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CONSERVATION SCIENCE AND CONTEMPORARY ART: THINKING ABOUT TENERIFE

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Abstract

Art has long been seen as a way to illustrate conservation science for public outreach, especially to children. However, art has a greater role to play as a partner in interdisciplinary practice. Here we explore four examples where early career conservationists use the production of artwork, inspired by contemporary art movements, to engage critically and emotionally through the formalisms of art with conservation issues on the island of Tenerife. In this paper, the authors suggest that the production of art by conservationists and as conservation (and vice versa) is key to learning to translate between art and science, leading to fuller interdisciplinarity.

Pedagogy, Contemporary Art, and Interdisciplinary Conservation Sciences

Increasingly, scientists see art as an important tool for research and communication. Primarily, the arts are seen by scientists as a way to visually and viscerally communicate science [1–3]. Indeed, many forms of art, design, craft and performance can have this role. Art that directly engages with ecological issues may be valuable to ecologists and conservationists as a means to educate the public and to provide mediated interactions with nature [4]. Conservationists are increasingly embracing new media technologies and sophisticated programs and interfaces for the crowdsourcing, communication and display of data [5, 6]. Art is also frequently called on as a medium for children to explore natural phenomena and express their insights (for example, River of Words <riverofwords.org> and Scopic <csc.mrc.ac.uk/PublicScience/Schools>).

More broadly, the Art Science Manifesto argues that science and art together are, and always have been, necessary to re-think and solve emerging socio-ecological challenges, such as the maintenance of civil society and sustainable development [7]. This draws in part on work documenting how problem generation and problem solving strategies (“thinking tools”) are shared across arts and sciences [8]. Scientists who practice arts and crafts are more likely to be recognized by their peers for their contributions to science, a reasonable proxy for scientific creativity and problem solving [9]. The argument is that art provides “problem sets” that are formally quite different from scientific problems, but that fundamentally call on the same thinking tools and can, with practice, be translated into insights and skills expressed in scientific formalisms [8]. (The reverse is also true.)

These problem generation and solution strategies, or “thinking tools,” shared across arts and sciences are already applied in conservation education and outreach [10]. Better understanding of the tools should lead to their more intentional and effective use. However, another area that requires more attention is the process of translation between scientific formalisms and artistic formalisms. By formalisms we mean theories, modes of thinking, standard approaches to question posing and answering, formats and associated techniques in which outputs are produced, communicated and disseminated, etc. For example, in the “Dance your thesis” competition, PhD students convert their research from the formats and logics of a scientific

thesis to those of a short dance [1]. Formalisms channel and constrain problem production and solution in ways that can be highly divergent, intellectually stimulating, and practical or impactful. Because formalisms across science and art (and within them) can vary immensely, translation between them may be difficult but also can be a source of innovation [8].

Conservation science is at the forefront of academic science efforts to be interdisciplinary, although of course artists have been working with researchers to create environmental art and advocacy for years (e.g. the Harrisons <<http://theharrisonstudio.net>>). Conservation science aims to study the conservation and management of the diversity of species, habitats and landscapes. As conservation is an applied science with considerable feedback between theory and practice, conservationists have come to understand that humans—their individual behaviors, social structures, and cultures—are inseparable from ecology. Conservation now widely acknowledges the relevance of disciplines such as ethnography, political science, environmental history, human geography, and psychology. As part of the attempt at interdisciplinarity, conservation scientists have developed their own versions of theories and techniques from these areas that they have incorporated into their research toolkit. Collaborations between conservationists and researchers in other fields are an important source of stimulation and innovation in conservation science. Nevertheless they can be difficult when psychologists see conservation psychology as “psychology lite” or anthropologists see ethnography carried out by conservationists as lacking appropriate theorization. Nevertheless, this process of interaction, appropriation and reformulation is part of the difficulty that is translation between formalisms.

Given this level of interest and experience of conservation scientists in interdisciplinarity, it is perhaps surprising that art is rarely considered a partner discipline, but rather a medium for outreach applied *post hoc*. There are two possibilities, which may both be true depending on the backgrounds of the researchers in question. Conservationists may either naively see art as “pure expression” with little to offer intellectually, or they may have more experience with art practice and art history/ art theory but do not realize that a translation process is possible. (For an ecologist discovering art, see [11].) The final frontier in interdisciplinary conservation science is the integration of art into the toolkit.

Here we report on several art projects that were developed by students and one staff member in the Biodiversity, Conservation and Management (BCM) MSc course of the School for Geography and the Environment, Oxford University. The idea of creating artistic statements arose spontaneously during the 2013 BCM MSc fieldtrip to Tenerife, Spain, where students learn about the range of conservation issues affecting this island off the west coast of Africa (Fig. 1). Art is not a subject studied in BCM, yet students developed, with few resources and little time, a wide range of intriguing artistic statements in response to their experiences of conservation on Tenerife (Fig. 2). We highlight and discuss projects that drew explicitly on personal engagements with land art, contemporary installation or performance art.

The purpose of this paper is not to place these art projects in the context of trends in recent art history. The artists themselves, in their statements (which follow) highlight the ways in which they are intended to relate to art history or theory. Rather, we wish to illustrate a couple of observations. First, a selection of high-achieving early-career conservationists have a pre-existing interest in contemporary art that they spontaneously draw on when asked to create an art project about an object of conservation concern. Second, when scientists draw on art to think about conservation, it will often be recycled and derivative, rather like these examples. We discuss the implications of these two observations at the end.



Figure 1. Students exploring different habitats and protected area models during the BCM fieldtrip to Tenerife, 2013. (© Meredith Root-Bernstein)



Figure 2. Presentations of the art projects discussed in the text, BCM group meeting, Tenerife, Spain, 2013. Top left, Curt Hayward, top right Luke A'Bear, bottom left Meredith Root-Bernstein, bottom right Christian Smith. (© Uri Roll.)

Resistance: MR-B

On Tenerife three things struck me. First, we met Dr. José María Fernández-Palacios, who told us that due to budget cuts, conservations could only “resist” and wait until conditions were favorable again, “like a seed.” Secondly, we learned about the association of the Badlands (“Malpaís”) of Güímar with a pilgrimage site, facilitating its conservation. Pilgrims visit the site where a wooden statue of a woman holding a baby and a candle washed up on the beach in the 1600s (and was later washed back to sea). Thirdly, the Badlands of Güímar are remarkable for their inhospitable, very rough and pointy volcanic rocks, lack of soil, and sparse, low, rounded plants. I drew on these elements to create an artwork inspired by Fluxus and similar performance art [12]. The work is documented by these instructions (Fig. 3):

- (1) Optional: Obtain a baby and a candle
- (2) At Malpaís de Güímar, set your camera on a 10 second timer
- (3) Within 10 seconds, find a resistant position
- (4) Hold this position as long as possible
- (5) Repeat as often as necessary, but not more

Steps four and five can only be appreciated when the performer realizes the exceptional discomfort of resting, sitting or crouching on the volcanic rock surfaces, especially when trying to hunker down quickly. Bruising and scratching occurred. I repeated the sequence several times, enough to feel physically, as well as conceptualize, the exposure and precariousness of life resisting a hostile environment while storing the energy to grow and move.



Figure 3. A photograph produced as part of the artist performing the work, showing her crouching on the ground to assume a resistant position in the Badlands of Güímar. (© Meredith Root-Bernstein. Photo © Meredith Root-Bernstein)

Sand and Sunbathers: JCH in Tenerife

This series of photographs was inspired by the film *Stones and Flies: Richard Long in the Sahara* [13]. The land artist Richard Long is filmed marking the volcanic moonscape of the Algerian Sahara by stamping his feet into the parched ground. At one point Long is recorded creating a circle in this fashion. Attempting to recreate such a circle on the beaches of Tenerife proved to be impossible, every inch of sand being already im-printed with a footprint. What was possible, however, was to flatten out a patch of sand using my hands. This was done on the black beach of Puerto de la Cruz. The effect of the bright sunlight on the black sand meant that the uniform, flattened sand contrasted with that of the rest of the beach, a light grey circle in a sea of black. The beach was photographed every 15 minutes over the duration of two hours. During this time people made an active effort to avoid treading on the light grey circle. However, towards the end of the time period one footprint was pressed into the flattened sand. In the following fifteen minutes the circle had been walked across and two people had set up their beach towels within its perimeter (Fig. 4).



Figure 4. A photograph from the end of the observation of the artwork, when a couple set up their towels on the flattened sand after two hours. (© James Curtis Hayward. Photo © James Curtis Hayward)

Nothing is Set in Concrete: LA

Rapid tourist developments have changed the face of Tenerife in the last 60 years and it is this that my installation wishes to address. The island has the volcanic peak of Mount Teide at its center, dominating it from every angle. I thought it would be a good idea to illustrate this damage by cloaking Mount Teide in a veil of grey “concrete.” I took inspiration from the environmental artistic duo Christo and Jeanne-Claude, who amongst other things covered the Reichstag in material and surrounded eleven islands in the Biscayne Bay with pink fabric [14]. This “concrete” would in fact be grey fabric, deployed over night by a team as to cover the top 200 meters of the volcano. The residents of Tenerife would then awaken to the emblematic peak seemingly “destroyed” and covered in concrete. I would hope to spark debate amongst the residents regarding the changes the island has undergone and the future threat development poses to the many wonderful ecosystems Tenerife supports. A sudden “paving” over of Teide would hopefully make locals reflect upon the rapid changes the island has undergone and whether or not they really wish more to occur. This is especially prominent during the global recession, with many residents more concerned with employment than conservation.

Sounds of Tenerife

Finally, we want to describe a work of performance art that we unfortunately no longer have a record of. Fellow BCM student Christian Smith created this work and performed it during a class meeting in a hotel during the trip to Tenerife. Christian asked everyone to stand by themselves somewhere in the room, and to close our eyes (See Fig. 2, lower right panel). He instructed us that he would read out a series of words and that he wanted us to try to imagine the habitat on Tenerife that each word described. He read out about a dozen multi-syllabic nonsense sounds, with the vowels and consonants showing a markedly Swedish phonetic influence. At least some of us felt that for the first few words, we could imagine a landscape that corresponded both to the sound and to one of the habitats of Tenerife that we had visited. This created a compelling synesthetic experience. Although we have no record of the inspiration for this piece, it seems clear that the phonemes he drew on came from his experiences living in Sweden. In any case, we could link this work to traditions of landscape music by, for example Strauss and Mahler [15], Dadaist and other sound poems [16,17], and maybe even to the hidden histories of toponyms and the story of Adam naming the animals. It thus suggests powerful ways of remembering, performing and giving personal meaning to the habitats of Tenerife.

Conclusion: Bringing Art to Conservation

These realized and unrealized artworks by non-professional artists demonstrate a number of points that we hope both artists and conservation educators and professionals will find useful. First, many works of modern and contemporary art are making an impact on how early-career conservationists interact with their environment. These appropriations and inspirations emerged along with more typical (if no less interesting) poems, fables, drawings, photographs and collages. We initially speculated as to whether the lack of integration of arts into conservation research is due to a naïve understanding of art as mere expression, or simply a lack of awareness about possibilities of interdisciplinary translation. These projects illustrate that at least some early-career conservationists are aware of, and will spontaneously play with, formalisms of art that go beyond a stereotypical naïve concept of art as self-expression via writing or drawing. We think that art and art history education for conservationists should be both well received and productive.

More specifically, the place-based, behavioral and systems-oriented, environmental, and synesthetic themes in much of modern and contemporary art resonate with conservation's interdisciplinary concerns. This goes beyond what is normally considered environmental art [18] or science and technology inspired art [19] and might embrace artists as diverse as Elafur Eliasson, Josef Beuys, Martha Rosler, Hans Haake, Hélio Oiticica, Gordon Matta-Clark or Meredith Monk, to suggest a few. The correspondence between these areas is fertile ground for developing art-conservation interactions.

We see the interactions between art and conservation as having two goals. One is adoption/adaptation and the other is collaboration. While these two engagements can be part of the same process, only the latter is likely to produce art seen as innovative by artists.

As in the projects discussed here, inspiration from often older, thus better known, works of art can be used as a framework through which to develop new and meaningful interactions with particular environments and situations, aimed at personally novel engagements with the object of study. These works may not push the formal boundaries of art. However, they can extend its reach and its impact by incorporating some of the logic of art into the logic of science, via processes of translation. Many artists will be bored by this, seeing conservation as grappling with old problems and producing artistically uninteresting products. By contrast, conservationists are likely to find this playful, stimulating and innovative within the ambit of doing conservation research.

At the same time, art that simultaneously positions itself as conservation, and vice versa, could move both fields towards new creative and productive horizons. This kind of collaboration, satisfying both parties as advancing their own field, is only likely to occur where each has previous experience playing with art and science in the way perceived as boring by the other. Practice with translation will lead to facility.

The projects we report on here were not part of a larger educational process aimed at building facility with art-science translation. To achieve this, similar projects should be elicited with greater frequency and in the context of art and art history instruction in addition to the normal conservation sciences. We hope that artists and conservationists can be inspired to develop such programs.

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