# INTRODUCTION: THINKING ABOUT MEDIEVAL EUROPEANS IN THEIR NATURAL WORLD

How much were medieval Italians themselves responsible for the food shortage that by late spring 1347 was affecting about half the population of Tuscany, for the onset that summer in Sicily and Genoa of an epidemic which would in a few years kill half or more of the European population, or for the buildings smashed and hundreds of deaths in Venice and further northeast in an earthquake of January 1348? Ought those events be related to unsurpassed flooding across central Europe in July 1342, and the crash of English grain yields to 40 per cent of normal in 1348–52?

Did the spread of an exotic animal, the rabbit, in thirteenth-century England and the Low Countries have anything to do with the simultaneous extirpation of native wild boar from Britain? And the arrival of an exotic fish, the common carp, in France at the very time that native salmon were vanishing from streams of coastal Normandy? Was any of this change to biodiversity connected to medieval classification of the beaver as a fish?

Why would a ninth-century abbot at the Carolingian royal abbey of Fulda in eastern Franconia and early fourteenth-century Cistercian monks at Lubiąż on the Oder river both assert that, more than a hundred years earlier, their respective blessed founders had established holy cloisters in a howling wilderness? The monks at Lubiąż kept chests full of charters from the 1170s–1190s which described the hamlets then on the site and commissioned the new abbey to care for those Christian souls. The soil beneath the very foundation stones of Fulda preserves remains of a royal hunting lodge and peasant huts.

Why, then, a half-millennium fiction of 'deserts' in damp and well-wooded central Europe?

What induced Londoners around 1300 to burn 'sea coal' despite its hateful stench but stop grumbling by century's end? That was not the outcome for folk at Troyes who around 1208 were cursing the stinking *merderon* ('shit hole') in a closed off urban arm of the Seine.

Why did King Offa II of Mercia (757–96) put what must have been hundreds of people to work digging a shallow ditch and mounding the earth beside it for more than a hundred kilometres parallel to his frontier with Welsh princes whose men could easily walk or ride over this 'dyke'? Did this activity bear any relationship to the construction in 1177 of the 400 metre Bazacle at Toulouse, which diverted the Garonne to drive a dozen mills – and put twice as many ship mills out of commission? Water from upland streams, channelled and controlled by complex techniques and local rules of Arab origin, greened thousands of hectares around Valencia year-round, offering consumers melons, sugar, even cotton, while other Mediterranean rivers fed the Tuscan Maremma and lagoons at the mouth of the Tiber, both commonly acknowledged as sources of debilitating or deadly *mal'aria*, the evil of the marsh. By the years around 1300 Dutch, Saxon, and East Anglian dwellers on drained land or marsh pastures along southern shores of the North Sea also knew to fear recurring fevers of the ague. An anonymous English poet wrote:

> A man may a while
> Nature begile
> By doctrine and lore
> And yet at the end
> Wil Nature home wend
> There she was before.[1]

Do such images belong to your vision of medieval Europe? Perhaps they should.

This book engages a different kind of medieval history. It takes a new look at information from the European experience between roughly 500 and 1500CE, some familiar to most

[1] C. Sisam and K. Sisam, eds., *The Oxford Book of Medieval English Verse* (Oxford: Clarendon Press, 1970), 554.

medievalists and much familiar to some, and reads it from a novel point of view, namely as evidence of relations between two dynamic entities, human society and the natural environment. This introduction begins to frame the Middle Ages with conceptual tools meant to help understand familiar medieval narratives in another way. History roots in time and place – establishing situations, telling stories, comparing stories, linking stories. Environmental history brings the natural world into the story as an agent and object of history. This is medieval history as if nature mattered.

Such is by no means the customary perspective and practice of traditional history, medieval or otherwise, which has been devoted to the evolution and interaction of humans and human cultures in time. After the modern historical discipline removed supernatural actors from its scholarship, only humans remained as its objects and agents. The non-human provided mere scenery and stage properties for the human story, whether conceived as an object of humane scholarship or of social science. Traditional historians consider human activities in both material and symbolic culture: acts of war or sexual congress; mechanical or artistic artefacts; ideas of kinship, justice, or the divine. They argue over the priority of material and ideological forces, but none denies structural linkages between, for instance, racism and slavery, misogyny and patriarchy, profit motives and class. All this comprises a cultural sphere of causation, where the interplay of human reason, emotions, goals, and actions operates with autonomy, determined by nothing outside that sphere.

Historical and interdisciplinary study and understanding of medieval Latin Christendom share the overarching modernist approach to this historic culture. Probably most medievalists try to approach it from within, using especially verbal artefacts, texts, to recapture and recapitulate the words, thoughts, and ideas of medieval people. What present-day anthropologists call an 'emic' perspective refers to the culturally specific participant's point of view, that is, how a medieval human agent perceived and conceived a course of action. The enterprise necessarily rests on that tiny share of the cultural acts performed by a small proportion of medieval people who committed to writing and other intentional elements of symbolic culture selected fragments of their lives, desires, expectations, and knowledge of themselves, their fellows, and their material

surroundings. Whatever lay outside their cultural awareness does not exist. The contrasting 'etic' approach takes an observer's point of view, remaining 'culturally neutral' with respect to the original event/actors, though not, of course, the observer's own culture, source of her categories. It asks of medieval texts and other remains questions that may have been far from the maker's conscious intent – e.g. racial stereotypes in a romance, tree species in a manuscript illumination – or even beyond his capability – e.g. performance theory. It calls upon such concepts as subaltern theory or a supply curve for labour, and exploits modern technologies – ultraviolet lights, dendrochronology, etc. – outside any medieval cultural competence or imagination to make medieval people, their works and experiences understandable in present-day terms.

Studied by these means the civilization of medieval Latin Christendom may be crudely typified by certain dominant cultural features, all essential to its character though not all unique to it. Formative was an often uncomfortable blend of older antique Mediterranean and northern barbarian traditions and practices, and then an increasingly self-conscious identification with Latin, i.e. Roman, Christianity. These variously provided paradigms for symbolic cultures, high and popular, and notably the key but sharply limited role of Latin literacy. Pre-eminent subsistence strategies rested more or less heavily on cultivation of cereal grains, but always included some elements of local and interregional exchange. Diverse and fragmented landholding and military elites, often joined by claimants to supernatural authority, contested for political power. Even before the end of the first millennium CE this decentred sociocultural community had established a broad territorial range across all three great regions of western Eurasia – Mediterranean, Atlantic maritime, and continental – joining Sicily to Scandinavia and the Carpathians to Iceland as never before. These peoples absorbed, imitated, conquered, or defied their closest neighbours for a millennium until around 1500 they burst forth on to the rest of the world. Taken collectively, such shared, though never uniform, historical attributes differentiated Latin Christendom from its sibling co-heirs to classical Mediterranean civilization, namely Byzantium and the *Dar al-Islam*, for all that they occasionally provide insightful comparisons. While a view from notably al-Andalus, Russia, or the eastern Mediterranean may occasionally appear below, those must be

secondary to the attempt to establish both commonalities and diversities across the Latin west.[2]

Among all those products of an autonomous, autopoetic cultural realm, human ideas have, of course, their own histories. One such idea distinguishes between humans and other things of *this* world, calling the latter 'nature', that which is not 'human', not 'culture'. A conceptual dichotomy between culture and nature is commonly thought characteristic of western modernity, but can also be traced in other settings, including, in some ways, medieval Christendom.

Modern thinking consigns to the realm of science this world apart from humans, an autonomous sphere of material things subject to its own causality. Some such 'laws of nature' are physical, like that Newton described as gravity or Einstein's relation of energy to matter. Chemical laws govern the combustion of carbon to $CO_2$ and the hydrocarbon cellulose to $CO_2$ and water, both with the emission of heat. Atmospheric chemistry explains how water, nitrogen, and carbon cycle between solid, liquid, and gaseous states. Processes of plate tectonics shape and shake continents. Geographers study spatial relationships in terms of regions at various scales. Living nature comprises individual organisms and genetically distinctive sets called species, with physiological and behavioural attributes evolving over time in patterned ways. Every organism lives by exchanging energy and

[2] A case can be made to include Byzantium (Balkans, Aegean, Asia Minor?) in an environmental history of medieval Europe, but it fails to compel. The relationship of both Byzantium and the societies of classical Islam to the Christian west is best acknowledged as one of cognates, co-heirs of classical Mediterranean culture, each going in its own direction. By analogy, the history of China does not encompass Korea or Japan, nor is Canada's story that of the United States. Developing that thesis is not, of course, the task of this book. That certain kinds of Byzantine texts document and derive from the same classical experience and mentality as some later western ones is true, though more reflective of a broader Mediterranean culture and physical environment (which would therefore include southwest Asia and North Africa) than anything especially connected to a transcultural 'medieval' millennium.

Just as diagnostic are the quite separate scholarly communities who for the past century have pursued the histories of medieval western Christendom and medieval Byzantium. Though both rightly acknowledge and study intercultural contacts and engagements between medieval Latin and Greek Christians, the two scholarly groupings otherwise deal with different and distinctive bodies of sources to explore different kinds of questions. Even had Byzantinists treated most of the issues that this book will explore, which is by no means evident, their findings, as those on contemporary Baghdad, would have to be handled as comparative rather than integral topics.

materials with its environment, a process called metabolism. The ecological principle recognizes the interconnectedness of living and non-living things through various relationships (predator–prey, competition), processes (photosynthesis, decomposition), and cycles (water, carbon, nitrogen). Each set of closely interacting living and non-living things is called an ecosystem; at larger scale, less closely linked ecosystems form a landscape, ecological counterpart to the geographers' region. Metabolic analysis traces flows of matter and energy between and through organisms and communities at all scales, and helps identify questions of sustainability, asking how long those inputs and effluents can continue to flow without harming the recipient and its surroundings.

Since René Descartes and the Scientific Revolution of the seventeenth and eighteenth centuries this 'natural sphere of causation' is recognized as autonomous, meaning it is not evidently controlled by supernatural entities or forces nor by human wishes, emotions, mental constructions, historical time, or cultural preferences. It is, however, understandable to humans *only* through cultural representations, namely ways humans are able to think and communicate about it, from the basics of language . . . to science itself.

How then is nature to be connected to culture and placed into time as a protagonist in a human story? How is environmental history possible? For traditional history the question is moot. Its nature is but a backdrop to human affairs, having no or insignificant actual effects on them. On the other hand, a cultural tradition reaching from the ancient Greeks to twentieth-century geopolitics and such commentators as Jared Diamond holds natural forces responsible for human history itself. Environmental determinism asserts that natural conditions actually dominate, with climate especially argued to shape human physiology, psychology, and social organization. Greco-Roman ideas that tropical and temperate zones produced peoples of different temperaments were also known in the Middle Ages; later writers proposed that the need to manage floodwaters compelled formation of elaborate bureaucratic states. Early twentieth-century racist reasoning and climatic 'explanations' for European rule over 'lesser races' put geographical and other environmental determinisms in a bad odour not yet dissipated. This position is neither inherently adhered to nor promoted by environmental historians, simply because past experience has too often disproved its denial of human agency.

Most recent intellectual fashion has been the reverse stance, in the not unrelated positions of cultural determinism and constructivism. The former simply treats cultural stereotypes – Greek sailors, American ingenuity, the superiority of capitalism – or cultural processes – strategies of court politics, the radicalization of revolutions – as sufficient causes for changing material conditions. In scholarly terms it adheres to pioneering sociologist Emile Durkheim's injunction that social phenomena have social explanations. The latter, notably twentieth-century, paradigm argues that all humans can know, use, or encounter is necessarily and simply a cultural construct. Nature, science, mythology, and everything purportedly known outside human consciousness is but an artefact of that consciousness. The non-cultural is unknowable and thus without meaning in human history. At most, one could trace the evolution of human ideas about the non-human but never really test these against any external reality. Constructivism has real importance for environmental history, for historians, like other modern environmental thinkers, must acknowledge the power of culture in shaping human perceptions and human actions in the past as in the present. But in its extreme this antidote to environmental determinism is antithetical to environmental history (and any other engagement with non-human phenomena). It asserts as impossible what is, in fact, done by ordinary people, historians, and even medievalists all the time. But all three of these approaches continue to treat nature and culture as the two distinct and separate entities graphically represented in Figure 0.1.

Another frame of reference is needed to consider how humans actually operate with regard to the world of nature and thus how historical scholarship can explore, identify, compare, and begin to

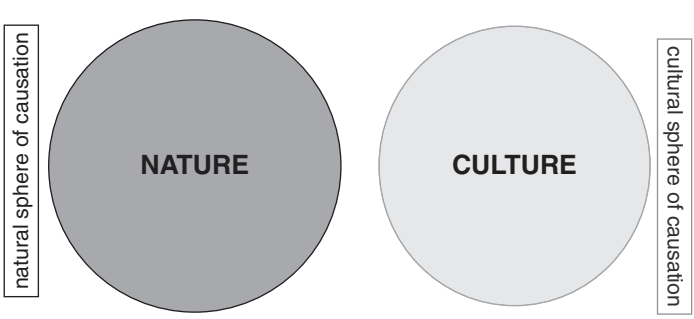


Figure 0.1 Humans and nature: traditional separation

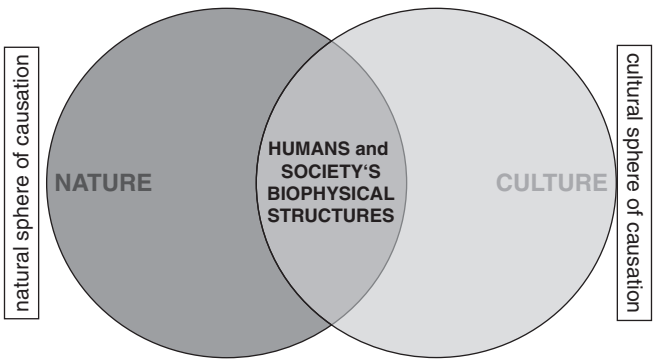


Figure 0.2 Humans and nature: an interaction model: society as hybrid

explain what individuals and groups have there experienced and done in the immediate and the more distant past. Such a tool or heuristic model was developed in discourse on present-day environmental relations by the school of social ecology in Vienna. It subsumes simpler, more limited, and more ambiguous ideas offered by some American environmental historians during the 1980s. What is hereafter referred to as the interaction model acknowledges the reality, autonomy, and *inter*relationship of both nature and culture (Figure 0.2). It establishes human society, human artefacts, indeed even human bodies, as *hybrids* of the symbolic and the material, for human organisms and material cultures necessarily exist simultaneously in both the cultural and the natural spheres. Humans and their biophysical structures, while inherently cultural in quality, are unavoidably subject to the natural realm and its laws, whether humans are aware of them or not. Material culture is conjoined with symbolic culture while at the same time its objects, living and non-living, participate in flows of energy and materials with the natural environment. Individuals and whole societies thus have metabolisms (Figure 0.3) and cease to exist if those cannot be maintained.

Of course, humans not only interact with the natural sphere, they consciously seek to use elements of it for their cultural purposes and in so doing, they modify it, consciously or not. The model dubs this process 'colonization' of a natural ecosystem, imagining an ancient or medieval peasant (Latin *colonus*) turning a natural savannah or woodland into a cultivated field. In a colonized ecosystem, selected natural processes are guided to operate for human ends set, it is vital to

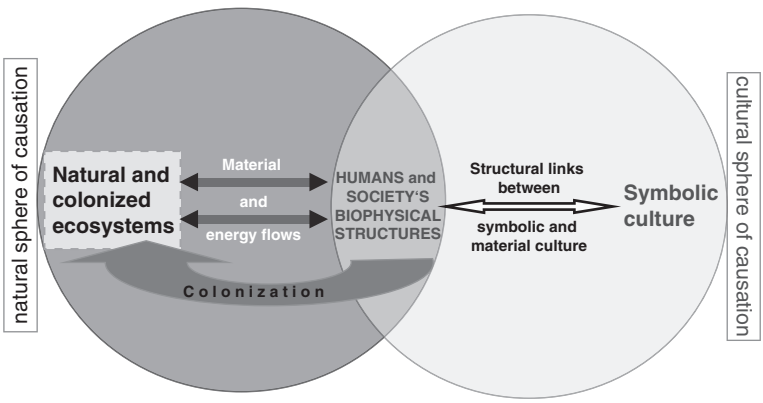


Figure 0.3 Humans and nature: biophysical structures as ecosystem compartments linked to symbolic culture

emphasize, by culture itself. Colonization, however, never completely replaces natural with anthropogenic and controlled processes, so it can have *un*intended as well as planned consequences. Other human interventions may themselves be wholly unconscious but no less transformative, as when infected Roman soldiers carried malaria into the Rhine delta.

Seen another way (Figure 0.4), material nature, living and non-living, and human communications (symbolic culture) join in an inter*active* and reciprocal relationship mediated by human material life. As already remarked, humans experience elements of the natural

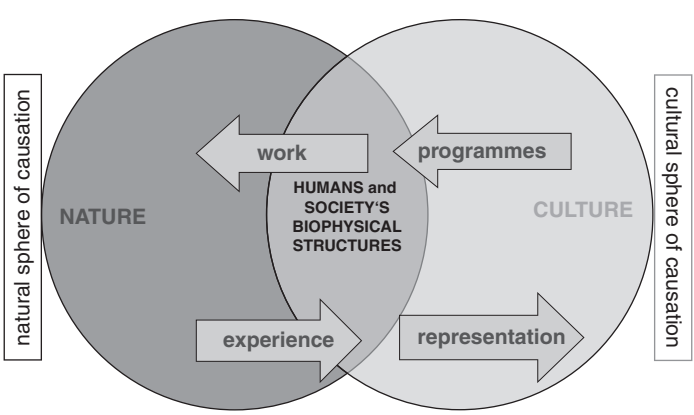


Figure 0.4 Humans and nature: connecting experience, thought, and action

world directly but can grasp it only through cultural representation, mainly in the form of language. Once absorbed into the cultural sphere, this information is there subject to its autonomous actions and may become a part of a new cultural construct, a programme to do something of a material quality. The programme itself has, however, no environmental impact, no effect on the natural sphere, until human work there modifies the existing flows of energy and materials. Work and its outcomes then become subject to autonomous natural causation, which may itself alter subsequent human experience of nature. As culture responds – in no a priori way – to represented experience and as natural processes are themselves affected by human work, reciprocal change rolls through the interactive system. The process is recursive; causes turn into effects which turn into further causes. Over time culture and nature co-adapt; they engage in co-evolution.

The interaction model encompasses the dynamic attributes of both nature and human culture and helps pinpoint the kinds of relationships arising in their conjunction. It imparts a temporal dimension to the particular operations of cultural and natural processes while preserving the autonomy, indeed the mutual indeterminacy, of both causal spheres. As a heuristic device the model provides a means of organizing the evidence of the past to pose and answer relational questions about the interplay of humans and their environment without predetermining those answers.

The most recent thinking about the interaction model is aware of criticism that it reifies what are indeed cultural constructs, culture and nature, and thus situates their interplay in timeless and undifferentiated space. Hence we move beyond the heuristic to acknowledge that the generalized interaction in fact occurs in specific times and places where (at least theoretically) identifiable human individuals and groups with particular cultural programmes (intentions) and practices (skills, techniques, routines) worked at and thus changed together with particular places possessed of their own natural attributes. Hybridity and co-adaptation thus come in observable and explicable form as 'socio-natural sites', small or large, where people operate *in* the natural sphere and give those sites a hybrid quality. At the small end of a scale the ground located between the Morzyna stream and a wooded outlier of the Sudety mountains in Silesia, where a late twelfth-century peasant named Gląb 'first cleared that place which is now [about 1268] called the Great Meadow or in Polish *Wiela*