In Andrew Light and Jonathan M. Smith, eds., *Philosophy and Geography III: Philosophies of Place*. Lanham, MD: Roman and Littlefield, 1998. Pages 285-296.

Down to Earth: Persons in Place in Natural History

Holmes Rolston III

The Storied Place

Earth is a storied place. On other planets, so far as we know, there is little story, although they too have their astronomical records—events in their physics, chemistries, geomorphologies, meteorologies. Earth adds biology and natural history; there is a cumulative historical evolution, coded in genes, lived out in each new generation, with novel mutants, varied genotypes becoming new phenotypes, and producing new chapters in the history. Genes remember, research, and recompound discoveries and the storied achievements, the values achieved, rise, over several billion years, to spectacular levels of attainment and power. Past achievements are recapitulated in each present generation, with variations; and these results get tested in that generation and then folded into the future, resetting the initial conditions with new possibility spaces for development.

Beyond natural history, Earth adds humans in their cultures, persons in their biographies, and now the story is stored in cumulative transmissible cultures, lived out in each present generation, as persons choose their careers and have their adventures, form their nations and ideologies, and write new chapters in the story. Persons in their developing cultures are even more historical than the plants and animals in their evolutionary natural histories. The pace of change and the possibilities of innovation are accelerated by several orders of magnitude.

Earth is the only place we know in which any living thing has a home territory. The logic of life is both biography and geography. The etymology of "bio-graphy" is to graph a life; the etymology of "geo-graphy" is to graph that life on Earth. "Biology" is the logic of life, but there is no logic of life that is not historical; and, in that sense, the idea of "graphing,"

285

of drawing out a world line, biography, is more historical, better catching the logic of biology. Life is not a timeless syllogism; human life has to be distributed on Earth. Biology requires geography, graphing a world line, and biology plus geography yields history. Life is always taking a journey through time and place.

Here we want to put persons in their places, in cultural history and, even more, in natural history. This emphasis is not because the latter is more important, but because it has been more neglected. Man is, Aristotle said, the political animal, the animal that builds a city. Yes, but humans are first and always earthlings too. We remain territorial animals. In finding our place in the built environment, we have tended to get displaced from our natural environment. We ought to live in storied residence on landscapes. The logic of that home, the ecology, is finally narrative, and the human career is not a disembodied reason but a person organic in history. Character always takes narrative form; history is required to form character. The only history we humans know is as flesh and blood moves through time and space. So we cannot know *who* we are; we cannot know *what* is going on, until we know *where* life is taking place. Behind ethics is *ethos*, in the Greek, an accustomed mode of habitation.

Natural History

Nature generates; that is the root meaning of "nature," "to give birth." On Earth, nature launches life, located in cells, always embodied in individuals who are embedded in ecologies, and these ecologies undergo evolutionary history. Storied residence does not begin with humans. Prehuman nature is already historical. At long ranges, evolutionary ecosystems have been spinning stories on Earth that are never twice the same. Only in a short-range perception is there seasonal recurrence, recycling, homeostasis, dependable patterns, repeated order. Words such as "homeostasis," "conservation," "preservation," "stability," or even "species" and "ecosystem" are only penultimate in a metaphysics and an ethics of nature, although they are the words with which environmental philosophy was launched. The ultimate word is "history."

Humans awaken to their historical subjectivity in an already historically objective world. The genome is a historical genetic set, though without historical awareness. Plants and animals are historical beings objectively, although they do not know this subjectively. They do not know their own larger stories. Some animals have memories, precursors of historical consciousness. But animals make no considered reflection on the historical character of their own natures, much less of nature, or culture. Humans are the only species that can become historians, or biologists, or geographers, who can reflect over the history of life and its distribution over places over times. Humans have the opportunity to decipher natural history, as well as to remember their own cultural heritages.

The story of applied science has been one of learning to remake the world in human interests, to use it resourcefully; but the story of pure science has been one of discovering the nature of nature, learning the natural history of sources we inherit. Early science thought this nature to be lawlike and repetitive, but recent science has learned the evolutionary Earth history. And life is still arriving. Earth is not so much a syllogism with premises and conclusions as a text to be interpreted. Like the books in our libraries, the landscapes are to be read, palimpsets of the past. Deep time and deep history lie behind and around us. Biological science has cleverly detected much of the past; it reads the story out of the historically produced landscapes, as well as the records left in the biomolecular genetic coding. Bioscience understands what is going on at present in terms of that past.

But bioscience can present little theoretical argument explaining this history—little logic (tracking causes) by which there came to be a primeval Earth, Precambrian protozoans, Cambrian trilobites, Triassic dinosaurs, Eocene mammals, Pliocene primates, and Pleistocene *Homo sapiens*. No theory exists, with initial conditions, from which these events follow as conclusions. And bioscience can predict little of future natural history. To the contrary, evolutionary theory neither predicts outcomes nor, looking back after the outcomes are known, retrodicts why this course of events occurred rather than thousands of others equally consistent with the theory.

Whatever their repetitions, each locality, each ecosystem is unique. No two waterfalls, mountains, beaches, bays, creeks, or maple trees are identical. Sometimes the differences are trivial and, even when notable, we may want to abstract out covering laws or general trends. Sometimes we think that the idiographic elements, punctuating the nomothetic elements, are noise in the system. But they are not really noise, they are news, good news—because this historical and topographic variation elevates nature into a territory for storied residence.

Likewise, passing from science to ethics, philosophy can present no argument why these stories ought to have taken place. The best that I can give you is good stories, and hope that you can accept them for that. We may even come to love the epic, and prefer narrative over argument, over some theory by which natural history would follow as an inevitable conclusion, or even a statistically probable one. In that sense, neither science nor philosophy can present an argument that either necessitates or justifies the existence of each (or any!) of the five million species with which we coinhabit Earth. But we can begin to sketch nesting sets of marvelous tales. There is no logic with which to defend the existence of elephants or lotus flowers, squids or lemurs; but each enriches Earth's story. That alone is enough to justify their existence,

Persons in Cultural History

Natural history is necessary but not sufficient for cultural history; in nonhuman nature there are no persons. Persons live in cultural history, in which our humanity is constituted. Unlike coyotes or bats, humans are not just what they are by nature; they come into the world by nature quite unfinished and become what they become by culture. Being human is more than biochemistry, physiology, or ecology. Humans superimpose cultures on the wild nature out of which they once emerged. There is no greater drama than this long struggle (late in the evolutionary story) of the climb to humanity. If ever visitors from space were to file a report about Earth, volume one might cover the geological and biological phenomena, volume two the anthropological and sociological events.

Cultural history brings radical innovations. Information in wild nature travels intergenerationally on genes; information in culture travels neurally as persons are educated into transmissible cultures. The higher animals can learn limited behaviors from parents and conspecifics (as when birds, genetically disposed to migrate, imprint specific routes by following the flock). Still, animals do not form cumulative transmissible cultures. In nature, the coping skills are coded on chromosomes. In animals these may be expressed in the learning experiences of the phenotype. Offspring may model behavior after parents. But there are no longstanding and accumulating educational traditions, deliberately teaching the future generations. In culture, the skills are coded in craftsman's traditions, religious rituals, or technology manuals. Information acquired during an organism's lifetime is not transmitted genetically; the essence of culture is acquired information transmitted to the next generation.

Information transfer in culture can be several orders of magnitude faster and overleap genetic lines. A typical couple in the modern world may have only two or three children, who inherit their genetic information. But those children are educated by learning from dozens of friends and teachers, by reading hundreds of books, even, if they take a higher education, using libraries with tens of thousands of books, written by authors to whom they are genetically quite unrelated, who may have been dead for centuries. The children learn from newspapers and television programs with information coming from all over the world.

A human being develops typically in some one of ten thousand cultures, inheriting a heritage that is historically conditioned, perpetuated by language, conventionally established, using symbols with locally effective meanings. Cultures exchange ideas; sometimes people are reared at the crossroads of cultures; well-educated persons choose and criticize their cultures. Animals are what they are genetically, instinctively, environmentally, with few or no options in what they shall be at all, even if they do make some limited choices. They do not choose their careers, nor do they evaluate and espouse worldviews. Humans have myriads of lifestyle options, evidenced by their cultures; and each human makes daily decisions that affect his or her character.

Natural selection pressures are relaxed in culture; humans help each other out compassionately with charity; they insist on human rights. They study medicine to cure their diseases. The determinants of animal and plant behavior are never anthropological, political, economic, technological, scientific, philosophical, ethical, or religious. Animals do not hold elections and plan their environmental affairs; they do not make bulldozers to cut down tropical rainforests. They do not fund development projects through the World Bank, or contribute to funds to save the whales. They do not teach their religion to their children. They do not read or write articles wondering about their sense of place.

Humans evolved out of nature, and that can confuse people into saying that humans are just natural, since their origins were natural. But that is to fall into a "nothing but" fallacy (the genetic fallacy), which confuses what a thing now essentially is with what its historical origins once were. This fallacy cannot take emergence seriously. We are animals, but with culture, and that gives us an exodus from mere nature. Humans are not like beasts immersed in a niche. In a sense modern humans have no ordinary ecological niche at ail, The average bite of food eaten in the United States has travelled over 1,200 miles, for instance. The energy warming one's home may be from coal, and from sunshine hundreds of millions of years ago, or from nuclear power, splitting atoms fused in ancient stars.

We could say that culture is the human niche, provided that we realize that the architectures of wild nature and of human culture are different. We face a dialectical truth; the thesis is nature, the antithesis is culture, and the synthesis is culture situated in nature, the two forming a home, a *domicile* (Greek: *oikos*, the root of ecology). That is our home territory.

With culture now, as before with nature, I cannot give a scientific argument explaining how humans arrived, some logic by which the Earth story eventuates in *Homo sapiens*. No theory exists from which we follow as conclusions. And, passing again to ethics, I can give no argument why humans ought to be here. But I can invite you to appreciate the story that lies in, with, and under the Earth we inhabit, to enrich the story by telling it. Perhaps you may even come to prefer that role to a lesser one by which humans are empirically necessary as outcomes of a determined process, or statistically probable as outcomes of stochastic process.

The mission of historians is to tell these stories of peoples on their landscapes. That will be volume two in the Earth story. But humans are also the only species who can tell the natural history, volume one. A narrative role might make the story, and the human role in it, seem meaningful, despite the lack of sufficient logical premises or theory with which to reach the human presence as a conclusion.

Persons in Natural History

Animals are wholly absorbed into their niches, but humans can stand apart from the world and consider themselves in relation to it. Humans are, in this sense, eccentric to the world. Humans are only part of the world in biological and ecological senses, but they are the only part of the world that can orient themselves with respect to a critical theory of it. Humans can begin to comprehend what comprehends them; in this lies their paradox and responsibility. They have a distinct metaphysical status because only they can do metaphysics. The metaphysics humans do may lead them to experiences of unity with nature, to responsible care for other species, but such unity paradoxically puts humans beyond the rest of nature, where nothing else is capable of such philosophical experience and ethical caring. When humans assert the value of the global Earth and its creatures they exceed the animal scope of value. Thus the human capacity for a transcending overview of the whole imposes strange duties.

Humans had relatively little biological role in naturally evolving ecosystems, nor have they today such roles, in the sense that were they subtracted from ancient African savannas or present Appalachian forests, those ecosystems would not be negatively affected. They are not some capstone species, pivotal in the ecosystems they inhabit. Humans are not important as predators or prey; they play little role in food chains or in regulating life cycles. They are a late add-on to the system; and, when they come, modify and disrupt their landscapes though they may, they hardly have an adapted fit analogously to the other species. Still, humans have a kind of eminence.

Humans reach vast ranges of valuational experience unshared with the animals. If I am hiking with my dog and come to an overlook, we may both pause and enjoy the rest, but I can look at the scenery. He can look, but not at the view. Perhaps he smells what escapes my detection. But the human considers the canine perception, although not undergoing it, enjoys the exercise, rest, and also the aesthetic experience, all in the midst of a worldview that sets a context of explanation for events in the view. The animal has only its own horizon; the human can have multiple horizons, even a global horizon. In that sense, animals have a habitat; but humans have a world. The human has only a limited understanding of what is going on, but this is less limited than that of the dog and that establishes an advanced value richness.

Humans should not "look down on" the "lower" orders of life, but humans alone can "look out over" or "look out for" other orders of life. They try to see where and who humans are, and comprehensively what others are. They have increasingly seen more of what there is to see, through the unfolding of art, literature, philosophy, natural history, science. In this looking out, humans are the form of life in which valuational capacities are most (but not exclusively) developed. This is advanced capacity based on accident of birth. Humans drew human genes; monkeys got monkey genes. But this is also a kind of superiority based on evolutionary achievement for which humans have to be grateful. It is no mark of intelligence or morality to refuse a value endowment.

Humans ought to be moral overseers. Humans have oversight; they are worldviewers—today more than they have ever been before. Mind forms an intelligible view of the whole and defends the stories of life in all their forms. Interhuman ethics has spent the last two millennia waking up to human dignity. As we turn to a new millennium, environmental ethics invites awakening to the greater story of which humans are a consummate part. From this, morality follows as a corollary—more than before. This takes humans past *resource* use to *residence* and constrains their policy, economics, science, technology. Such dwelling takes us past questions of management of places we own to moral questions about well-placed goodness in communities we inhabit, both biotic and cultural.

Humans can get "let in on" more value than any other kind of life. They can share the values of others and in this way be altruists. Animals have the capacity to see only from their niche; they have mere immanence. Humans can have a view from no niche, transcendence in immanence. Skeptics and relativists may say that humans just see from another niche, and it is certainly true that when humans appraise soil or timber as resources, they see from within their niche. But humans also see other niches and the ecosystems that sustain niches; they study warblers or see Earth from space. Humans are, if we may play on words, spectacular because they emerge to see the spectacle they are in. Humans ought to be spirit incarnate in place.

These cultural and moral options introduce the possibility of going astray, of making mistakes, of falling into tragedy. Humans make their own history, beyond biology, but this is not always to praise humans and belittle beasts. Humans have a superiority of opportunity, capacities unattained in animal life. Alas, however, the human capacity is forever unattained, brokenly attained, Much of the history that humans have made is sordid enough. There are good moments, noble achievements; but all too often humans stand condemned because they could and ought to have made for themselves better history than they did. If humans were biologically constrained in their history, if they could not do otherwise by nature, then they ought not be so censured. But humans are the beasts made to image God and fallen into sin—so the classical monotheist view of ourselves put it.

That sin is pride, and here we can enlarge the insight of the classical theologians. Traditional, anthropocentric ethics has tried to make humans the sole loci of value, transcending the otherwise valueless world. But this stunts humanity because it does not know genuine human transcendence—a transcending overview caring for the others. Humans, with their intrinsic worth, which features moral agency, double back on the world out of which they have emerged. Humans use their excellent rationality as a survival tool for defending the human form of life; they build culture, for better or for worse. But rationality, conscience, and emotions can do more than give integrity, excellence, self-esteem, and satisfaction, the various "virtues" we seek in our personal lives. These gifts ought to lead to a further transcendence that defends life in all its forms, to a stewardship over creation.

The Home Planet

This is the home planet. Views of Earth from space have given us an emerging vision of Earth and the place of human life on it. Leaving home, we discover how precious this Earth place is. The distance lends enchantment, brings us home again. The distance helps us to get real. We get put in our place. A virtually unanimous experience of the hundred or more astronauts, from many countries and cultures, is the awe experienced at the first sight of the whole Earth—its beauty, fertility, smallness in the abyss of space, light and warmth under the sun in surrounding darkness. The astronauts are earthstruck.

They are struck not only with the beauty and fertility of this, their home place, but with its fragility. The late-coming, moral species, *Homo sapiens*, has still more lately gained startling powers for the rebuilding and modification, including the degradation, of this home territory. Perhaps the four most critical issues that humans currently face are peace, population, development, and environment. Earth is the only planet with an ecology, the only planet that is a home; and, on Earth, home to several million species, humans are the only species of moral agents. Ethics has been almost entirely interhuman ethics, persons finding a way to relate

morally to other persons. But ethics too is now troubled, anxious about the troubled planet.

We worried throughout most of this century, the first century of great world wars, that humans would destroy themselves in interhuman conflict. Fortunately, that fear has subsided. Unfortunately, it is rapidly being replaced by a new one. The worry for the next century is that humans may destroy their planet and themselves with it. We are turning a millennium. The challenge of the next millennium is to contain those cultures within the carrying capacity of the larger community of life in our biosphere. To continue the development pace of the last century for another millennium will produce sure disaster. If we humans are true to our species epithet, "the wise species" needs an Earth ethics, one that discovers a global sense of obligation to this whole inhabited planet.

We need to lift our horizons from living politically to living ecologically. Once the mark of an educated person could be summed up as civitas, the privileges, rights, responsibilities of citizenship. People ought to be good citizens, productive in their communities, leaders in business, the professions, government, church, education. That appropriated, and appropriately transmitted and developed, one's historical cultural lineage. But the mark of an educated person is today something more. It is not enough to be a good "citizen." It is not enough even to be "international" because neither of those terms have enough "nature" or "earthiness" in them. "Citizen" is only half the truth; the other half is that we are residents" dwelling on landscapes. We are natives on Earth. Our responsibility to Earth might be thought the most remote of our responsibilities; it seems so grandiose and vague beside our concrete responsibilities to our children or next door neighbors. But not so: the other way round, it is the most fundamental, the most comprehensive of our responsibilities. We can hardly be responsible to anything more cosmic—unless perhaps to the divine Ground of Being.

An ethics about dirt? That is sometimes taken to be the ultimate *reductio ad absurdum* in environmental ethics. Put like that, we have to agree. A clod of dirt, just some earth (spelled with the lower case "e") has little or no intrinsic value, nor do we have duties to it. But when we go from earth to Earth, from dirt to the prolific planetary system of which it is part, perspectives change. Earth is Mother Earth, the womb out of which we come and which we never really leave. Dealing with an acre or two of real estate, perhaps even with hundreds or thousands of acres, we can think that this earth belongs to us. But on the global scale, Earth is not something we own. Earth does not belong to us; rather we belong to it. We belong on it. The question is not of property, but of community. The vision of human life we ought to seek is not that of maximum exploitation of Earth as a big property resource; it is that of valued residence in a created community of life. In that sense, an Earth ethics is not the *reductio ad absurdum* of silly and peripheral concern about squirrels and flowers, extrapolated to rocks and dirt. To the contrary, it is an urgent world vision. It is ultimate concern about our home territory.

When we say that Earth is *valuable* in a humanistic perspective, we mean that it is a resource for people who are *able* to *value* it instrumentally in myriads of ways. Earth is so valuable that humans have a right to an environment with integrity. But when we say that Earth is *valuable* in an ecological perspective, we mean that Earth is a place *able* to produce *value*, and has long been doing so as an evolutionary ecosystem. A late though remarkable product of the place-process is humans, who are also valuable—of value in an advanced way. When humans come, they find Earth often *valuable*, able to satisfy preferences, *able* to produce *valued experiences*. The subjective value events are a subset—perhaps a capstone subset but still a superposed subset—of the larger, objective production and support of natural values. Our responsibility is to find our role both benefiting from and conserving this community of life. Earth is indeed a storied place.

Home Places

Creating a global ethic, and epic, of place may seem to require too advanced an appreciation of natural history, too much scientific education, skills well past the capacities of most of Earth's residents. Only a minority of humans have had, or can have, such a global overview; most persons in their built environments live most of the time with little sense of evolutionary time, hardly even with a sense of ecological time over the decades of succession and change on landscapes. Most persons are not world travelers, not cosmopolitan citizens. Can we bring the sense of global residence, needed on planetary scales, also into focus at native range? What is the logic of residence in a more local territory?

Even though we think globally, we have to live locally. Residence in a local environment senses the recurrent universals particularly displayed in that place—the seasons, the soil, the wind, the rain, the sun, the biological powers regenerating the landscape, the native fauna and flora, the proportions of time and place. One enjoys these perennial givens exemplified in local areas. A person in his or her biography—as much as a scientist collecting herbarium specimens or peering through a microscope—is a detection device for catching something of the richness and integrity of what is taking place on the landscape he or she moves through. In this sense, every person can and ought to live geographically, optimizing one's experience of place.

An environmental philosophy does not want merely to abstract out laws and universals, if such there are, from all this drama of life, formulating some set of duties applicable across the whole. True, an environmental ethics demands a theory of the whole, an overview of Earth, but not a unity that destroys plurality. We also want an ethic colored by the agent's own history, cultural identification, personal experiences, and choices. The moral point of view must belong to a proper-named person who lives in a particular place. An ethic has to be instantiated in individuals, who live biographies, each with their local geography. Here, finally, intensely, intimately, we want to continue the logic of storied residence.

Ethics must be written in theory with universal intent, but the theory must permit and require ethics to be lived in practice in the first person singular. The logic of the home, the ecology, is finally narrative, and human life will not be a disembodied reason but a person organic in history in some particular time and place. In dialectic with what was claimed before, now we specify an ideal of humans inseparably entwined with particular times and places. If a holistic ethic is really to incorporate the whole story, it must systematically embed itself in historical eventfulness.

No two human careers are identical because over historical time cultures change and because genetic sets, choices, circumstances, and contingencies differ. Endlessly singular human subjects confront an endlessly singular environment. The practical, applied character of environmental ethics will have to recognize this singularity if it is to do justice to the form of the world and of human life in it. These story lines are not simply found; they must also be constructed. Humans want a storied residence in nature where the passage of time integrates past, present, and future in a meaningful career. This does not make nature mere instrument in a human story, any more than it makes the fellow persons in our drama merely tools. Rather, we have reached the richest possible concept of life in community, where all the actors contribute to storied residence.

Complementing now the global oversight considered earlier, we seek a local view, living participant stories in time and place. We must complement transcendence with immanence. Humans are not to be free from their environment but to be free in their environment. An environmental ethic needs roots in locality and in specific appreciation of natural kinds— not always rooted in a single place, but moving through particular regions and tracks of nature so as to make a narrative career. Life will include its adventures in natural history. Our role is to live out a space time, place time ethic, interpreting our landscapes and choosing our loves within those landscapes. *We* endorse the world with our signatures. This is, ultimately, what the evolutionary epic has been about, now consummated in environmental ethics, an adventure in the love of life and in increasing freedom in one's environment, entwined in biotic community.

Living Stories in Place

An ethic in the sense we are developing it is a creative act, not simply the discovery and following of rules and duties. It is writing an appropriate part of an ongoing story. In this dimension, your career is one of environmental interpretation. Life has, and ought to have, other dimensions: a family ethic, a business ethic, a community ethic; but the moral life is not complete without a sensitive approach to one's place—to the fauna, the flora, the geomorphology surrounding one's life. A person's role is to enrich his or her environment by appreciating it. A person's role is to be a moral geographer. Persons are consciousness *in place;* they always have a location. Persons are place become conscious of itself. In that sense, biography that is lived as historical geography is the only possible argument for life.

Note

This is an *apologia;* I am taking up a view of the world, and inviting others to share it. The style and format embody the argument, as existential as it is academic. I am searching for a sense of place. An ethic must be lived; humans are persons incarnate in the world; they are who they are where they are. The challenge in environmental philosophy, and the opportunity in relating philosophy to geography, is to get persons intelligently both naturalized and socialized. Only then will we realize the distinctive human genius, the promise and the power of the human spirit on Earth.