INTRODUCTION: TREES, WOODS, AND CHESTNUTS IN EARLY MEDIEVAL ITALY

In the early Middle Ages, trees were seldom just trees, simple clumps of cellulose and chlorophyll. People loaded them with meaning. A rare Latin saint's life, probably produced in the south Italian metropolis of Benevento, shows this double identity of trees as matter and construct clearly.

Somewhat unusually for early medieval hagiography, the *Life of Barbatus, the Beneventan Bishop* begins in the thick of things, bypassing the traditional preliminaries about the holy man's holy birth, upbringing, and rise to prominence. The anonymous hagiographer, who seems to have written late in the Carolingian era, launched his account with the decisive event in Barbatus' career, one that took place in 663 when Barbatus was already in his sixties, a very old man.[1] In fact, Barbatus' great deed constitutes virtually the whole composition, for the *Vita* says almost nothing about the life of Barbatus, either as a young man, or as bishop, *after* he had successfully turned the Beneventan Lombards from their lamentable pagan rituals. The moment of conversion instead deserved the full attention of writer and audience, and was described graphically, beginning with the "primitive rite of paganism" ("priscum gentilitatis ritum") that male Lombards practiced around Benevento in the mid seventh century. In the *Vita*, the "beastly" barbarians worshipped a beast, more exactly a viper, in unspecified ways. Near the city they also worshipped a "sacred tree" on designated holidays, in ways the

[1] *Vita Barbati* quotes Paul's *History of the Lombards* so presumably post-dates it. J. Martin, "A propos de la *Vita* de Barbatus," *Mélanges de l'Ecole française de Rome* 86 (1974), 137–64, dated the text to the late 800s. Its death scene, set in 682, says the saint was eighty, so the opening events occurred when he was about sixty. S. Gasparri, *La cultura tradizionale dei Longobardi* (Spoleto, 1983), 69–91 comments extensively and cites the bibliography.

author specified lavishly.[2] The *Vita*'s opening scene reveals how the tree cult worked: an animal's skin was hung from the tree's branches, then all present turned their backs on it and rode their horses hard away from the trunk, as if in a race. At a designated moment they swerved around and charged back at the skin-festooned tree. As they reached it the worshippers struck the suspended skin and tore small bits off it to eat "superstitiously."[3]

Such strange and (as far as I know) unparalleled exercises were "offerings" (*vota*) and to the hagiographer explained the Lombards' choice of a name for the place where the tree grew, Votum.[4] But if the tree's name was so deeply imprinted onto the hills of the southern Lombard world that two centuries after the ritual an erudite hagiographer needed to explain how a local church got its puzzling epithet (S. Maria de Voto), the tree itself proved much less solidly rooted. In the *Vita*'s narrative Barbatus exploited the panic caused in Benevento by a Byzantine siege of 663, led by the first Roman emperor seen in Italy since 476, to win over to orthodoxy the tree-worshipping, viper-loving unbelievers. As soon as the Emperor Constans II had obligingly marched his Byzantine troops off to Naples, Barbatus personally hacked down the "abominable tree" with an axe, then dug up the roots and piled up earth over the stump "so no-one could find even a trace of the tree" thereafter. Barbatus' victory over the tree was completed when, in the very next sentence of the *Vita*, the locals unanimously elected him bishop of Benevento.[5]

Barbatus' arboricide is an extraordinary episode in early medieval religious and arboreal history, interesting in itself for many reasons. For

[2] *Vita Barbati episcopi Beneventani*, ed. G. Waitz, in *Scriptores rerum Langobardicarum et Italicarum saec. VI–IX*, MGH, Scriptores rerum Langobardicarum (Hanover, 1878), 557–64 (Chapter 1, 557):

> sicut bestiali mente degebant, bestiae simulacro, quae vulgo vipera nominatur, flectebant colla … non longe a Beneventi menibus quasi sollempnem diem sacram colebant arborem, in qua suspendentes corium, cuncti qui adherant terga vertentes arbori celerius equitabant, calcaribus cruentantes equos, ut unus alteri possit prehire; atque in eodem cursu retroversis manibus corium iaculabant, iaculatoque particulam modicam ex eo comedendi superstitiose accipiebant.

[3] The animal might have been a goat: A. Pratesi, "Barbato," in *Dizionario biografico degli Italiani*, 76 vols., Vol. VI (Rome, 1961), 128–30. On the rising suspicion of goats in post-classical times: J. Voisenet, *Bêtes et hommes dans le monde médiévale* (Turnhout, 2000), 32.

[4] Waitz, the editor (557 n. 2) recorded another manuscript's version, wherein the site was called Votum "until today" because "of the offering of the tree." The irony of the hagiographer undermining the saint's attempt to erase the tree from earth was manifestly intended. Like any "damnatio memoriae," to be effective this one could not obliterate all memory of the object of oblivion. On Benevento's early churches: S. Carella, *Architecture religieuse haut-médiévale en Italie méridionale: Le diocèse de Bénévent* (Turnhout, 2011), 19–70.

[5] *Vita Barbati*, Chapter 7, 560: "Repente beatissimus Barbatus securem accipiens, Votum pergens, et suis manibus nefandam arborem … defossa humo a radicibus incidit, ac desuper terrae congeriem fecit, ut nec inditium ex ea quis valeat repperire. Recesso igitur hoste, uterque sexus et aetas ad beatissimi Barbati episcopatus electionem unanimiter confluxerunt …" After the election, Duke

my purposes here, however, what matters most is the power of the tree. To Barbatus, to his hagiographer, and to the audiences of the *Vita*, it was self-evident that a tree could have a magnetic pull on the souls of people, and that it could be central to the identities of unbelievers in the region of Benevento. The tree's excision demonstrated Barbatus' authority and was the climax in an (otherwise undocumented) seventh-century struggle between Roman Christianity and the "sacrilegious" ancestral paganism of the Lombards. Without the tree to support them and their rituals, age-old error rapidly receded and the Lombards became observant believers, willing to submit to a bishop. The tree, in other words, was literally and metaphorically the hub around which spun the spokes of local religion and community, enacted by the horse charges. For this reason it had to be utterly destroyed, stump and all.

Barbatus' holy tree did not stand alone in the religious landscape of early medieval Europe. The links between trees, communal identity, and pagan religiosity were well known to the first Christian emperors, who sought to staunch the flow of unbelief in the empire from the late fourth century by depriving temples of their financing, pagans of their right to worship in public, and sacred trees and groves of their frequenters: the *Theodosian Code* included a stipulation of 392 rendering it illegal, and punishable by the confiscation of one's house, to loiter in the sacred glens or deck the empire's holy trees with garlands.[6] If the prescriptions of the late Roman state were not enough, the private enterprise of zealous Christians supplemented them. St. Martin, perhaps the most successful western Christian holy man of late antiquity, famously made short work of a holy pine to which peasants near Tours had been showing excessive respect at around the time when the Theodosian law was drawn up.[7] Unlike Barbatus, Martin got the pagans to chop the tree down themselves, in hopes of its crushing him, and unlike Barbatus, did not worry at all about the stump. But the similarities remain: Barbatus' axe-wielding exertions in effect lifted a hitherto obscure south Italian holy man to parity with the West's most exalted saint, for chopping down trees meant a lot in the decline of the Roman empire.

In fact, if the *Life of Barbatus* was written in the 800s its readers would have had fresher examples of meaningful tree-cutting to mull over and compare with that of Barbatus in the 660s. Clerical anxieties about marginal locations in the landscape, such as those exhibited in the Beneventan biography, are also visible in Anglo-Saxon England, where non-Christian

Romuald offered the bishopric jurisdiction over the holy cave of St. Michael in the Gargano, a proper destination of religious mobility, unlike the tree. Asserting Beneventan rights in the Gargano probably motivated the author: Carella, *Architecture*, 218–19.

[6] *Codex Theodosianus* 16.10.12.2. See R. Trifone, *Storia del diritto forestale in Italia* (Florence, 1957), 4.

[7] Sulpicius Severus, *Vita Martini* 13.

tree cults persistently called into question the depth of Christian commitment in places removed from episcopal surveillance.[8] In the early eighth century the success of the English missionary Boniface in Hesse had a lot to do with his divinely mediated destruction of an oak tree sacred to the divinity of thunder and fertility, Jupiter or Thunor, thereby rendering the region fit for Christian habitation.[9] Shortly thereafter the monastic writers of the *Royal Frankish Annals* celebrated Charlemagne as destroyer of the Irminsul, a tree or tree trunk somewhere in Germany that some people supposed (erroneously, as it turned out) held up the heavens: this was a decisive event in the Frankish effort to subdue the Saxons and eradicate paganism in the Carolingian East.[10] A few decades after this, far beyond the furthest reaches of Carolingian rule, in the Crimea of the 860s, St. Cyril-Constantine too stamped out heathenism by eliminating its arboreal bulwark, according to a story that may well have circulated in Rome, an early center of devotion to the "apostles of the Slavs."[11] Even centuries after the fall of the Roman empire and the Christianization of its territories, people understood very well the religious potency of trees. It added poignancy to human interactions with them.[12]

In early medieval Italy, as in Carolingian Saxony, ninth-century Crimea, or late antique Gaul, trees were mighty things, far greater than the sum of their leaves, branches, and root stocks. The biography of Barbatus therefore offers a privileged peek into a landscape where trees were simultaneously physical, botanical facts, and cultural artifacts. Trees, and their associations in stands like groves, woods, and forests,[13] enjoyed a special form of double citizenship as things and ideas that other forms of vegetation – say prairie grasses or kelp beds – never quite attained. More than other plants, real trees

[8] C. Cusack, *The Sacred Tree: Ancient and Medieval Manifestations* (Newcastle upon Tyne, 2011), 121–46; A. Walsham, *The Reformation of the Landscape* (Oxford, 2011), 11, 22–25, 37–42. Walsham shows nicely how the landscape and the trees in it sustained the "economy of the sacred" in ancient Britain, as well as Reformation England.

[9] Willibald, *Vita santi Bonifatii*, ed. W. Levison, MGH, Scriptores rerum Germanicarum in usum scholarum 57 (Hannover, 1905), 1–58 (31).

[10] *Annales regni Francorum*, AD 772, supplemented by Rudolf of Fulda's *Translatio S. Alexandri* 2–3, ed. G. Pertz, *MGH* Scriptores 2 (Hanover, 1829), 673–81 (675–76). See Cusack, *The Sacred Tree*, 101–12. In Lombard Italy, eighth-century "rustici" had to be restrained from trees they called "holyfied" ("sanctivus") by fines: "Leges Liutprandi regis," ed. F. Blühme, in *Leges Langobardorum*, MGH, Leges 4 (Hanover, 1868), 96–182, Chapter 84 (142).

[11] *The Vita of Constantine and the Vita of Methodius*, trans. M. Kantor and R. White (Ann Arbor, 1976), Chapter 12, 41–43. Constantine personally hacked the tree down, but its dismemberment, uprooting, and burning were collective activities.

[12] C. Higounet, "Les forêts de l'Europe occidentale du Ve au XIe siècle," in *Agricoltura e mondo rurale in occidente nell'alto medioevo*, Settimane del CISAM 13 (1966), 343–98 (383), noted tree cults still worried eleventh-century clergymen. See also Gasparri, *La cultura*, 76–78.

[13] A distinction based on size, complexity, and density. A grove is smaller and likely more open, with fewer species; a wood is bigger, less open, more varied; a forest or wildwood is large and likely quite thick with diverse trees.

sprouted alter egos in people's consciousness and the two grew together, becoming indivisible to human observers. Early medieval writers noted particularly how trees spread up and down, uniting by their verticality different components of the world, and noted too deciduous trees' apparently endless ability to spring back to life each year and indeed to never stop growing, a consolation for human mortality and certainly a feature that set trees apart from "annual" vegetation.[14] Indeed, it helps to explain why Carolingian monks planted their cemeteries with trees.[15]

Such observations were by no means uniquely early medieval, or even European. Frazer's enormous *Golden Bough* catalogued a dizzying array of European, Asian, and American creeds built on the vegetative properties of trees.[16] Thus, if there may have been a special early medieval willingness to ascribe dangerous supernatural power to trees, thinking trees remarkable forms of life, thinking about and with trees, and classifying trees apart from other plants was normal. For instance, trees have seemed to many different people to join disparate realms of existence, aerial, terrestrial, and subterranean.[17] Furthermore, anthropological studies show how the most disparate communities assign meaning to trees' vitality, and Maurice Bloch has speculated that trees attract so much attention, and end up doing so much cultural work for people, because trees' tenacious attachment to living somehow reminds people of themselves.[18] Manifestly alive and subject to the same processes of birth, growth, maturity, and degeneration that humans undergo, trees offer powerful analogues to the human condition.

But if the life cycles of trees are rather human, trees are nevertheless quite different from people. Their durability, seasonality, and immobility set trees apart, as does the fact that trees continue to grow even in maturity. The resulting ambiguous situation of trees, simultaneously like and unlike people, is what makes them perfect symbolic tools.[19] Often enough, the self-reliance of trees and their capacity to outlive humans has contributed to their adoption as representations of human communities'

[14] D. Hooke, *Trees in Anglo-Saxon England* (Woodbridge, 2010), 5; S. Schama, *Landscape and Memory* (New York, 1995), 14–15; H. Birkhan, *Die Pflanzen im Mittelalter* (Vienna, 2012), 8–9.

[15] C. Frugoni, "Alberi in *paradiso voluptatis*," in *L'ambiente vegetale nell'alto medioevo*, Settimane del CISAM 37 (Spoleto, 1990), 725–62 (756).

[16] The general index to Frazer's classic contains three columns of entries on tree cults and beliefs. J. Frazer, *The Golden Bough*, 12 vols., Vol. II (London, 1913), Chapters 9 ("The Worship of Trees") and 20 ("The Worship of the Oak") are most pertinent, but Frazer delineated Christian accommodation to ancient arboreal beliefs in Chapter 10 ("Relics of Tree Worship in Modern Europe").

[17] Cusack, *The Sacred Tree*, 1–3, 9.

[18] L. Rival, "Trees, from Symbols of Life and Regeneration to Political Artefacts," in *The Social Life of Trees*, ed. L. Rival (Oxford, 1998), 2–3, 7–9; M. Bloch, "Why Trees, Too, Are Good to Think With," in Rival, *The Social Life of Trees*, 39–55 (40–44).

[19] Bloch, "Why Trees," 48–52. Birkham, *Die Pflanzen*, 9 compares trees' ceaseless growth to that of animal horns and human nails.

historical continuity, for people know their trees have been and will be around much longer than they will. Since trees stretch comfortingly between past, present, and future, perhaps especially where a community seeks to give concrete expression, in a specific place, to its relationship with time, trees can carry meaning.[20] That, after all, is what happened outside Benevento, where the "abominable tree" permitted Carolingian hagiographers to connect present with past inhabited space.

Dark Age men, then, and not just Barbatus and his hagiographer, assigned to trees a special ability to communicate meanings to people. Barbatus in particular made a brilliant career for himself by recognizing trees' liminal status, and by challenging the cultural might and physical presence of the Beneventan tree. But we should recall that such antagonistic relations with trees were only one of many ways early medieval people could interact with the taller plants, and in Christian culture some trees were highly praiseworthy and had positive roles to play in God's creation.[21] Either way, the point remains the same: in order to understand the early Middle Ages we must take seriously the arboreal landscape of that time, both as a physical reality and as an agent in early medieval imaginations.

SCALE AND MEANING IN THE WOODS

Trees and treed landscapes had peculiar cultural importance in the early Middle Ages, and have attracted historians' attention in consequence.[22] Very much related to this cultural evaluation of Europe's arboreal vegetation have been discussions of the actual prevalence of medieval woodlands, for their extent and their significance in European culture go together. In the case of Italy, divergent reconstructions of post-Roman woodland history actually seem to converge around the opinion that the Italian peninsula became more wooded after antiquity.

For in some analyses the waning of classical civilization coincided with irresponsible and even catastrophic mismanagement of woodland; this profligate behavior is held to have led to denuded hillsides, topsoil erosion, loss of agricultural productivity, excessive deposition in river

[20] Rival, "Trees," 17–19.

[21] Frugoni, "Alberi," 725–62, surveys early medieval Christian thinking on the trees of Eden. See also for later developments P. Dronke, "*Arbor caritatis*," in *Medieval Studies for J. A. W. Bennet*, ed. P. Heyworth (Oxford, 1981), 207–53.

[22] A benchmark of the scholarly acceptability of the topic is the Spoletan "Settimana di studio" about "the vegetative environment" organized in 1989. The resulting publication included seven major articles focused on early medieval trees, arboriculture, and forestry, and several others giving prominence to trees: Settimane del CISAM 37.

valleys, and outbreaks of deadly disease.[23] In other evaluations the end of Rome's hegemony corresponded to a frightful surge in the number of trees and the area they occupied, at the expense of human habitation.[24] Yet this is an apparent opposition only, for even the "catastrophic deforestation thesis" rests on the assumption that post-classical peoples' wanton destruction occurred because of a superabundance of trees and woods that allowed a wasteful, myopic mentality to develop.[25] In the end it seems fair to say that the idea of woodland increasing across Italy from the fifth century on enjoys a scholarly consensus.

This view may have some empirical grounding, but certainly it is an aspect of the trope that sees everywhere in the early Middle Ages a "return of nature," a version that holds on even as the naturalness of the early medieval wilderness comes into question (a topic to be addressed below). For instance, Jacques Le Goff's great *Civilization of the Medieval West* describes Europe in the wake of Rome's demise as cloaked by thick woods, very much seen as the corollary to barbarity, and effectively characterizes concurrent civilization as "the world of wood."[26] Half a century after that magisterial effort, the advance of forests, the retreat of arable fields, and the rise of Rome's barbarian successor states continue to appear as synchronous and related phenomena.[27] Indeed, with only slight exaggeration one could say that a favorite scholarly measure of the "transformation of the Roman world" during late antiquity is the relentless forward march of forest. Such a conceptualization held sway throughout the twentieth century. In Italy the magisterial writings of the academic geographer Arrigo Lorenzi set the tone at the end of World War I: his lectures and articles proved that the early medieval forest surged

[23] G. Marsh, *Man and Nature* (Seattle, 2003 [1864]), 7–13 and esp. Chapter 3 first articulated such views. See also J. Hughes, *Pan's Travail: Environmental Problems of the Ancient Greeks and Romans* (Baltimore, 1994), 73–90, 188–91; and J. McNeill, *The Mountains*, which applies the same idea (depopulation leads to ecological cataclysm) to the 1900s. C. Watkins and K. Kirby, "Historical Ecology and the European Woodland," in *The Ecological History of European Forests* (Wallingford, 1998), ix–xx (xi), astutely note historians' obsession with deforestation as opposed to forest management practices.

[24] Higounet, "Les forêts"; C. Wickham, "European Forests in the Early Middle Ages," in *L'ambiente vegetale nell'alto medioevo*, Settimane del CISAM 37 (Spoleto, 1990), 479–545; B. Andreolli and M. Montanari, eds., *Il bosco nel medioevo* (Bologna, 1988); A. Giardina, "Allevamento ed economia della selva in Italia meridionale: Trasformazioni e continuità," in *Società romana e produzione schiavistica*, 3 vols., ed. A. Giardina and A. Schiavone, Vol. 1 (Bari, 1981), 87–113 (106–09).

[25] A. Lorenzi, "L'uomo e le foreste," *Rivista geografica italiana* 25 (1918), 141–65, 213–42; 26 (1919), 47–57 (25: 238–39) gives a classic exposition of the "familiarity-breeds-contempt" theory. See also Trifone, *Storia del diritto*, iii–iv, 29; M. Montanari, *Campagne medievali: Strutture produttive, rapporti di lavoro, sistemi alimentari* (Turin, 1984), 16.

[26] *La civilisation de l'Occident médiéval* (Paris, 1964), 169 ("un grand manteau de forêts"), 258 ("le monde du bois"). Cf. R. Doehard, *Le haut moyen âge occidental* (Paris, 1971), 94–109.

[27] J. Devroey, *Economie rurale et société dans l'Europe franque (VIe–IXe siècles)*, Vol. 1 (Paris, 2003), 312 (but cf. 27). Hooke, *Trees*, 113–18, shows how Anglo-Saxon studies lately qualify the late ancient "return of nature" and forest.

forward across the Roman agricultural landscape from the third century, facilitated by barbarian settlers and their woodsy culture.[28] To Lorenzi, the most reliable allies of the barbarian hordes were arboreal.

As the biography of Barbatus already adumbrated, there are sound cultural reasons for the scholarly penchant to link afforestation and "the barbarian invasions." The Germanic people who settled inside the western empire's provinces from the fourth century onwards are thought to have been related to those the first-century Roman aristocrat Tacitus wrote about in his ethnographic polemic *Germania*. In Tacitus' treatise the northern barbarians are tightly bound both culturally and economically to trees and forests. Simon Schama has luminously illustrated this Tacitean symbiosis between barbarians from Germany and their woodland home, and how it became a fixture in early *and* fully modern texts, to the point that a first-century literary concoction seems to have inspired and motivated sixteenth-century patriotic diatribes, nineteenth-century scientific forestry, and twentieth-century combat operations.[29] Ironically, then, the *Germania*, a Roman text utterly ignored during the Middle Ages, gave a decisive nudge to Renaissance and later interpretations of the early medieval period as especially woodsy. It is by no means the only ingredient, but Tacitus' account of forest-based noble savagery has leavened conceptions of post-Roman landscapes and the people in them until today.

Ultimately, the early medieval forest in modern accounts is as loaded with meaning as Barbatus' tree in his *Vita*. The Dark Age forest signifies something more than just trees. To modern observers it tends to mean primitive, barbarous, perhaps even Germanic times.[30] The tradition is venerable and extends past Tacitus: in sedentary agrarian societies, like the Roman or modern ones, woods often imply economic underdevelopment and cultural backwardness, no matter what people actually did in those woods. Shady forests are an inscrutable opposite of open-sky agriculture and bright cultural productivity in a way that neither scrublands nor swamps or any other land form can quite equal.[31]

Thus the Roman man of letters Varro, a contemporary of Cicero, postulated that there had been (or could be) exactly three stages of human economic and cultural development, beginning with hunting (in forests); moving through herding (in forest clearings); and finally attaining the loftiest stage of human engagement with nature, agriculture (without forests).[32]

[28] Lorenzi, "L'uomo," 224, 48–52.
[29] Schema, *Landscape*, 83–116.
[30] For instance P. Dutton, *Charlemagne's Mustache* (New York, 2004), 44, who excellently deconstructs the cultural associations of animals, but not of trees.
[31] Watkins and Kirby, "Historical Ecology," xi.
[32] Varro, *De agri cultura* 2.3–5.

In Varro's teleological scheme, as in other ancient developmental sequences like the fifth book of Lucretius' *De rerum natura*, the first humans had consorted with trees and lived among them and from them. Then, as civilized practices took hold, so did arable agriculture, and trees subsided in consequence. At the very inception of the ancient literary tradition, Hesiod imagined the earliest people living from oak trees' bounty, something Roman authors such as Pliny the Elder readily accepted while noting that in more recent times no one ate acorns any more, save as a desperate measure when grain harvests failed.[33] Similarly, the Roman architectural writer Vitruvius suggested that huts of tree branches and nests of twigs, the first human habitations, had (rightly) given way to masonry constructions in the forward progress that led straight to the happy times of Augustus, whose subject Vitruvius was. Whether gastronomic, architectural, or economic, ancient culture consistently presented an emancipation from the forest and from trees as the great leap forward in human history.[34]

As Barbatus' adventures show, the ancient literary convention that consigned the woods to archaic times and considered them the locus of primitive ignorance lived on after antiquity. In the early 600s the encyclopedist bishop of Seville, Isidore, postulated that the first humans subsisted on woodland products, especially nuts, before discovering the advantages of agriculture and moving on, in an evolutionary narrative clearly based on classical Latin antecedents.[35] Later the Varronian tripartite division of early time into hunting, herding, and farming found numerous champions, including many who studied prehistory before the mid 1900s, though criteria for the subdivision of periods based on slightly different things (inert materials like stone or iron, for example) also became fashionable.[36] In all these accounts, the woods and wood-based economies always remained at the very beginning of reconstructions of the process that led to greater material plenty and intellectual sophistication.[37]

[33] Pliny the Elder, *Historia naturalis*, ed. J. André (Paris, 2003), 16.15.

[34] Vitruvius, *De architectura* 2.1.2–7. On forest primitivism, see T. Allsen, *The Royal Hunt in Eurasian History* (Philadelphia, 2006), 1–3; W. Logan, *Oak: The Frame of Civilization* (New York, 2005), 36–37. For context, see A. Lovejoy and G. Boas, *Primitivism and Related Ideas in Antiquity* (Baltimore, 1935), esp. Chapter 12.

[35] Isidore of Seville, *Etymologies* 17.7.26 in fact ascribes the notion to Virgil. See 17.7.28 for the claim that beech mast was early humans' preferred food; and G. Duchet-Suchaux, "Les noms des arbres," in *L'arbre: Histoire naturelle et symbolique de l'arbre, du bois et du fruit au Moyen Age* (Paris, 1993), 13–23 (21).

[36] D. Harris, "Domesticatory Relationships of People, Plants, and Animals," in *Redefining Nature*, eds. R. Ellen and K. Fukui (Oxford, 1996), 437–63 (440–46); G. Daniel, *The Origins and Growth of Archaeology* (Harmondsworth, 1967), 90–106. J. Radkau, *Wood: A History* (Cambridge, 2012), 14–18, points out that the Stone Age was actually another wood age, though prehistoric wooden implements have failed to survive as well as flints.

[37] Economic evolutions with three phases, the boskiest first, are imagined by M. Gadgil and R. Guha, *This Fissured Land: An Ecological History of India* (Berkeley, 1992), 34–37.

Most evolutionary schemes presume unlikely watertight periods following smoothly from each other without commingling their characteristics. Thus, any period when trees increased their physical and cultural presence could only be an anomaly, especially if it came *after* a period of intensified agricultural exploitation, like the Roman one. As a result, the early Middle Ages look like an interruption to European history's natural flow (forward), a throw-back to prehistoric conditions – in a word, a Dark Age. Save in an epochal cataclysm, a "sylvo-pastoral" economy like the early medieval one should not succeed an "agro-pastoral" one like the Roman. Any economy that relies heavily on or fails to reduce the incidence of woods is inferior to economies founded on sown crops and open fields. This hierarchy is also reflected in the cultures produced by each economy.[38]

This intellectual association of economic primitiveness, barbarians, and woodlands in ancient and medieval historiography is extremely solid. Even the revolutions in how history is written and how the "decline and fall of the Roman empire" is framed that occurred during the 1900s seem unable to topple it. The advent of abundant and precise archaeological data that probably did the most to change early medieval history in the late twentieth century likewise has not severed the ties between "Germanic" post-Roman societies, backward economies, and vast, thick forests, though it offers the best prospects for achieving this.

One curious but revealing dimension to this enduring association between underdevelopment and trees has been archaeologists' lively debates about post-Roman housing. The abandonment of the enormous and often luxurious villas of imperial or late Roman date that is a salient feature of sixth-century rural archaeology can indeed seem a clear marker of the decline and fall of the empire.[39] An empire whose capital the first emperor had reinvented made of bricks and marble, and whose most famous artifacts were all of masonry and clay, might rightly be pronounced dead when wooden constructions sprouted across its former provinces, and the majority of ceramic roof tiles or fired bricks in circulation were spoliated.[40] Indeed, in Italy, by the seventh century a lot of rural dwellings, and some urban ones too, seem to have been built exclusively

[38] R. Delort and F. Walter, *Histoire de l'environnement européen* (Paris, 2001), 192, suppose the shift from sylvo- to agro-pastoralism depended on demography.

[39] G. Brogiolo and A. Chavarría Arnau, *Aristocrazia e campagne nell'Occidente da Costantino a Carlomagno* (Florence, 2005), 34–7, 47–51.

[40] G. Brogiolo, "Nuove ricerche sulle campagne dell'Italia settentrionale tra tarda antichità e altomedioevo," in *Castrum 5: Archéologie des espaces agraires méditerranéens au Moyen Age*, ed. A. Bazzana (Madrid, 1999), 153–65 (158), equates wood use and "segnali di decadenza."