

WEATHERPROOF

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Abstract

As part of the *Lovely Weather* project, artist and environmental scientist Antony Lyons undertook a rural science and art residency project examining the relationships between the locality of the River Finn Valley, Co. Donegal, Ireland and the processes of climate change. The local countryside is, in many ways, enmeshed in the wider global systems. At the core of my project was the quest for new avenues of communication and dialogue - through revealing unseen and metaphorical connections - enabling the local community and others to engage with the global issues, and the science, in a meaningful way. A research-based 'deep-mapping' approach was used. Art installations were developed and there now exists a platform for some locally grounded sustainable development initiatives to emerge.

Approach

WeatherProof was one of five *Lovely Weather* art and science residency projects, undertaken in Co. Donegal, Ireland throughout 2010. The specific site was the River Finn Valley. This valley is predominantly rural, with a mix of farmland, bogland and an increasing coverage of coniferous plantation. What began as a climate change (and weather) project, slowly, over time, expanded to embrace issues of land-use and ecology. My approach was informed by a hybrid background in environmental sciences and visual arts, and was also guided by contemporary approaches to 'deep-mapping' as a creative practice [1] [2]. The aim was to build bridges - or open gateways - between professional and lay-person understandings of climate science, nature and landscape. To link the local to the global, fieldwork (walking, talking, listening, recording) was accompanied by discussions with professionals and development of a conceptual framework. Participants included local school-children and many other local residents, supported by academics from the Palaeoecology Department at Queens University, Belfast.

Walking (and listening), talking (and listening), thinking (and listening)

The residency period included four extended visits, each providing an opportunity for walking the landscape. This intimate 'experiencing of place' provided the crucially important grounding for the project. The fieldwork combined the awareness of the artist and scientist; exhibiting both immersion and distance.

There emerged a collection of recorded conversations with local people - some impromptu, some pre-arranged. The conceptual frameworks evolved alongside, motivated by the desire to make, and communicate, meaningful links between the local landscape and global climate-change. The children from Dooish National School provided a useful testing ground (whilst also hosting a weather station as part of the project). The local postman - a dedicated folk meteorologist - became a very important contributor.

Initially, a concept involving 'layers in the landscape' (both visible and invisible) proved to be a useful tool for prompting dialogue and synthesizing a vast web of potential connections. An associated idea of an imaginary 'core' through the entire landscape/viewscape was also used. Each horizon then becomes a 'gateway' opening up to a network of viewpoints and inter-dependent processes - the local-observed; the local-unseen (invisible dynamics); global climate fluxes; environmental stewardship; and the envisioning of opportunities for change and re-balancing [3]. "Climate is thus a multidimensional phenomenon in which the contributions of nature, culture, history and geography are combined, but also the imaginary and the symbolic" [4]. A useful term for me is 'eco-symbolic landscape'. Thinking locally, acting globally.

Over time, one horizon in particular - the peatbog - emerged as my central focus. It gradually became apparent just how important the bog environment is to the ways of life and culture of the Finn Valley. One encounters the aroma of burning turf (peat) from homes throughout the area. Patterns of drying peat 'footings' and stacks spread out over the blanket bogland. Peat, the substance, has symbolic and ritual value, not to be viewed as simply another energy resource. However, the harvesting is an increasingly contested and debated topic, with unique challenges and possibilities. Locally it is now carried out by machine, where previously it was hand-dug. On a global scale, bogs and mires have a hugely significant role to play in the carbon balance between ground and atmosphere, and there is on-going debate about whether peat is classified as a fossil fuel. In Ireland, there are suggestions that grants be made available to maintain the bogs in their pristine state, as carbon-sinks. The 'blanket bogs' of Donegal are therefore firmly entangled in global warming.



Fig. 1. Finn Valley, Photo © Steve Carter

Time Will Tell: The Science of Climate-Reconstruction

Mid-way through the project, I approached researchers at Queen's University, Belfast, seeking assistance in my efforts to refine and communicate the scientific approaches used to investigate such time-layers, identifying changing climate and land-use. Hidden from view, and too small for sensing by the human eye, lies a vast repository of information-rich records; (climate-)archives of pollen, volcanic ash, beetle and midge skeletons. Sections of recovered bog-oak - and other tree species - are routinely examined to piece together the changing climate picture since the last ice-age. Investigation of such layers within the peatbogs and lake sediments is important to past-climate reconstruction, and in turn to the theories and models on which future climate predictions are based. Carbon is not just a core climate 'element'; it is also core to dating the past. Tephra layers (volcanic ash) form important marker horizons for dating the core-sequences. The start of my residency happened to coincide with the Eyjafjallajökull volcanic episode, whose disruptive ash cloud deposits now form part of the layer sequence.

The landscape layers are very much about time; climate change is about time (and speed...how long?...how quickly?). The roots of climate disruption could be located in an addiction to 'speed' (i.e. fossil fuels). My unifying, grounding, symbol summing up a confluence of landscape, climate-systems and time/speed is the iconic picture of a farmer leaning on the field-gate - a sign of 'slowness' and slow observation (of the weather, the land, the livestock etc). Until recently, such a sight was common in rural Ireland, its slow disappearance is an indicator not only of a changing pace of life, but also of a diminution of intimate connection to nature and the land. The gateway signifies 'entrance', but also a 'separation'.

Rural artist residency as ‘deep-mapping’ research

Deep-mapping is a form of creative practice, with roots in performance art, literature and the visual arts. It “brings together the amateur and the professional, the artist and the scientist, the official and the unofficial, the national and the local” [5]. For me, it is important that it is the ‘verb’ (i.e. mapping) more than noun (map), and can be imagined as a rhizome-, or mycelial-like meshing of local/ historical/ social/ personal/ mythological threads. In the process, the enduring meanings of locality and place fuse with a multitude of more ephemeral, virtual connections. Like the underground mycelial mass, deep-mapping produces ‘fruit’ - which might take the form of writings, songs, sculptural works, installations, performances, poetry etc. The fruits of deep-mapping may in themselves be maps - even “future maps...grounded in rigorous technical and strategic research, as well as multi-sectoral social mapping of networks and players...components, connections, configurations, commons and players...radiating social networks...to leverage change” [6]. In a recently review of the field of Deep Mapping, Iain Biggs describes “interventions – using hybrid site-specific methodologies combining creative and academic approaches - to address the social processes that construct, locate, and modify social and cultural meaning through remembering and forgetting. So deep mapping aims to challenge the official management of memory that fixes the value and uses of places.” [7]. A deep-mapping process is long-term, slowly emerging and celebratory. If this helps to enhance the ecological ‘proofing’ in a locality, this can, in aggregate, have positive climate-balancing outcomes.

Exhibition

The end-of-year *Lovely Weather* exhibition at the Regional Cultural Centre in Letterkenny was an opportunity, via sculptural installation works, to imaginatively present some locally-meaningful climate-science processes and themes. My installation was in three parts - a triptych - and served as a prototype for a future installation to be sited outdoors in the Finn Valley.

1. A turf-stack was constructed inside the gallery, using the traditional techniques. This was augmented by a number of QR codes, allowing those with

appropriate smartphone readers to access contextual content. The piece, and associated texts, aimed to draw attention to the tensions which exist in the use of this material and the threats to the carbon-sink value of the boglands. The process of constructing the stack revealed some of the rich cultural capital embodied in this substance. The vernacular crafts associated with the boglands are still part of the inter-generational fabric of this community; part of the folk-lore, folk-memory and inheritance; part of the annual calendar, providing a living, working connection to the land, even for non-farmers.

2. A circular steel sheep-feeder (as commonly found in this landscape) was used to frame, and contain, a museum-like assemblage of scientific ‘finds’ from the boglands. Many of the exhibits were from Donegal bogs. This part of the triptych sought to reveal the immense interest - from climate scientists and palaeo-ecologists - in the richly informative archives preserved in Ireland’s bogs. The apparent preciousness of the carefully collected scientific samples - preserved under glass - was contrasted with industrially extracted ‘peat briquettes’, destined to go up in smoke in domestic fire-places. Also included were local examples of both hand-cut and machine-cut turf, revealing other tensions affecting the potential for sustainable use of this resource.

3. A glass greenhouse completed the installation. This played host to a two-hour, real-time, video-work of two slowly changing landscape views, as day changes into night in the Finn Valley. The accompanying field-recorded voices discussed peat, time, pace-of-life, climate, weather, tradition, tweed and much more, weaving a rich tapestry of different view-points. The climate-science associations with the local landscape are also represented.

Legacy

Some prospects for change, in the Finn Valley, have been triggered during the year. I will be developing these further with the local community development organisation, and others.

1. ‘Slow’ can be used to refer to ‘local’, ‘low-impact’, and ‘organic’, as well as to pace of life. The ‘slow revolution’ is the revival of local distinctiveness as well as the low-carbon activities. In some respects, the Finn Valley remains a haven

of ‘slowness’, and has the potential to be a beacon for a culture-shift, involving restorative activism, nature-sensitive development and eco-tourism. There are some obvious latent possibilities to be explored, such as initiatives related to trails along the disused Finn Valley railway line, and sustainable forestry.

2. Creative thinking can prompt a richer awareness and understanding of place, fusing ideas based on vernacular craft, ecological knowledge, bio-regionalism and watershed (river-basin) mapping. Innovative art residencies, summer schools/camps etc. can play a part in facilitating past-climate scientific investigations in the Finn Valley bogs and lakes. The suggestion is that much of this will be carried out with the involvement of the local schools, thus engendering a sense of local ‘ownership’ of such knowledge and data.

It can take two to three years for a project like this to really begin to resonate; relationships take time to evolve, as do the concepts. The artist’s (or the hybrid artist-scientist’s) role is by necessity free-form: investigator, thinker, mediator, mirror, documenter, story-teller, fantasist, sculptor - immersed in both the ‘facts’ and the ‘truth’. The overall process has reinforced my belief that creative residency (or ‘deep mapping’) projects are essentially a dialogue - and perhaps even an essential dialogue - between art and science.

References and Notes

1. Shanks, Michael. <<http://documents.stanford.edu/MichaelShanks/51>> accessed 30 January 2011.
2. In association with the PLaCE Research Centre (based at UWE, Bristol, England), I am exploring deep-mapping as a creative methodology that addresses long-term engagement and awareness raising, going beyond single disciplinary perspectives.
3. A year-long online diary was maintained for the project. This offers a deeper insight into the relationships and connections which were explored. Available via <<http://www.antipod.info/>>
4. Knebusch, J., “The Perception of Climate Change”, *Leonardo* 40, No. 2 (2007).
5. Mike Pearson and Michael Shanks, *Theatre/Archaeology* (Routledge, 2001)
6. Dreaming New Mexico <http://challenge.bfi.org/application_summary/367#> accessed 30 January 2011.
7. Biggs, Iain, “Deep Mappings/Spectral Traces: a partial view”. Keynote paper for the “Mapping Spectral Traces” symposium, Virginia Tech, USA 13th Oct 2010.