

Art as Ecology: *species nova* [to look anew] #9c

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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 society values economics over ecology, monoculture and agro-industry over diversity and permaculture is certainly worthy of ethical attention. In this paper I propose integrating art as a necessary contribution to ecological intervention. I consider how artists may question the validity of sustainability and how art may be used to develop adaptive skills to achieve it. This is an art for evolutionary survival, not commodification. An art that practices care, shared responsibility and diversity in the pursuit of an eco-centric culture. Although this paper mainly references visual art forms, this should not be taken to exclude others. It is primarily concerned with identifying some of the possible forms of ecological or eco-art, an art practiced by artist/inventors in the manner of the archetype, Daedalus and based on the root of the word art, *rt*. From the *Rg Vedas*, *rt* meaning the continuing creation of the cosmos, virtuously.

Seeing is Believing

The suffix "*species nova*" is ascribed by scientists to the name of a new bacterium, prior to the confirmation of its existence (sighting) by the international

journals. The word "species" means 'to look' and it means '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'. And "nova" means the mistaken sighting of a new star, a flash of brightness that quickly dims - feminine of novae - novel 'a new kind of nature; strange; previously unknown. novelty - invention. Two words that separately and together evoke belief systems that depend on visual experience.

I use the term to denote the potential for understanding a new order and evolutionary change - 'to see anew'. I am, however, aware that *species nova* could mean a mistaken religious experience, or a class of living things that flashed brightly and quickly dimmed. Uncertainty is embedded in the richness of meanings.

Uncertainty in view

It is ten years since the Earth Summit in Rio popularised 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.

So, 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 (IPCC) 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 uncertainty of our ability to understand the situation, let alone adapt to it. A recent review in Nature comparing two 20-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.”

Accepting uncertainty as the norm requires new approaches from those generally offered by society through conventional science and the assurance of consumer confidence. Indeed, 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, known as Bayesian statistics allows “... scientists to indicate their degree of belief in a result given the information available to them”. 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.

F. David Peat, in his recent book *From Certainty to Uncertainty: The Story of Science in the Twentieth Century* 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." And uncertainty is a state of the Postmodern world – the experience of a fragmented directionless society – a reaction to the false sanctuary of predetermined reductionism in Modernism – the last vestiges of the Renaissance dream. But could the present social inertia of individual isolation itself provoke a transformation to some form of community united in shared experience and the need to survive?

The Environment Agency's 'Climate Change Supplement recognised some of the effects in the UK "... 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" and from the Agency's Lessons Learned, "Many communities have been traumatised by their experience fearing the return of flooding each time it rains".

As well as demanding different skills, attitudes and strategies for planners, politicians, farmers and industrialists to respond flexibly, uncertainty will need a different way of thinking and a different way of seeing, or as the Scottish artist

Eduardo Paolozzi wrote “a new culture in which problems give way to capabilities”.

Seeing Things Differently

What does it mean to see differently? From Einstein’s Theory of Relativity onwards, it is apparent that the observer inextricably participates in the scene they are viewing and “the forms with which we represent space (i.e. a map, a sketch, a marquette, or a photograph) influence the modes of intervening on that space.” In a television programme about Chinese art, the English artist David Hockney, described an example of ‘seeing things differently’. He 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 permitted lyrical glimpses of incidents and events, suggesting shifts in time – a multi-faceted narrative, expanding the possibilities of understanding the flux of life.

By comparison, the work of the later artist lacked the sensitivity and depth of understanding, favouring a Classical/Renaissance aesthetic based on rectilinear perspective. This scroll used a sequence of fixed viewpoints, along a horizon, to establish fixed scenic vistas and thereby reduce the landscape to object. This is not to compare the skill of the artists, but the philosophies that informed each

convention, each way of seeing. As Hockney put it: "the way we depict space determines what we do with it."

The Renaissance and Regeneration

In their book, "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 polarisation of the 'myth of objectivism' and 'the myth of subjectivism' in the 'myth of experientialism': "From the experientialist perspective, metaphor is a matter of *imaginative rationality*." They continue: "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 ..."

Leonardo da Vinci had a similar view: "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 – weary themselves in vain." He was also scathing about those who harkened back to some misunderstood, misrepresented Golden Era as their guide for development. Reminiscent of contemporary Regeneration marketing, the Renaissance used heritage, a frozen interpretation of history, to justify its expansionist development plans. Similarly, the control imposed by the fixed visual representation of perspective, culminated in the application of Descartes' grid system for rationalising the globe, often "mistaking the map for the

terrain". With the assumption of God's viewpoint the cartographic illusion sanctioned self-righteous appropriation and colonisation of land. The Renaissance set a precedent for plundering the wealth and (non-renewable) resources of others in remote places that has continued exponentially. Hockney's words resonate: "the way we depict space determines what we do with it. And Paul Klee preceded Arne Naess and the deep Ecology Movement 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."

Art and Ecology

Whilst 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 discipline. 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".

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* *perspect-* 'look at closely, look through' (as *per-*, *specere* *spect-* 'to look')] ... and we 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:..."

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' - 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 - 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, the only remaining 'trace' of the physical body being the consequences of that person's actions – ecopraxis.

Drawing may, also, be considered as the 'definition of relationships'. Here the dictionary definition of ecology comes to play in looking at the web of connections between organisms and their environment. We may start to understand form, or pattern 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. A capacity from which further possibilities might flow. The evolutionary biologist, Lynn Margulis, quotes her student and continues, "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." And finally, Robert Pirsig, from *Lila: An Inquiry Into Morals*: "The most moral activity of all is the creation of space for life to move onward."

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Bertolo, Jose Amador. Representation Forms and Interdisciplinary Practices of Intervention in Public space: from the Graphic towards the Cinematographic. Paper presented as part of the conference Incusivity: a Challenge for Public Art and Urban Design, at the annual conference of the Public Art Observatory, Faculdade de Belas Arts in Lisbon, 29 September 2002.

Capra, Fritjof. *The Web of Life: A New Synthesis of Mind and Matter*. HarperCollins, London (1996).

Coleman, Roger. *The Art of Work: An Epitaph to Skill*. Pluto Press, London (1988).

De Certeau, Michel. Pay Attention: To Make Art. Included in Harrison, Newton and Mayer Harrison, Helen. *The Lagoon Cycle exhibition catalogue*. Ithica, New York (1985).

Drengson, Alan and Inoue, Yuichi, eds. *The Deep Ecology Movement: An Introductory Anthology* [Naess, Arne. *The Shallow and the Deep, Long-Range Ecology Movement: A Summary*]. North Atlantic Books (1995).

Giles, Jim. Scientific uncertainty: When doubt is a sure thing. *Nature* 418, 476 – 478 (2002).

Hockney, David. *The South Bank Show*, London Weekend Television (1984).

Holt, Elizabeth, ed. *A Documentary History of Art. Volume 1 The Middle Ages & The Renaissance*
Quote:Leonardo da Vinci – *Selections from the original manuscripts (50)* - Doubleday Anchor Books, New York (1957).

Houghton, J. Y. *et al, eds.* *Climate Change 2001: The Scientific Basis*. Cambridge University Press (2001).

Lakoff, George and Johnson, Mark. *Metaphors We Live By* The University of Chicago Press, Chicago (1980).

Margulis, Lynn. – *The Symbiotic Planet* – Weidenfeld & Nicolson, London (1998).

Maturana, Humberto and Varela, Francisco. *The Tree of Knowledge: The Biological Roots of Human Understanding – Revised Edition*. Shambala Publications, Inc., Boston (1998).

Maholy-Nagy, Sibyl. [quoting Klee, Paul (1919-1923) *Paths of Nature*. Yearbook of the Staatliche Bauhaus, Weimar .] *Pedagogical Sketchbook*. Faber and Faber, London (1989).

Pirsig, Robert. *Lila: An Inquiry Into Morals*. Black Swan, London (1993).

Peat, F. David *from Certainty to Uncertainty: The Story of Science and Ideas in the Twentieth Century*. Joseph Henry Press, Washington, DC. 2002

Thompson, Della, ed. *The Concise Oxford Dictionary of Current English, Ninth Edition*. Clarendon Press, Oxford (1998).

Wilson. E. O. *Concilience: The Unity of Knowledge*. Little, Brown and Company, London (1999).

Zwiers, Francis W. Climate change: The 20-year forecast – *Nature* 416, 690-691 (2002).