

SPECIES NOVA [TO SEE ANEW]

ART AS ECOLOGY

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LOOKING BACK

From space, looking back at earth, we may see three key issues: the accelerating increase of the human species, the accelerating decrease of other species, and the accelerating effects of climate change. We might ask, how are we to cope with these changes *creatively*?

That our societies tend to value economics over ecology, and monoculture and agro-industry over diversity and permaculture, is certainly worthy of ethical attention. Here I want to invoke a call for integrating art as a necessary contribution to ecological intervention. I consider how artists may engage uncertainty, and how art may be used to develop new ways of seeing and “drawing.” This is art for evolutionary survival, not commodification. Art that practices care, shared responsibility, and diversity in the pursuit of eco-centric cultures. Although this paper mainly references visual art forms, this should not be taken to exclude others. Here I am primarily concerned with identifying some of the possible forms of ecological or eco-art. This is art practiced by artist and inventors in the manner of the archetype of Daedalus and worthy of the name implied by the root of the word art. *Rt*, an ancient term from the *Rg Vedas*, refers to the virtuous, continuing creation of the cosmos.

Seeing is Believing/ Uncertainty in View

The suffix *species nova* is ascribed by scientists to a new bacterium species, prior to the confirmation of its existence in the appropriate academic journals. The word *species* means “to look” and “a class of things, living organisms capable of exchanging genes, classified as a taxonomic rank below a genus and denoted by a Latin binomial.” It also refers to “the visible form of each of the elements of consecrated bread and wine in the Eucharist.” *Nova* refers to the mistaken sighting of a new star, a flash of brightness that quickly dims. Something novel is a new kind of nature, something strange or previously unknown, and novelty refers to invention. *Species nova*: two words that evoke ideas about innovations of visual experience and belief.

I use the phrase to denote the potential for understanding a new order and evolutionary change—“to see anew.” I am also aware that *species nova* could mean a mistaken religious experience, or a class of living things that flashes brightly and quickly dims. Uncertainty is embedded in the richness of meanings.

It is ten years since the Earth Summit in Rio popularized the notion of sustainable development and introduced Agenda 21 as a strategy to achieve it. Sadly, culture and art, two of the systems that define humanity, were not mentioned among the necessary tools for building a better future.

But what is sustainable development? Is it about conservation, restoration, or regeneration? Will it stop global warming and feed the poor, or is it like candyfloss—a confection of transient comfort, with no real meaning? Has it become a corrupt cultural construct, an anthropocentric myth in the vain pursuit of hope?

Recently the Intergovernmental Panel on Climate Change confirmed that “most of the warming observed over the past 50 years is attributable to human activities.” However, the projections and models that have been developed for policy makers to envisage climate change scenarios demonstrate the limits of our ability to understand the situation, let alone adapt to it. A recent review in *Nature*, comparing two twenty-year forecasts ironically concluded:

Uncertainties therefore remain that are beyond the statistical uncertainties described in the two papers. But both sets of authors point out that the upper bound on the potential warming for 2100 may well be

above the IPCC figure of 5.8K under ‘heavy emissions’ scenarios. So policy-makers should not discount the possibility of a very warm climate considering long-range policy options. (Funnel 2001, 5)

A subsequent article in *Nature*’s Climate Change Review reveals even more concern about communicating scientific uncertainty, because models that simulate long-term climate changes cannot be tested using real data from the past. However, if “a lack of data prevents uncertainty from being calculated using standard statistical techniques,” researchers could “assign subjective probabilities to their results.” This method allows scientists “to indicate their degree of belief in a result given the information available to them” (37). A qualitative descriptive scale is suggested as another technique for assessing the state of knowledge. But the IPCC itself cannot agree which techniques to use, as each is susceptible to selective interpretation by environmental lobby groups and sceptical politicians alike. Clearly, accepting uncertainty as the norm requires new approaches from those generally offered through conventional science and the market.

In his recent book, *From Certainty to Uncertainty: The Story of Science in the Twentieth Century*, F. David Peat holds that “Quantum theory introduced uncertainty into Physics: not an uncertainty that arises out of mere ignorance but a fundamental uncertainty about the very universe itself. Uncertainty is the price we pay for becoming participators in the universe” (2002, 24). And uncertainty is a state of the postmodern world—the experience of complex and fragmented societies, which perhaps are reactions to the false sanctuary of predetermined reductionism in Modernism. An Environment Agency climate change report recognized some of the effects in the UK, including

... the psychological consequences as people see familiar places, seasons, wildlife, and flora exposed to climate change and loss that would normally take much longer periods. (in Funnel 2001, 5)

Could the experience of individual isolation and uncertainty itself be used to provoke a transformation to some form of community, united in shared experiences and the need to survive and thrive?

In addition to requiring new skills, attitudes, and strategies so that planners, politicians, farmers, and industrialists might respond effectively and flexibly, uncertainty requires new ways of thinking and seeing, or as the Scottish artist Eduardo Paolozzi describes it, “a new culture in which problems give way to capabilities” (1985, 7).

Seeing Differently

What does it mean to see differently? Einstein's Theory of Relativity made it apparent that observers inextricably participate in the scenes they are viewing and "the forms with which we represent space influence the modes of intervening on that space" (in Amador 2002). For example, in a television program about Chinese art, English artist David Hockney compared an early Chinese scroll to a later one in which the artist had been influenced by Western styles. The earlier artist used multiple viewpoints to convey the dynamic narrative of an Emperor's journey along the Grand Canal, and in doing so conveyed the richness, subtlety, and flow of everyday life. In a similar way to cubism, the use of diverse perspective mechanisms permits lyrical glimpses of incidents and events, suggesting shifts in time. The scroll conveys a multi-faceted narrative, expanding the possibilities for understanding the flux of life.

By comparison, the work of the later artist lacked the sensitivity and depth of understanding, favoring a classical aesthetic based on rectilinear perspective. The later scroll employs a sequence of fixed viewpoints along a horizon to establish fixed scenic vistas, and thereby reduces the landscape to object. We can clearly detect different conventions, different ways of seeing, and of encouraging others to see. This is important for ethics, because as Hockney put it, "the way we depict space determines what we do with it" (1984).

In *Metaphors We Live By*, George Lakoff and Mark Johnson revise some central assumptions of Western philosophy, rejecting objective or absolute truth in favour of human experience and understanding. They resolve the polarization of the "myth of objectivism" and "the myth of subjectivism" through the "myth of experientialism."

From the experientialist perspective, metaphor is a matter of *imaginative rationality* . . . But metaphor is not merely a matter of language. It is a matter of conceptual structure. And conceptual structure is not merely a matter of the intellect—it involves all the natural dimensions of our experience. (1980, 235)

Leonardo da Vinci had a similar view, writing, "All true sciences are the result of experience which has passed through our senses, thus silencing the tongues of litigants," and "those who take for their standard any one but nature—the mistress of all masters—wear themselves in vain" (in Holt 1957, 276). He was also critical of those who harkened back to some

misunderstood, misrepresented Golden Era as their guide for development.

Reminiscent of contemporary regeneration marketing, Renaissance thinkers used heritage, a frozen interpretation of history, to justify expansionist development plans. Similarly, the control imposed by the fixed visual representation of perspective, culminating in the application of Descartes' grid system for rationalizing the globe, often mistakes the map for the terrain. With the assumption of God's viewpoint the cartographic illusion sanctioned self-righteous appropriation and colonization of land. The Renaissance therefore set a precedent for plundering the wealth and livelihood of remote others, which has continued exponentially, and the influential ways of depicting space were an important part of the underlying scheme. Hockney's words resonate: *the way we depict space determines what we do with it*. Paul Klee anticipated aspects of deep ecology when he brought culture and nature into the same space: "For the artist communication with nature remains the most essential condition. The artist is human; himself nature; part of nature within natural space" (in Maholy-Nagy 1989, 7).

While architects, planners, and designers are required to communicate in conventions of scale, economists are required to work at market scale and cosmologists, microbiologists, anthropologists, and palaeontologists work in the scales of their disciplines. However, artists may work at any scale, or across scales if they wish. The work of Helen Mayer Harrison and Newton Harrison is exemplary in that they transgress the scales of other disciplines in their ecological reclamation and re-empowering use of maps, or "sustainability icons." As an art form and visual metaphor, their mapping processes combine with written and performative art forms to envision sustainable landscapes and bring new understanding to pattern recognition. But the sum of their art posits itself in "the coevolution of biodiversity and cultural diversity to the advantage of each other" and the form of "conversational drift"—the aftermath of their intervention. As Michel de Certeau comments on their seminal work, "The Lagoon Cycle," "Pay attention to the flow . . . Art is what attention makes with nature" (in Harrison and Harrison 1985, 17).

Among the meanings of perspective are the art of drawing solid objects on a two-dimensional surface so as to give the right impression of relative positions and size, the apparent relation between visible objects as to position and distance, and a mental view of the relative importance of

things. The word is derived from medieval Latin *perspectiva*, from *perspicere*, ‘look at closely, look through’ (as *per-*, *specere*, *spect-* ‘to look’). So by considering perspective, we therefore find ourselves back at species.

Above all, perspective is a belief system with strict rules of adherence. Leonardo da Vinci: “Perspective is a rational demonstration by which experience confirms that every object sends its image to the eye by a pyramid of lines” (in Holt 1957, 280). To bring the original definitions of ecology and art together, we must understand the links between them. We must see each as a moral and aesthetic imperative for biodiversity and cultural diversity—the celebration of the richness of infinite possibility, and the confidence to cope with change. Perhaps this is the leaping together of knowledge that E. O. Wilson refers to as “conscilience.”

Phenomenological Drawing

Given the idea of *rt*, and the original meaning of design—a form of drawing, or creation, that which draws itself—we may consider the concept of phenomenological drawing. Neither illustration, nor interpretation, but a form of drawing that is autopoietic, like silverfish hydrofoiling in the sink, a slug twisting up to a leaf, snail trails and sweat peas climbing, the patina of rust or lichen. It’s a matter of awareness, of being aware, of *being* or *ecopoiesis*.

Things drawing themselves—autograph or self-drawn—the growth trajectory of a foetus and its consequential decay could be seen as a life cycle drawn, a sculptural intervention in minerals and water. Ultimately the drawing is erased, but for us the remaining trace of the physical body is the consequences of our actions—our *ecopraxis*.

Drawing may also be considered as a definition of relationships. Here the definition of ecology comes to play, considering at the web of connections between organisms and their environment. We may start to understand forms or patterns as living drawings: the ripple, flow, and vortices of water, the edges of the coastline as the drawing of the tides’ marks the land. Drawing as a way of thinking, or thinking as a way of drawing, moving on from illustration to interpretation to integration—form, materials, and process as one.

Let us then consider new understandings for what art and ecology might be. Not definitions, but the potential for diverse meanings, and capacities from which further possibilities might flow. As evolutionary biologist Lynn Margulis writes, “Gaia is just symbiosis as seen from space: all

organisms are touching because all are bathed in the same air and the same flowing water” (1998, 2). In a similar spirit Robert Pirsig writes in *Lila: An Inquiry Into Morals*, “The most moral activity of all is the creation of space for life to move onward” (1993, 437).

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