500 AD they were running short of wood for heating and cooking. They were faced with a nutritional decline because of the elimination of the generous supply of wild game that had inhabited the now-disappearing forests, which throughout medieval times had provided the staple of their carnivorous high-protein diet. By 1500 Europe was on the edge of a fuel and nutritional disaster, [from] which it was saved in the sixteenth century only by the burning of soft coal and the cultivation of potatoes and maize. (*The Civilization of the Middle Ages*, 565)

In the same way, deforestation intensified processes of soil erosion and sediment transfer as well as alluviation, which coincided with the first phase of cooling during the Little Ice Age.

It also was during the high and late Middle Ages when the awareness that human activities cause undesirable consequences in the environment has finally

surfaced. And the forest clearing has become the central theme about which all the other anthropogenic alterations of the natural world evolved. “How should the King protect his lands?, [...] by making sure that villages or other places do not die away [...] and also by ensuring that trees, vineyards or any other thing man that lives on is not felled, burnt, or damaged in any way, not even out of spite” (Alfonso X, *Partidas* II, 11, 3). And the *Partidas* continue: “neither oxen nor cows nor other ploughing beasts’ may be pawned (neither the plough nor the serfs), the same as the «sacred things» and unlike the fruits of «cattle, trees and inheritances» (v, 13, 2, 3 y 4). In another set of laws (1252) we read: “Trees or vines, or vineyards are things which must be most protected because the fruit they yield is profitable to mankind and cause much pleasure and consolation when they are seen” (*Fueros municipales de Santiago y su tierra*, 378-379).

At the same time, the retreat of forests triggers off the social conflicts in regard to its use, increased aggressiveness of wild animals, inundations, and the tightening measures of forest protection. The 1351 Castilian Courts denounce that “five or six pines are brought down to make three or four torches which are worthless” and that “those living in counties rich in pinewoods and groves fell and burn them to sow and thus everything is destroyed”. The king’s response could not be harder and more indicative of the new scenario. He declared that “whoever felled or uprooted pines in the pinewoods or helm trees in the groves of local councils, as it is claimed, with intention of sowing must be killed for it and shall furthermore lose all his properties” (Valladolid Courts in 1351, petition n° 61; cit. Barros, “The Humanisation of Nature”). Later, in the fifteen century, as the rates of deforestation accelerate, Enrique IV, by request of Guipúzcoa councils, is forced to order that the plantation of oaks, walnuts, chestnuts, ashes and beeches be kept at sixteen feet of ploughed land (Barros, “The Humanisation of Nature”). It is worth to remember that already in the 13th century, Alfonso X,

the Wise of Castile who began to work on the code later called *Siete Partidas*, prohibited all uncontrolled fires, and punished with death those who burned the forests: “The king orders that fire must not be set to forests, and should anyone be caught doing it, he must be thrown into the fire, may he not be apprehended, all his possessions be taken”.¹ He also set up the Royal Hunting Place at la Rocina forest in Doñana that nowadays is one of the most important natural sides in Europe.

The climate of northwest Europe differs enormously from Mediterranean environment that nurtured classical culture. Therefore, after the collapse of Roman Empire, forest with its ties to town and country life has become the most significant feature of medieval period. According to W. Ruddiman, the most unequivocal evidence of early and extensive deforestation lies in a unique historical document —the *Domesday Book*. This survey of England, ordered by William the Conqueror, reported that 90 percent of lowland natural forest was cleared as of 1086 AD. Most of the remainder was to disappear in the next 250 years. Humans destroyed woods with their axes and by allowing animals to eat young trees, so that the old trees were not replaced when they died or were felled. Compared with the other information provided by the *Domesday Book*, the evidence of clearing might be exact, but it does show, as Darby noted, “that along the Welsh Marches, and in East Anglia and in Kent, woodland was being cleared for one purpose or another; and there is no reason to believe that the same tendencies were not at work all over England” (“The Clearing of the English Woodlands”, 71-72). Indeed, the great age of forest clearing extends from the fifth through the thirteen centuries.

Simultaneously, yet at much slower pace, arose the awareness of destruction. It can be found in local

¹ Whoever sets fire on a windy day near straw, wood or ripe grain is considered responsible and liable for the damage hence originated (*Partidas* VII, 15, 10).

charters, rules, and letters, in the body of rights, usages and customary laws. The *Domesday Book* records tilled lands “which have been wasted” and “all been converted into woodland”. In many other countries sections of the forest were protected for economic reasons (*afforestation*), and as hunting royal grounds. “That our *silva* and *foresta* be well guarded [...] says the thirty sixth article of *Capitulare de Villis* —one of Charlemagne’s decrees (Glacken, *Traces on the Rhodian shore*, 334). In the thirteen century a document issued by German king Henry the VII condemned cutting trees for agricultural purposes as calamity: “harm had come to him and to the city of the kingdom in the destruction of the forest of the kingdom and in transformation into cultivated land”.

Much of England was “forest” in more technical sense in the centuries following the Norman Conquest that is country set aside as royal game preserves and subject to special forest law. After the thirteen century forests attained more value, so woodland conservation and management made economic sense, and forests were ruthlessly protected against “wood stealers” (Roberts, *The Holocene*, 202). In 1257 Henry III suspended timber exploitation in many English forests “because of the destruction caused” (*Calendar of Close Rolls*). Regardless the various conservation ideas, the fact remains that during the medieval period monasteries have been responsible for very considerate changes in the “wild” landscape, the large-scale draining of marshes, and the clearance of woodland, the extension of sheep-farming on the chalk and limestone uplands. The monks cut down the wood, stubbed up and levelled into a plain, bushes gave place to barley, willows to wheat, withies to vines. Equally, massive use of charcoal on an industrial scale in Early Modern Europe was a new acceleration of the onslaught on western forests; Stuart England was so widely deforested that for ship timbers it depended on the Baltic trade and looked to the untapped forests of New England to supply the need.

Robin Hood, the typical English folk, whose story originates from medieval time, seemingly lived in “full merry”, safe, untamed and abundant Sherwood Forest. In literary imagination the greenwood is portrayed as wilderness, unpopulated except by outlaws.

In somer, when the shawes be shyne,
And leaves be large and long,
Hit is full mery in feyre foreste
To here the foulys song:
To se the dere draw to the dale,
And leve the hilles hee,
And shadow hem in the leves grene,
Under the grene-wode tre.

(*Robin Hood and the Monk*, Quiller-Couch,
ed., *The Oxford Book of Ballads*)

Yet, at that time, no forest in England was an impenetrable wilderness, except perhaps for its north corner, that matches the literary stereotype of the remoteness, wildness and lawlessness of the late medieval north. However, there is abundant contemporary evidence that northern England was none of these things. It is likely that Robin Hood and his merry men inhabited only an illusory forest in an imaginary world.

Further on, Renaissance is marked by growing conviction of human possibility to control and transform the landscape through reason and technology. Yet amidst this consciousness the belief that our activities negatively affect the natural world lives on. When Georgius Agricola (George Bauer) censures the idea that mining destroys nature he quotes the arguments of those who oppose it and sustain that mining devastates fields, damage the fertile land vineyards, and olive groves. “They also argue that that the woods and groves are cut down, for there is need of an endless amount of wood for timbers, machines, and the smelting of metals. And when the woods and groves are felled, then are exterminated

the beasts and birds, [...]. Further, once the ores are washed, the water which has been used poisons the brooks and streams, and either destroys the fish or drives them away" (Georgius Agricola, *De re metallica*, 7). Later on, the poet Abraham Cowley wrote: "Woods tall and reverend, from all time appear/ Inviolable, where no Mine is near" (Glacken, Clarence, *Traces on the Rhodian Shore*, 487).

In spite of the prevailing optimistic belief in human intellectual sagacity that brings about beneficial improvements of the environment, the opposite voices were getting through. In the seventeenth century the newly formed British Royal Society asked John Evelyn to report on the problem of forest policy and the shortage of timber. The resulting work "Sylva: or, A Discourse of Forest- Trees and the Propagation of Timber in His Majesty's Dominions" surveyed the destruction and its causes like tillage, industry and shipping. Following his findings Evelyn advocated duty and necessity of planting trees to restore what has been wasted or used. Sustaining his arguments with the authority of classics like Virgil, Theophrastus, Pliny and Columella, he denounced the "disproportionate spreading of tillage" and the inconsiderate human predisposition "to extirpate, demolish, and raze, as it were, all those many goodly woods and forests, which our more prudent ancestors left standing for the ornament and service of their country" (Evelyn, *Silva*, 1-3). He continued: "Truly, the waste and destruction of our woods has been so universal, that I conceive nothing less than an universal plantation of all sorts of trees will supply and well encounter the defect..." (3).

Evelyn's work has not been the first attempt to halt deforestation in England since the earliest conservation contributions go back to the seventh century (Darby, "The Clearing of the English Woodlands"). The Magna Charta (1215) contains two sections to the environment related problems (Alison, "The Earliest Traces of a Conservation Conscience", 72-78). The Forest Charter establishes reforestation pro-

grams in all royal forests and along all river banks (Alison, "The Earliest Traces", 74). Two centuries later, Henry VI (1422-1471) passed the law intended to remedy degradation of marshlands and the "Hurt that within short Time will happen" (Alison, "The Earliest Traces", 74). A document from his time, permits the cutting of underwood but "saving evermore, abyding (remaining) and standing still there, alle okes, almes, esshes, holyns and crabtrees without any felling or hewyng down, or cropping or twisting of theym" (Whitaker, *An History of Richmondshire*, 345-346).

However, in the following centuries the domestic and industrial demands took a heavy toll from the remaining woods (Darby, "The Clearings of the English Woodlands"). For quite a while, Evelyn's work positively influenced the reforestation process, and in 1758 the Royal society of Arts offered gold and silver medals for the "largest plantation of each kind of tree every year" (Darby, "The Clearings", 82). All that planting activity shared the lack of consideration for the native species, bringing about widespread use of new species or "rubbish" as William Cobbett described them. William Wordsworth in his Guide to the Lake District (1835) shared this opinion when he mentioned *ten thousand* larch trees *stuck in at once upon the side of the hill* and *platoons* of Scots fir, as poor surrogate for native vegetation.

Facing the urgent necessity to confront the abuse of water and forests, Luis XIV proclaimed in 1669 the French Forest Ordinance. It penalized forest destruction and regulated cutting. It prohibited grazing animals in "lands and heaths, or void and bare places on the borders of the woods and forests" (Glacken, *Traces on the Rhodian Shore*, 491-494). It also controlled the use and penalized the abuse of the forest floor. The Ordinance intended to repair the damage brought about by destructive use of natural resources and the waste of royal forests. It was also meant to provide for the future generations, since 'it is not enough to have re-established order and discipline,

if we do not by good and wise regulations see to it that the fruit of this shall be secured to posterity.' (Glacken, *Traces on the Rhodian Shore*, 492).

The strict forest and timber legislation in England and France during the seventeenth century has been inspired by the historical evidence of natural resources destruction and the growing awareness of the risk of human inflicted environmental changes. As James I remarked in 1610, "If woods be suffered to be felled, as daily they are, there will be none left" (Keith, *Man and the Natural World*, 198). The duty to reforest was written into many early customs, manorial regulations and local laws especially in England. The evidences of destructive effects of human action and regulations to remedy our reckless dealings with the natural world have been coming into sight ever since ancient civilizations. Evelyn's work dramatized the problem of disappearing woods by intense spreading of agriculture and grazing. However, our dealings with nature have been based on the optimistic view that human mind and technical skills could modify the environment at discretion. Preconceived views of nature and insufficient knowledge stayed in a way of foreseeing long-term consequences of environmental destruction. Heraclitus once wrote: "Eyes and ears are poor witnesses for men if their souls do not understand the language" (Kahn ed., *The Art and Thought of Heraclitus*, Fragment 107).

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