Afterword

In 2009, Carolyn Merchant took advantage of a trip to Paris to visit Pierre Hadot. A philosopher and philologist, as well as a specialist on Ancient Greece (his studies on the wisdom of Antiquity and philosophy as spiritual exercise greatly inspired Michel Foucault’s work on care of the self), he was very interested in Carolyn’s work, with whom he had kept up a correspondence. In his history of the idea of nature, The Veil of Isis, he quotes The Death of Nature on numerous occasions. The two had never met in person, however. The meeting took place one Sunday in July, in the villa in the southwestern suburbs of Paris where Pierre Hadot and his wife Ilsetraut lived. I accompanied Carolyn, and we spent the afternoon in the large garden that our hosts had designed, which was glistening with flowers and foliage. They talked about everything that interested them: personal anecdotes; past and future works; a common passion for philosophy, science, and intellectual history; and a shared concern to link thought and action. Around the idea of nature and its history, what brought them together was not only the common subject matter, but also the method.

In The Veil of Isis, Pierre Hadot takes as the guiding thread of his study the aphorism of Heraclitus, “Nature loves to hide.” He follows the range of interpretations of that aphorism through the pictorial formulations which are given to it, including that of Isis’s veil. He thus makes the metaphor the privileged vector that allows us to “detect the evolution, through the ages, of spiritual attitudes and visions of the world.”2 A metaphor—that of nature as woman—also guides Carolyn Merchant in studying the change in visions of the world that marks the emergence of the Scientific Revolution and the beginnings of capitalism in the sixteenth and seventeenth centuries. We only understand the importance and scope of the cultural change which, with modernity, installs the mechanistic conception of the universe in place of the organic vision of the cosmos that had been dominant until then if we measure to what extent this change suppressed people’s relationships with nature in addition to their social relationships—especially through the metaphor of the Earth as a woman. When images are included in the history of science, we can grasp the extent to which this cultural transformation—inseparable as it is from social, economic and political changes, but also ecological changes—takes place within a complex and violent history.

All these images, those of feminine allegories of nature, of nudity—always feminine—, of the truth, or of the world conceived as a clock, can be seen as traditional stereotypes that are used without too much thought being given to them. Yet they orient action just as much as they orient thought. Indeed, Pierre Hadot explains, they have “imposed themselves for centuries on successive generations as a sort of program to be carried out, a task to be accomplished, an attitude to be adopted, even if, through the ages, the meanings that are given to these maxims, these images, these metaphors, undergo profound modifications. These ideas, these images, these symbols can inspire works of art, poems, philosophical discourses, or the practice of everyday life.”3

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By linking, through images, women to nature, the metaphors studied by Carolyn Merchant are not only descriptive, but also point to what can be done. From Antiquity to the Renaissance, the Earth was seen as a great living entity, or, more precisely, as a nourishing mother who carried life within her; even minerals were considered living products which grew within the Earth’s belly and which regenerated there. Strong moral constraints were associated with this positive image of a benevolent mother: one does not stab one’s mother, one does not pierce her entrails to extract gold from them, one does not mutilate her body.4

When the infinite and homogeneous universe of the Scientific Revolution succeeded the closed world, Mother Earth’s protective cocoon came apart and the restrictive constraints fell: nature was offered to human domination without any limits. This was because a new active metaphor, that of the machine, had appeared. When Descartes asserts, in his *Principles of Philosophy*, that he recognizes “no difference between the machines that craftsmen make and the various bodies that nature alone composes,”5 the identification posited therein between the artificial and the natural can be read both ways, with very different results. When he declares, a little further on, that “things which are artificial are also natural,”6 he is stating a common-sense truth: our artefacts do not escape the physical laws of the matter of which they are made. But Descartes’s assertion also means that nature is arranged like a machine, which is much less self-evident. Mechanics is no longer merely the science of objects made by man, as was the case in Antiquity and in the Middle Ages, but also that of the laws of natural movements, which finds in human objects a heuristic model. With human-made objects and instruments multiplying ever since the Renaissance—wind and water mills, lifting instruments or traction tools, pumps, but also telescopes and microscopes7—the machine now becomes the reference point of a knowledge that is no longer content with contemplating the world, but rather aims for power over nature. The machine is indeed the model of a knowledge which only has value through the power which it authorizes. With the decline of the organic vision, it is not only the case that the restrictive constraints it imposed have now been lifted, but also that a new ethic of domination is being put in place. Mechanism reorders the world here—the natural world just as much as the social one. Thus, Carolyn Merchant explains, “The mechanical framework with its associated values of power and control sanctioned the management of both nature and society.”8

Women are caught in this new ordering. This is because the association between women and nature survives the disappearance of the organic model. When nature, deprived of life, becomes simple matter, malleable and transformable at will, women, too, are reduced to passivity and offered up to male domination. This was not a painless process. In order for mechanism to succeed organicism, it was necessary to purge the world of its animism, violently. The trials which came down on witches, in sixteenth- and seventeenth-century Europe, mark the criminalization of the mode of action specific to an organic vision of the cosmos: magic. Witches were not poor women reduced to using the only means at their disposal to keep themselves alive; they were beings to be destroyed. Witches were associated with all the negative values—malefic power, ugliness, sterility, and lechery (they had no children, but they fornicated with the devil)—

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4 Cf. p. 40.
6 Ibid.
8 Cf. p. 343.
to say nothing of their favorite companions, black cats, which people continued to burn or slaughter a long time after the witches themselves had disappeared on pyres: with them, it is indeed the ancient world of magic, of the soul immanent to a nature that is alive through and through, which is being put to death. Witches are accused of believing, or of representing belief, in a world we no longer want. If “the death of nature” can be judged to be metaphorical, the death of women condemned as witches was very real indeed.

The glorious figure of the Neoplatonic magus, a central one in the organic cosmos of Antiquity, of which the witch was the hideous caricature, escaped the slaughter, however. He found an heir in the new high priest of knowledge that Francis Bacon installed in his scientific institution, Salomon’s House in The New Atlantis, where, to go along with a government composed of scholars, scientific administration replaces politics. Francis Bacon plays a strategic role in Carolyn Merchant’s book, and, indeed, it was because Pierre Hadot had been struck by the same aspects of Bacon’s character that he and Carolyn came into contact and started up a correspondence. Taking up the idea, already present in Antiquity, that judicial procedure can serve as a model for the investigation of the secrets of nature, Bacon uses, for this purpose, the vocabulary of violence and even of torture: “The secrets of nature are revealed under the constraint of experiments, rather than when they follow their natural course,” Pierre Hadot notes. Sexual metaphors are added to this, as Carolyn Merchant has observed: one can rape nature to wrest the truth from her, just as one violates a woman. At the crossroads of judicial interrogation and sexual domination, there is the cruel repression of witches, subjected to the inquisition and the practice of torture to force them to reveal their secrets. Bacon, to whom these practices serve as a model for the search for natural truths, was very familiar with the witch hunt that was being carried out in Europe; and together with King James I, who made him his chancellor, he was one of the architects, following the Continental model, behind the hardening of the penal policy vis-à-vis witches in England.

The image of Bacon, inventor of the inductive method, champion of the sciences, pioneer of an empirical approach, whom d’Alembert in his Preliminary Discourse of the Encyclopédie turns into the hero of the Enlightenment, takes a hit when we discover the other side of the coin, with regard to women as well as nature. And, with the critique of Bacon, as Carolyn Merchant notes in her Preface from 2020, “the postmodern deconstruction of Enlightenment optimism and progress” is also mobilized. By proclaiming in the Novum Organum, with some emphasis, that the ambition “to renew and enlarge the power and empire of mankind over the universe […] is both more sound and more noble” than all others, Bacon was making a double promise. That of bringing, thanks to the domination of nature founded “on the arts and the sciences,” an abundance and a power which would restore to humans access to an Eden which they had been deprived of by the Fall and which could even make them eternal. And that of peace as well, because, by taking Jean Bodin’s counsel a step further—namely, to empty out the dissensions internal to Salomon’s House by exporting them to an enemy outside the borders—he was

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12 Cf. p. 21.
transferring the human ambition of conquest to external nature, thereby purging humanity of its murderous quarrels.

The promises were immense. They were only very partially kept, or not at all. Undoubtedly, Bacon’s project of obtaining useful results through techniques follows on from natural magic and those who had written on these questions, and many of the inventions he details in The New Atlantis had already been envisioned. But while magicians reserved for themselves alone the exclusive profit from the secrets hidden by nature, Bacon makes all of mankind the beneficiary of the application of sciences, whose access is open to everyone. In fact, as Carolyn Merchant recalls, the beneficiaries were reduced to those whom a historian has named, in all ingenuousness, “the bourgeois conquerors.” Conquerors of the markets, that is to say also of nature and of the men and women subjected by these conquerors: “nature, women, people of color, and salaried workers” share the same status of “natural and human resources offered to the modern global system.”

As for the knowledge that the Enlightenment promises, its development makes use of exclusion and condemnation to paint traditional knowledge as irrational, obscurantist, and ineffective, if not harmful, and this is especially true of the traditional knowledge of women, whose practices and know-how are devalued or condemned. Particularly representative of this exclusion from tradition in the name of the new rationality is the battle that took place, between midwives and surgeons, around forceps, instruments invented by men and whose adoption led to the exclusion of midwives in childbirth for the benefit of surgeons. Harvey, the discoverer of blood circulation, sided with the surgeons, and, as Carolyn Merchant notes, “in spite of obvious lacunae in the state of obstetrical knowledge,” his writings were widely praised by medical historians as those of a genius capable of teaching “the profoundest physicians and the most ignorant midwives” at one and the same time. Forceps have remained the symbol of a violent and mutilating intervention: a manifestation of force much more than a promise of life.

But the most deceptive of all these promises was that of a malleable and usable nature offered to our grasp. We have developed this technical power that Bacon promised us well beyond what he could have ever imagined. However, because, in the mechanistic vision of the world, our knowledge of nature is reduced to knowledge of what we can have control over, it has always remained partial. Our objects and our technical networks, these “artificial things which are also natural,” lead their lives in nature without us, with consequences which often turn out to be much more harmful than the beneficial effects that we expected. Because they are part of natural processes that we are only aware of when we pay special attention to them, our artefacts, once introduced into nature, have unforeseen effects which are beyond our control and which may turn against us. The economy of promises inaugurated by Bacon is a fool’s march.

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This raises the question of the possible exit from this mechanistic modernity, in two directions which, as she also notes in her Preface from 2020, Carolyn Merchant’s book invites us to research: that of ecofeminism, and that of an environmental ethic.\textsuperscript{17}

Because she was one of the first to center her study on the link between women and nature, in terms of how they are seen but also how they are treated, Carolyn Merchant is considered one of the pioneers of ecofeminism.\textsuperscript{18} In her subsequent works, and notably in \textit{Earthcare: Women and the Environment}, she has studied the various forms that this convergence of women’s struggles and ecological struggles has taken, particularly in the United States,\textsuperscript{19} at the center of which we find what Julia Cook calls “the basic ecofeminist postulate according to which the oppression of women and the oppression of nature are the interwoven manifestations of the same oppressive cultural framework.”\textsuperscript{20} Oppressed together, women and nature can only free themselves together, but in what nature, and with what type of association between women and nature?

One of the achievements of \textit{The Death of Nature} is establishing that there is never an ethically neutral relationship to nature, contrary to what defenders of modern dualism claim, who, setting humans apart from nature, only see in nature a mechanical structure, deprived of sensitivity. Here again, those metaphors are revealing which, crossing the alleged separation between humans and nature, convey emotions that we generally apply to humans: to consider torturing nature just as we torture witches is not to view nature as neutral material. Affirming this supposed neutrality is a form of denial. It is said that Malebranche, while friends were visiting him in his monastery at the Oratory, violently kicked a pregnant dog who was lying there; and, when his visitors were upset, he told them that the dog’s cries were just noises, no different from those a drum makes when hit. Taking up that anecdote, Merleau-Ponty comments: “We enjoy giving rise to a phenomenon of life, and we deny that this phenomenon reflects an authentic phenomenon, whereas it only interests us to the extent that it is the imitation of life. In this way, Malebranche would never have beaten a stone as he once beat his dog, saying that it was not suffering.”\textsuperscript{21}

What new ethics can we develop with a nature which, this time, will not be systematically devalued or minimized? Do women have a special place there? Around what images, what symbols, what myths can this ethic be built? By making the metaphor a vector of meaning in \textit{The Death of Nature}, Carolyn Merchant has clearly identified the lesson, one which she takes up in \textit{Earthcare: Women and the Environment}: “Ethics in the form of description, symbol, religion, and myth help to mediate between humans and their world.”\textsuperscript{22}

The violent images (torture, inquisition, sexual assaults) which accelerate the change of visions of the world, such as those which coalesce around the new image of the machine (passivity,

\begin{footnotes}
\item \textsuperscript{17} Cf. p. 21.
\item \textsuperscript{18} An article by Carolyn Merchant, “Exploiting the Belly of the Earth,” which summarizes two chapters from \textit{The Death of Nature}, appears in the anthology of ecofeminist texts edited by Émilie Hache, \textit{Reclaim}, Éditions Cambourakis, 2016, pp. 129-158.
\item \textsuperscript{19} Carolyn Merchant, \textit{Earthcare}, op cit.
\item \textsuperscript{20} Julia Cook, \textit{Reclaim}, op cit, p. 287.
\item \textsuperscript{22} Carolyn Merchant, \textit{Earthcare}, op cit, p. 145.
\end{footnotes}
malleability), express the subordination and exploitation of women just as they do that of nature. These are images that we want to be rid of. Why maintain the link between women and nature if it subjects them to a common domination? But the image around which organicism is expressed, that of Mother Earth, is, on the contrary, a positive and valorizing image: here, nature is seen as a strong, active, and protective woman.

It therefore seems that, given the importance and the negative consequences of the cultural change by which mechanism has eclipsed organicism, the only way to restore the situation is to reverse the movement and, one way or another, to return to ancient organicism. All the more so since, if the history of mechanism is a Western history, the organicism which preceded it was much more widespread in the traditional societies of other continents and persists there to this day. Do we not have here the indication of what was and could once again be a positive alliance between women and nature, ensuring the freedom of the former by respecting the latter? This is indeed what is indicated in the recognition of the rights of Pacha Mama in different countries of South America, and, even more so, in the adoption of the myth of Gaia. This goddess, who comes from before the advent of a Pantheon dominated by Zeus and brought in by Ionian invaders, was discovered by an American scholar, Charlene Spretnak, during a seminar on pre-Hellenic mythologies, and she made Gaia one of the symbols of ecofeminist spirituality. Gaia was then adopted by James Lovelock and Lynn Margulis to name the scientific hypothesis which sees in the Earth a living, self-regulating organism—and doesn’t that make Gaia, by Carolyn Merchant’s own admission, “a compelling metaphor for a new understanding of and reverence for life on earth”?23

It is not merely a question of adopting a global myth, but one of restoring to nature, at all levels, the life which mechanism deprived her of. On several occasions in The Death of Nature, Carolyn Merchant recalls that ecology, as a philosophy of nature, finds its roots in the organicism of the Renaissance, and that it is on this ground of a philosophy of life, with Thoreau, Emerson, or Humboldt, that ecology as a science was able to emerge.24 Which is not to say that ecology is completely impermeable to the mechanistic vision. However triumphant mechanistic philosophy has been since the seventeenth century, a number of philosophers (such as the Cambridge Platonists Henry More and Ralph Cudworth) did not resign themselves to abandoning the more organicist natural philosophy altogether (and that of Plato in Timaeus, in particular), and from it they derived an ethic not of the domination of nature, but of its wise stewardship. Carolyn Merchant sees, in this mechanism tempered with a little concern for life, the possibility of a managerial vision capable of stewarding resources, one that is illustrated, in the eighteenth century, by John Evelyn’s reflection on the conservation of forests in England.25 It is in this managerial perspective that, according to her, we can situate the reflections of the Club of Rome and the Meadows Report (1972) that resulted from it, which advocate, on the basis of computer modeling, for limiting growth. This managerial path which entrusts the stewardship of the planet to scientific experts by evoking Bacon’s government of scholars—is it the only one possible? No, remarks Carolyn Merchant, we can instead favor the path of Ecotopia by Ernest Callenbach, one of the first to present those small and largely self-sufficient organic communities which

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23 Ibid. p. 40.
continue to be the reference point of certain ecological policies, often of anarchist persuasion.\textsuperscript{26} Depending on the part given to the organic, there would thus be two possible ways out of mechanistic destruction: government of experts and planetary stewardship, or self-administration at the local level.

Furthermore, at the end of \textit{The Death of Nature}, Carolyn Merchant points out that, if we want to commit to a viable future, “a reassessment of the values and constraints historically associated with the organic world view may be essential.”\textsuperscript{27} The fundamental ideas here include cyclical processes, the interconnection of all things, and above all “the assumption that nature is active and alive.”\textsuperscript{28}

But “active and alive” nature is not necessarily found there where it might be expected, when we take organic unity and the order of the living that it represents as our principal reference point. In the last chapter of her book, Carolyn Merchant shows how Isaac Newton, dissatisfied with a mechanism that ignored all life, had become passionate about fermentation and its unpredictable bubbling. There, we have life, as well as a new metaphor, that of fermentation, forging the link between natural disorder and social disorder, between storms and hurricanes on the one hand and political upheaval on the other. Certainly, there is life in nature and in society; the world is neither dead nor on the decline. But it’s an open world, not a closed one. It’s a world that leaves room for disorder.

And it is the trail of this recalcitrant and disordered nature that Carolyn Merchant follows in her most recent book, \textit{Autonomous Nature},\textsuperscript{29} which, once again, charts the course of a history of science that welcomes images and metaphors to retrace the consciousness that we have had, since the Ancient Greeks, of a nature that escapes us. The guiding thread is the distinction—which goes back to theologians of the Middle Ages—between an active nature (\textit{natura naturans}) and a passive, created, or manufactured nature (\textit{natura naturata}), a distinction whose development (especially in Spinoza) she follows up to modern times and the Scientific Revolution. The \textit{natura naturata} never overcame the \textit{natura naturans}. We certainly did not create this autonomous, turbulent, recalcitrant nature (it has always existed), but we helped strengthen it, even though we imagined ourselves masters of nature. Nature takes up all the more space as our powerful but partial hold on the Earth grows stronger. Nature is the reverse of our mastery, and, in the new and recently named geological epoch of the Anthropocene\textsuperscript{30} that is marked, among other things, by climate change, we face nature more and more: it surprises us, and we cannot control it. It is a complex nature that reductionist mechanism cannot account for. The interconnection of all things is always a central idea, but it does not take organic unity as a reference point, as the holistic approach does. Viewed from the theory of complex systems,
interconnection refers to the tension between fragility and resilience and to the impossibility of predicting what will happen.\textsuperscript{31}

If it is necessary to name this autonomous nature Gaia, that is not the name of a loving mother, but rather that of a powerful woman, and especially one who is indifferent to us other humans. In what she calls “a culture of dissymmetry,” Isabelle Stengers evokes the non-reciprocity of our relationship with Gaia: because Gaia is not stable but metastable, she can burst into our lives with violent events, which we are experiencing more and more of. We worry about Gaia, but Gaia is not interested in us: she will survive us, “the bacteria will continue, no matter what nonsense we may do.”\textsuperscript{32} Gaia therefore does not need to be protected: she is, in this sense, neither fragile nor vulnerable. But we need Gaia, because we depend on her, and that is why we must respect her, “not because she is to be respected as a goddess, but in the sense that she is sensitive, even touchy.”\textsuperscript{33} We must therefore be careful, which means admitting that there’s something unpredictable at play here, that the real is chaotic and complex, and renouncing the model of knowledge that is based on domination; this means anticipating and planning, it means power.

The ethic of partnership proposed by Carolyn Merchant\textsuperscript{34} aims to establish an equality between men and nature that rejects both human domination over a submissive nature and subordination to an organic whole; it cannot therefore intervene at a global level. It only takes on meaning on a scale where humans and non-humans meet, in a shared environment, a living milieu. This ethic of partnership is similar to the ethic of care and to the way which Joan Tronto, one of its main theorists, demonstrates the place of the environment therein:

On the most general level, we suggest that caring should be viewed as a species activity that includes everything we do to maintain, continue and repair our “world” so that we can live in it as well as possible. That world includes our bodies, our selves, and our environment, all of which we seek to interweave in a complex, life-sustaining web.\textsuperscript{35}

However, if Carolyn Merchant, unlike some ecofeminists, does not adopt the term care, it is to prevent feminist demand from essentializing a femininity that would thereby be reconnected to the passivity and docility that male domination advocates among women—for women could easily be given the task of taking care of nature, just as they are given the task of taking care of the housework. This is one of the ambiguities that she picks out in the ecofeminists’ adoption of the myth of Gaia: Does this adoption not imply that Gaia, like a good mother of the family, will clean up the mess that men have left around them?\textsuperscript{36} The tasks of care are not feminine tasks in essence, they are tasks whereby women were confined and which feminists, in a subversive

\textsuperscript{32} Isabelle Stengers, “Faire avec Gaïa: Pour une culture de la non-symétrie,” Multitudes, no. 24 (Spring 2006), p. 10.
\textsuperscript{33} Ibid.
\textsuperscript{36} Carolyn Merchant, Earthcare, op cit, p. xv (and pp. 4-5).
gesture, rendered visible, and the importance of which they discovered: these tasks can be performed by men just as well as by women.

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*Translated from the French by Kareem James Abu-Zeid*