BIOGRAPHICAL NOTE

Prof Timothy Collins, BFA, MFA, PhD. Tim is an artist interested in the changing ideas about our environment, nature and society. The fundamental question underpinning the work is how does (how can) art reframe nature/culture perception and value? He is currently Acting Head of Research and the Graduate School at Glasgow School of Art.

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Wordcount 5,503

Art Imagination and Environment

This chapter is focused upon recent research and artwork that deals with environmental change and landscape in the UK and the USA. A decade or more of work has resulted in research groups with depth and breadth. There are loose networks of artists organized in the EU (Cultura21), the UK (Land2, Landscape and Arts Network and eco/art/scot/land) and the USA (Ecoarts Network and the Women Environmental Artists Directory), although there is no robust academic network clarifying issues and direction. *Leonardo Journal* has initiated a project called 'Lovely Weather' dealing with art and climate change. Otherwise no journal or journals have emerged as a site for focused discourse in the field. There is one museum in the US that explicates research related work specific to the field. In general the curatorial efforts to date are often iterations on themes, rather than a contribution to knowledge in the field. It is important to note that until recently artists primarily made things, while critics, curators and historians wrote papers and books that evaluated, validated and identified artwork of import. This is changing; doctoral research in in art theory and practice is a contributing factor.

The contemporary state of research in environmental art can be interrogated by a review of sustained research interests, projects and exhibitions. Although the overlap between academics in research posts and the artists, critics and curators developing work in the field is often minimal. This contradiction is particularly true in the UK, somewhat less so in the US, Europe, and the rest of the world. I will focus in the US and the UK, the areas where I have spent the most time. However, I must at least mention the terrific work being done by colleagues in the EU such as Nathalie Blanc, Director of Research CNRS, University of Paris, Sacha Kagan, a Research Associate at the Leuphana University of Lüneburg, Germany. Similarly, I should mention colleagues in Asia, including Wu Mali, at the National Normal University, Kaohsiung, Taiwan; and Yutaka Kobayashi at the University of the Ryukyus in Okinawa, Japan.

The story of contemporary art/environment and landscape research begins with formal/sculptural investigations in land art that emerged from the minimalist art movement over fifty years ago. Some of the original practitioners include Herbert Bayer, Walter De Maria, Michael Heizer, Nancy Holt, Mary Miss, Richard Serra and Robert Smithson. The impetus for the work flowed from the artistic, social, political and theoretical context of that time: and in many cases responded to post-industrial conditions, or embraced industrial tools as a means of making marks and forms on the earth. The artists and the artwork have been widely discussed and described in terms of emergent landscape tradition and evolution of form in John Beardsley's Earthworks and Beyond (1984). Lucy Lippard's Overlay (1983) took a broader approach linking the work to prehistoric earth/sky forms, feminism, ritual, homes and graves, with an extensive overview of both material and performative approaches referencing hundreds of artists and artworks. The book has long been considered a key text for practitioners interested in this area of work as its breadth and depth of scholarship and speculation about pre-history incites the imagination. Many of us working in the field have found that Suzaan Boettger's book Earthworks: Art and the Landscape of the 60's (2004) provides significant new material about the earthartists and the context, intentions, processes and methods that informed their work.

More recently Amanda Boetzkes' has written *The Ethics of Earth Art* (2010). She treats the artworks as the focal point of the Earth's 'elemental' agency. This is an interesting idea supported by some very good research and analysis, although the ethical position of the artwork as a medium where the earth manifests its own 'irreducible otherness' (Boetzkes 2010: 21) is not fully resolved in that text.

Moving forward, in 1988 Jeffery Kastner and Brian Wallis published *Land and Environmental Art,* The text provides earth/land art as the foundation and then provides frameworks to understand the evolution of environmental art away from formal artworld concerns, worked out with earth as a sculptural material, towards a deeper relationship to systems, processes, phenomena in relationship to social concerns. The book provides an in-depth overview of international artists and artworks, followed by an impressive collection of articles by artists and critics over a period of thirty years. Read together with Barbara Matilsky's *Fragile Ecologies* (1992) the historic precedents for this work become more obvious, as do the development of integrated social and ecological approaches, as an ethical, restorative stance emerges. Some of the original voices in the area include Joseph Beuys, Agnes Denes, Ian Hamilton Finlay, Hamish Fulton, Andy Goldsworthy, Hans Haacke, Helen and Newton Harrison, Ichi Ikeda, Herman Prigann, Alan Sonfist. Mierle Laderman Ukeles and others. Many of them remain active and continue to develop new work, though most are quite senior now and Beuys and Prigann have both died.

One might argue that the move from land art to environmental art tracks an evolution of human subjectivity and ideas about human inter-relationships to environment. landscape and living things. Suzaan Boettger concludes her text on Earthworks with these words: "Earthworks embodied ambivalent responses to the anti-institutional position of so much of late-sixties culture and fused them with conflicted behaviour toward the natural environment" (Boettger 2002: 245). In a deeply committed engagement with artists dealing with habitat creation and recycling of waste, Barbara Matilsky points to artistic engagement as part of a process of 'solving' the world's environmental problems. She differentiates ecological from environmental art through a moral and ethical relationship. 'Art is defined through the process of creation, and ecological art consummately expresses this by enhancing the foundations of life' (Matilsky 1992: 115). Writing eight years later, Brian Wallis takes this one step further; he identifies a 'post modern resistance' that has "...changed radically in the past thirty years." He claims that there is a "need to remain suspicious of the ideological freight and the constructedness of the concept of nature and calls for its preservation: and to continue to call attention to the fragility of our environment and organized threats to it" (Wallis 1998: 41). The project of environmental art has moved from a material engagement with landscape, through ethical relationships with natural systems and then to a sense of suspicion about how we relate and inter-relate to the natural environment. As the world becomes increasingly aware of the significance of human impact and the limitations of our conception of nature one question to consider is what can we do today that makes a difference?

I will begin by describing the academic infrastructure in the UK and identify key researchers in the process. Although many programmes have opened and closed through the years, the longest running programme with a somewhat tangential relationship to this area was established in the 1980s. 'Sculpture and Environmental Art' (SEA) at Glasgow School of Art is a four year undergraduate programme (with

input into an MFA and an MLitt). The group also supports two PhD students. SEA is focused upon public, social and political forms of artmaking. The methodologies embedded in that course are socially activist and are often identified with David Harding who ran it until 2002. It is more environment and society than environment and landscape. Key researchers include: Susan Brind working on the body and its external influence and internal references; Justin Carter working on issues of appropriate technology and sustainability; Shauna McMullan who is focused on communities of discourse engaged with issues of mapping, landscape and place. Thomas Joshua Cooper is an external complement to this group, with an extensive body of landscape-based field-work in photography that interrogates the meaning of edges between land and water and their related histories. Shelly Sacks launched the 'Social Sculpture Research Unit' (SSRU) in the late 1990s at Oxford Brookes University. She was a student of Joseph Beuys and is considered a secondgeneration leader in the social-sculpture tradition. With a decade of effort and an illustrious roster of internationally recognized academics and professionals in the field, the SSRU has a rising profile. Sacks runs a robust MA programme while supervising seven PhD students. 'Land2' is a research network established at the University of West of England by Ian Biggs in the first years of the new millennium. It is a national network of artists, lecturers and research students with a general interest in landscape and place-oriented art practice. Biggs's specific research interests in recent years have focused upon mapping and psycho-geography. At about the same time Alan Johnston and Eelco Hooftman established the MA in Art. Space and Nature at Edinburgh College of Art¹. The two-year course and its methods were inspired by the work of Patrick Geddes. It is now informed by a broader range of contemporary ecophilosophy. It continues to be led by artists and landscape architects and provides a framework of advanced field studies to develop practical and academic interest in the visual arts, architectural and environmental practice. The group currently supports one PhD student. The staff teaching on the course are also members of Creative Research into the Environment (CORE), with an international network that rivals the SSRU. Key researchers include: Donald Urguhart, recognized for his work in public art and health care; Ross McLean, focused on scenario planning and socio-ecological resilience in landscape architecture; Lisa Mackenzie focused upon the application of ecological principles in design and master planning. Landscape architects Catherine Ward Thompson, working on access to public space, and John Stuart Murray working on ecology and sustainability, provide an external complement to this group. David Haley is a senior researcher and the lead on the MA in Art as Environment at Manchester Metropolitan University. He is primarily allied with Helen Mayer Harrison and Newton Harrison, two original practitioners who inform his approach to whole systems ecology and critical futures. Haley embraces the guantitative and the gualitative to inform poetic dialogue. He develops creative interventions that intend to enable a community of inquiry that informs the development of eco-centric culture. Daro Montag directs research in Art, Nature and Environment (RANE). It was established at University College Falmouth as an MA course that examines the relationship between the visual arts and ecological thinking. The programme includes an international lecture series and a bi-yearly conference on art and environment. Montag supervises three PhD students. There are other key researchers in the UK operating with less infrastructure and supporting coursework. The list includes Simon Read at the University of Middlesex; and Mathew Dalziel and Louise Scullion at Duncan and Jordanstone College of Art, University of Dundee. Likewise there are

key people working on environmental and landscape issues from a digital point of view in the UK including Lise Autogena at the University of Newcastle, Jennifer Gabrys at Goldsmiths, University of London, Tom Corby at the University of Westminster. Corby led the recent Arts and Humanities Research Council (AHRC) funded Digital Ecologies workshops. While much of this work across the UK is pedagogically strong, when considered as research we are looking for work that must be 'effectively shared' (HEFCE, REF: 48) and have explicit 'questions, context and methods' (AHRC: 59-60). Without specific texts that explicate and interrogate these matters, the value of what may or may not be research remains difficult to ascertain.

With few exceptions, these artists and landscape architects have been largely ignored as a confluence of UK funding has supported exhibitions, catalogues and texts that seek to address cultural approaches to environmental change, and climate impact, with landscape as the overarching topic of inquiry. The Royal Society for the Arts (RSA) Arts and Ecology programme ran from 2005-10 as did the AHRC Landscape and Environment programme. The former is closed, while work on the latter is still in a concluding phase with final work being done to establish new research networks that focus upon living with environmental change (see further reading). While the RSA Art and Ecology programme did a lot of good work, it largely ignored the need for investment in practice-based research in the UK. Where the AHRC Landscape and Environment programme did engage artists, it was still a minimum investment. The largest project engaging an artist 'The Future of Landscape and the Moving Image' was organized around the work of the noted filmmaker, Patrick Keiller. The research project would 'identify, understand and document aspects of the current global predicament in the UK's landscape, and explore its histories and possible futures.' (Massey, 2010). This is a breath-taking scope of work. The work was previewed at Nottingham University in 2009 in a seminar with Patrick Keiller and his collaborators, geographer Doreen Massey and cultural historian and commentator Patrick Wright, presenting. The panel proved to be wildly exploratory providing little clarity on the work as a research initiative, but some sense of the depth of exchange between artists and authors. The film premiered at the Venice Film Festival and was then shown at the New York Film Festival. The work is indeed unique, significant and it is rigorous in Keiller's inimitable style. Massey interrogates the work in an in-depth article 'Landscape/Space/Politics: an essay' (Massey 2010) which provides significant insight into the critical ideas and process, the discourse exchanged over the work. Despite Massey's claim that the work "is more demanding politically than the more usual critiques." The fact remains that the most imaginative critical analysis of what is, doesn't take us much closer to a 'possible future'. Of the smaller research grants Craig Richardson ran 'Landscape as Conceptual Art'. It planned to validate various shale hills in the Mid-Lothian area of Scotland as Earth Art, as so declared by the British Conceptual Artist John Latham. Given even the brief history of the field described herein, both of these projects can only be described as idiosyncratic; an investment in a unique variation on a known critique in the former case and a contemporary validation of what has been done in the latter case. The investment is in significant art and an experimental curatorial practice. The contribution to the discourse in the field remains open to question.

But let us consider one of the longest standing arts and environment projects in the UK; Cape Farewell was initiated by David Buckland and it is documented in the

exhibition and accompanying text 'U-n-f-o-l-d' (Buckland and Wainwright 2010). Operating for ten years now, it is an environmental change based programme foregrounding artwork. The question is how does this programme of expeditions with artists and scientists contribute to knowledge within the field? Cape Farewell, sailing from the UK, develops art/science expeditions and produces travelling exhibitions, catalogues and lectures. This ambitious project places art, music and literature at the centre of the climate-change debate. This is a programme of applied art and design where artistic expertise in material, performative and literary methods is exchanged for a ride on a boat to a cold place, where scientists explain why everything around the boat is melting. I would suggest that this is a classic cultural assignment with roots in the traditions of British Empire, where artists and scientists go forth and record images and capture data at the edges of civilization. Nevertheless, Cape Farewell is a high profile, well-funded, on-going programme of Arts Council England. Its director David Buckland and the exhibitions he organizes have international standing, and the work is a cultural symbol of the commitment that Britain has made to highlighting the issue of climate change, particularly through participation in touring exhibitions organized by the British Embassy in Moscow and in Rome, as well as programmes sponsored by the British Council in Germany, Canada and Japan.

The expeditions include a who's who of international art, literature and music. Artists travel to the polar regions with scientists. According to Buckland it is the scientists who "...have allowed the artists to gain a full understanding of the implications of human activity on the fragile environment that is our planet." (Buckland and Wainwright 2010: 8). But this raises two questions, first is science the single definitive path to 'understand' climate change? Second, can any of us actually secure a 'full understanding' of anything in twenty days? It is quite possible that the expeditions have a deep impact upon all that participate. Cape Farewell always has a world-class roster of artists, musicians, writers and poets on-board, but does the work that follows expand the 'climate imaginary', and/or does it push the ideas and practices of art in new directions? Much of the visual work is essentially pictorial, distanced and appropriative, although there are exceptions. The literature that attends Cape Farewell suggests a limited interest in the historical record of environmental art practice, and little or no sense of the theory or external literature that might inform its subject matter. The artists on board the expeditions represent or document a phenomenon, and record gestures and actions in the open arctic landscape. With some exceptions the work is largely devoid of a critical relationship to ideas of nature, power, politics or embodied values. Final forms are typically images, drawings or a mix of image and sound. Artwork presented in 'U-n-f-o-I-d' includes Buckland's now familiar projections of text on ice, presented as photographs, 8mm films by Leslie Frost, geo-glacial archetypal photographs by Nathan Gallagher, video with jungle sounds by Brendan McGuire and coloured flash pictures of ice by Chris Wainwright. This is a "...landscape way of seeing, a gaze projected out onto the land, a vision of authority and ownership, the mind's eye of certain knowledge systems, vested interests and desires" (Wylie 2007: 93). In other words, I went, I saw, I understood things on specific terms. The implication is that the Cape Farewell artists (informed by the science team) have captured the 'true meaning' of climate change, embodied in their images and experience of the last of the ice... for all to see. Admittedly the expeditions have resulted in some important artwork. The project has reset the parameters for consideration of the real publicity

value of art and design on a topic of national interest. It has enabled the production of works that function in a rhetorical fashion, giving emphasis and possibly adding depth to extant ideas about climate.

It is useful to compare similar research and projects underway in the USA. I want to start by considering what may be significant cultural differences; ideas about the role of visual arts in society in the US (Lippard) and the UK (Bunting).

Artists cannot change the world... alone. But when they make a concerted effort, they collaborate with life itself. Working with and between other disciplines and audiences, and given the chance to be seriously considered outside the rather narrow world of art, they can offer visual jolts and subtle nudges to conventional knowledge. (Lippard 2007: 6)

The visual arts offer a myriad of powerful ways to think and feel more deeply about our age and our humanity, but it is almost impossible to trace the causal links of how that may feed through to political engagement or behaviour change.

(M.Bunting accessed 2011)

Following Lippard one problem to consider is how to gauge 'visual jolts and subtle nudges to conventional knowledge'. Or maybe the point is to understand how art 'engages with life itself'. We can also ask ourselves is it really impossible to trace causal links to behavioural change, as Bunting suggests? How is it we can accept the idea that an artwork affects how we think and feel about our age and our humanity, yet suggest that it is simply impossible to demonstrate ways in which it might effect political engagement or behavioural change? Isn't it possible to engage others to ascertain value and impact through social discourse? The term 'causal' indicates a relationship between the first event (the art) and the second event, the viewer's response to an experience of the art and its 'jolts and nudges.' The power of the artwork to affect thought and feeling is as valid a cause and effect relationship as any other causal link. Although it may take extraordinary effort to prove behavior change through art, is it really impossible? The more important question may be – is it necessary? If we are talking about a research-based approach to environmental art, this needs careful consideration.

There are fundamental differences between the US and the UK. The National Endowment for the Arts funds organizations such as museums and non-profits to support the creation of artwork. There is no sense of investment in a culture of research in art and design. The doctoral degree is not a standard offer in Art and Design at US Universities. At the same time, the US has a tradition of philanthropic foundations that contribute significant funding to the arts and culture sector, with diversity of intention and some surprising strategic impact.

One of the strongest areas for research in environmental arts has emerged in the Southwest United States, largely through the strategic support of the Lannan Foundation. *Land Arts of the American West* (Taylor and Gilbert, 2009) is a book, about an academic project. The project was initiated in 2000 by Bill Gilbert at the College of Fine Arts at the University of New Mexico, Chris Taylor at the University of

Texas, Austin joined the programme in 2002. LAAW is a semester long itinerant field programme. The University of New Mexico has also established a robust art and ecology faculty, with support for both undergraduate and MFA students. Bill Gilbert is founder of both LAAW and a cofounder of the arts and ecology programme in studio art. He primarily uses video and installation to interrogate the relationship between people and land. Other staff on the course includes Catherine Page Harris, a landscape architect focused on lines and built forms with dynamic landscape pattern as an orientation, or background to her studies. Andrea Polli has a dual appointment in art and engineering, with a focus on science, technology and media and a specific interest in environmental data and practices in the field of acoustic ecology. Molly Sturges is a composer and performing artist who concentrates upon collaborative community engagement and social/environmental equity.

The southwest is a region that stretches across five states covering more than a half a million square miles, none the less I will suggest that LAAW has 'regional resonance' with other Lannan Foundation funded arts organizations such as the Chinati Foundation, created in 1986 by the artist Donald Judd, in Marfa, Texas. Other organizations I will touch on include the Center for Land Use Interpretation (CLUI), Founded in 1994 in Los Angeles, it is directed by Matthew Coolidge. The project has residency programmes at Wendover, Utah near the Bonneville Salt Flats and in Hinkley, California, near the Mojave Desert. There is also the recently established Center for Art + Environment at the Nevada Museum of Art, in Reno, Nevada, with a programme of exhibitions and seminars. All of these organizations claim some level of research interest.

LAAW and its 'field projects' have a lot in common with Art Space and Nature at Edinburgh College of Art, University of Edinburgh. A mix of artists and architects, focused on travel and consideration of the tensions between the built environment and nature. In their book, Taylor and Gilbert explicate a process of land – art learning by doing that includes historic analysis of artists and artworks, consideration of archeological and anthropological evidence of previous human intervention as well as a process of in-situ tacit learning through art practice. The book is full of information and details on the western landscape and a process of regular creative inquiry. It is written in a non-academic style, which is actually guite similar to Land Art: A Cultural Ecology Handbook (Andrews, 2006). Both of these offer a wonderful hardback compendium of ideas and artists projects, which are presented at face value. In both texts there are hints of research excellence, but the work is almost never interrogated. These texts explain and describe, map what is known with only cursory attempts at analysis. The LAAW text documents the ideas behind the road trips describing a range of sites, from the classic 'land art' project sites such as Michael Heizer's 'Double Negative' and Robert Smithson's 'Spiral Jetty' to the ongoing work on Roden Crater by James Turrell to exploration of the legendary 'Chaco Canyon'; a site of intensive pre-European occupation which is now a National Park. The methods are described as 'place, mapping, space and artifacts'. The work begins with 'basic questions' and 'zones of inquiry' as a way to orient the students and get them moving into their own creative inquiry in those places. (Taylor and Gilbert 2009: 146) At the same time, the project team operates from an ethical 'leave no trace' position, taking images but leaving no marks or artifacts behind. (Taylor and Gilbert 2009:154) This is a unique pedagogical programme with research

potential that is only partially formed as research and remains lightly interrogated at this time.

The Center for Land Use Investigation is known for an internet-led process of open inquiry. The project has developed a national database of visual and mapping materials that address transportation infrastructure and the industrial and military complex, as well as the hinterland and wastelands where human impact is significant. Having seen a bit of this work, I would argue that it is most effective where a focused and seemingly obsessive visual record helps one to grasp the physicality, the scope and the scale of an issue. I've seen a project on private development and the California coastline, which was effective in this way. The work on the Alaskan pipeline has similar potential depending on presentation. The noted critic Jeffery Kastner states that CLUI projects "...have the dual (and engagingly ambiguous) purpose of educating viewers about the meaning of specific sites, while at the same time striving to make new meaning in given locations." (Kastner in Andrews, 2006, p. 25). I would argue that CLUI's intent is to document, not educate: the method is to present what is, rather than project what it may mean. Consider CLUI's American Landuse Database [http://ludb.clui.org/]. The database is a record of infrastructure and waste sites chosen by a stated criteria of the 'unusual and the exemplary'. As a body of lens and map based work it has potential to help us 'see', to witness, a documented material truth. My own review left me underwhelmed with the generic facts that document a few obvious choices of limited interest in three places I know well. Coolidge argues, "Through us trying not to tell people what to think about the site--by getting in touch with this truth of the ground--maybe you come away with more of an emotive or a psychological truth, a more complex and complete sense of the place." (Coolidge 2005). The focus on 'truth on the ground' is not dissimilar to the claims of 'full understanding' by artists working on Cape Farewell. The fact that both are primarily mediated through second-hand experience of lens-based activity, devoid of intellectual consideration or interrogation, further complicates these claims.

CLUI's practices are interrogated in an article in Frieze Magazine, where Kurt Mueller examines artwork focused on the City of Houston Texas and its oil infrastructure. He takes issue with the claimed 'objective lens' and the overt 'museological' veneer of the work. Mueller states, "...the show itself remains physically, sensorially and politically clean." He questions the lack of direct critique, the disinterested view does not help the viewer come to grips with the broader aesthetic issues embedded in the subject (Mueller, Frieze, 123, May 2009). Where Kastner finds engaging ambiguity, Mueller finds a feigned objectivity. The artwork, like that of Cape Farewell, is pictorial, distanced and appropriative. Where Cape Farewell brackets any hint of didacticism, CLUI insists upon an ironic objectivity. This is a calculated position that cloaks the artwork in modernist ideas about scientific disinterest, measurement and factuality. In fact beyond what can be seen by CLUI's photographic eye – lays a complexity of ecological impact and social inequity that is ignored as a result.

The Center for Art + Environment (CA+E) at the Nevada Museum of Art has made a bold move into questions of environment. Directed by William L. Fox, an artist and author with a sustained interest in human cognition and its relationship to landscape. In the welcome message to the 2011 CA+E conference, an exemplary international

mix of top rate artists and academics; Fox said, "The study of art + environment is not just about remembering what we've done, but is also an ongoing re-creation of the future through imagination, aesthetics, and technology." (CA+E Online)

The research and curatorial programme has been developed in relationship to an expanding archive of work on Land Art, with extensive material on the work of artists Michael Heizer and Walter De Maria, as well as work from artists on six continents. The current exhibition programmes are exemplary and include work from Helen and Newton Harrison, Professors Emeriti at UC San Diego, working on the climate change ecology of the Rocky Mountains; Richard Black of the Royal Melburne Institute of Technology University, working on the Murray river; Rodrigo Pérez de Arce, Catholic University in Santiago working on fog drip collection; as well as a new body of work from Bill Gilbert of the LAAW, at University of Austin, Texas exploring the relationship between information technologies and the embodied practice of walking. CA+E is an exemplary new programme, an example of a museum serving a regional interest providing an anchor-point for research in the field with significant international impact.

Over the last tem years there has been a rush of important exhibitions dealing with art and environment. 'Earth: Art of a Changing World' at the Royal Academy of London (2009) and 'Human/Nature: Artists Respond to a Changing Planet' organized by the University of California at Berkeley Art Museum and the La Jolla Museum of Art in San Diego CA (2009). These exhibitions are notable in that they present amazing visual work by the world's most prominent artists, although these artists have a tenuous relationship to the subject matter. In the latter case artists were embedded in international conservation areas, where biodiversity collapse is imminent. In counterpoint the following exhibitions featured artists actively involved in the ethical-aesthetic issues of the field. One of the first to take the climate issue head on was curated by Lucy Lippard at the Boulder. Museum of art: titled 'Weather Report: Art and Climate Change' (2007). Working in the same way, The RSA: Arts and Ecology Programme organized the 'Radical Nature' exhibition and catalogue (Manacorda and Yedgar, 2009) Curated by Francesco Manacorda looking at utopian and visionary artwork that engaged nature as a living ecosystem integrated with human interest.

In curatorial efforts more integrated with academic interests conversant with theory, there is 'Beyond Green' curated with a catalogue edited by Stephanie Smith (2005) at the Smart Museum, University of Chicago. Smith is recognized for her attention to experimental public art practices and alternative and international examples of cultural infrastructure. The exhibition has been recognized and referenced for it ideas about sustainability in art and design. The exhibition extends work done previously by Heike Strelow in the exhibition and catalogue 'Natural Reality' (Strelow,1999). Both projects inform Sacha Kagan's new book *Art and Sustainability* (2011). Groundworks', was curated with a catalogue edited by Grant Kester for the Miller Galleries at Carnegie Mellon University (2005). The exhibition focused on artists around the world that sustain work in the public realm and engage in creative projects at scale with democratic/creative intervention and change, is also embedded in *Ecovention: Current Art to Transform Ecologies* (2002) an exhibition

and catalogue edited by Sue Spaid, curated with Amy Lipton that extends and critiques Matilsky's (1992) original project.

In a strategic and significant extension of all of these models 'RETHINK – Contemporary Art and Climate', was developed in Copenhagen with partners at the Nkolaj, Contemporary Art Center, and the Den Frie Centre of contemporary art. This exhibition and catalogue (Witzke and Hede (2009) included challenging artwork and an extraordinary depth of ideas, philosophy and programmes that deal with contemporary theory and practice in the field. Anne Sophie Witzke writes that our time '…has given rise to questions regarding the role art can and should play in relation to global problems such as climate change. Can, and should, art concern itself with social issues of such serious and complex nature?' (Witzke and Hede 2010: 9). The exhibition is organized around ideas about relations, information, implicity and the concept of kakotopia (a negative society, an anti-utopia of chaos and disintegration). It sharpens the questions and our ideas about the role of art; it possibly gives us all a point to move forward from.

I provide a sense of current developments in the field of art research in relationship to environmental change and landscape. Art and design researchers are torn between the validation and support of the classroom, the ever-present demands of the contemporary artworld and the emergent realm of research. Much of the longterm work and exhibition in the field remains confined to questions of traditional media and ideas about visual aesthetics, ignoring a decade of development in critical theory and environmental aesthetics.

We live in the age of the anthropocene where humanities reach has a negative effect upon all living things on Earth. We are increasingly aware of the fact that in our relationship to nature, environment and landscape we have bound future generations to a life that will be somewhat less than our own. I would argue that the arts and humanities together have an important role to play in the evolution of human imagination as well as; perception, subjectivity and ethical, aesthetic obligation. To achieve that role, academics in the field needs to take stock, set strategy and develop short-term tactics to help funders, publishers and curatorial interests see where support and investment is most needed.

Further Reading:

There were fourteen 'researching environmental change' networks established by the Arts and Humanities Research Council in 2010. Three were focused within the visual and performing arts; one focused on environmental writing but included many artists in the working group. Relevant programmes include 'Data Landscapes' with Dr Tom Corby at University of Westminster, 'Learning to Live with Water: Flood Histories' with Prof Lindsey Jo McEwen at University of Gloucesterhire, 'Reflecting on Environmental Change Through Site-Based Performance', Prof Stephen Bottoms, University of Leeds, and 'Values of Environmental Writing' with Dr Hayden Lorimer at University of Glasgow.

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