

Institution: University of Cumbria		
Unit of Assessment: UOA32: Art and Design: History, Practice and Theory		
Title of case study: Using art to influence, benefit, and inform conflicts in human and non-human interaction, and efforts to conserve species		
Period when the underpinning research was undertaken: 2013-2014		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Mark Wilson	Professor of Fine Art	2007-Present
Period when the claimed impact occurred: 2014-2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact (indicative maximum 100 words) <p>By focusing their work on the plight of two indigenous, endangered species in the Grand Canyon, Arizona, the 'Humpback Chub' and the 'California Condor', Wilson's contemporary arts practice, in the project 'Trout Fishing in America & other stories' (TFIAOS), has:</p> <ul style="list-style-type: none"> • Generated new, co-produced films, exhibitions, and artworks to facilitate policy debate and dialogue amongst international decision makers at the UN; • Increased public awareness of environmental concerns, via exhibitions in Arizona, Iceland, and Miami, and through creative practice and storytelling; • enabled conservationists to consider their work in a new way and to utilise arts practice in other conservation efforts; • influenced creative practice on issues of environmental concern. 		
2. Underpinning research (indicative maximum 500 words) <p>Since 2001, Snæbjörnsdóttir and Wilson have been making work in productive response to uncertainties in relationships between animals and humans. This case study's underpinning research was generated through Wilson's invitation to Arizona by the Global Institute of Sustainability (GIS), Arizona State University (ASU). The invitation was preceded by discussions between GIS, ASU environmental scientists, the US Fish and Wildlife Services, and by extension, the latter's dialogue with hunters. Through field trips to Arizona and the Grand Canyon, Wilson observed environmentalists almost exclusively focusing on collecting empirical species data, with delimited informal observations on the broader cultural and social contexts to inform the overall environmental aims.</p> <p>In <i>Trout Fishing in America & Other Stories</i> (TFIAOS), Wilson examined this approach through the lens of conservation efforts for two species – the 'condor' and the 'chub'. Every 'California Condor' individual (native only to the States around the American Southwest) is systematically captured each year for testing and blood transfusions after scavenging lead-ridden carcasses shot by hunters. The native 'Humpback Chub' has declined due to dams, irrigation, dewatering, channelisation, predation by introduced species (typically rainbow trout), pollution, and angling. Conservation efforts involve electro-fishing entire creeks, often to remove the invasive trout, introduced in the 1920s for angling, which remains a lucrative activity). In these examples, conservation efforts of scientists are driven or audited by the collection and processing of empirical data. As artists, we approached the situation more accommodatingly; placing scientific data alongside, and within, cultural and social contexts.</p> <p>Having initiated inter-disciplinary conversations with conservation scientists, our research took the form of being with, observing and interviewing biologists working in the field both at the bottom of the Grand Canyon and at Vermilion Cliffs. The bird scientists we interviewed, being the chief officers of the Condor capture and release programme there, had built up extensive knowledge of all the birds since the programme's inception in 1987. This resulted in R1, which depicted the frozen bodies of lead-poisoned condors, along with testaments from their biologist stewards regarding the particular behaviours and experiences, in life, of each respective bird. Similarly, in the Canyon the chief scientist was interviewed on camera to discuss the scientific and human tensions and paradoxes involved in the electrocution of one species in order to provide habitat for another. Other stakeholders were also interviewed, including recreational anglers. These discussions led to R3, a wall text listing the recorded species [over 2,300] in the Grand Canyon</p>		

including plants, fish, birds, mammals, reptiles, amphibians and molluscs, but excluding, the as-yet-not fully recorded, insects and R5 which created 'window aquaria' using transparencies within the distinctive architectural space of the Gallery. Interviews with various stakeholders contributed to a series of four films (R4a-d).

Central to our research therefore and to the resulting underpinning research, was the seemingly absurd paradox that both species are currently sustained on human conservation life-support systems within an environment that, despite this care and 'stewardship', ironically and tragically, remains humanly hostile to them through hunting practices and ecological damage. In naming the project, we mobilised the title and spirit of the eponymous novella (1967) by US writer Richard Brautigan. R2 documents all aspects of the project including interview transcripts and essays from five contributors, in addition to the artists.

3. References to the research (indicative maximum of six references)

This case study is underpinned by **Wilson1** in REF2 - 'Trout Fishing in America and Other Stories' (TFIAOS) - a multi-component, double weighted output, including an artist's book, exhibitions and installations. Wilson's chief collaborator is Professor Bryndís Snæbjörnsdóttir, (Iceland University of the Arts), and for the last twenty years both artists have been practicing and producing collaborative work in the field of contemporary art on an international stage. TFIAOS was supported financially by the Global Institute of Sustainability at ASU and contributions (via ASU) from US based Foundations. Individual elements of **Wilson1** are provided below to support cross-referencing between different sections of this template.

- R1. Snæbjörnsdóttir/Wilson, '*You Must Carry Me Now*', (2014), 14-part photographic series (image and text). Part of TIFAOS solo installation.
- R2. Snæbjörnsdóttir/Wilson, '*You Must Carry Me Now: the Cultural Lives of Endangered Species*', (2015), Monograph edited by Mark Wilson and Ron Broglio. Published by Forlaget 284, Gothenburg, Sweden. ISBN 978-91-979822-6-9.
- R3. Snæbjörnsdóttir/Wilson, '*The Recorded Species of the Canyon*', (2014), wall text, dimensions 36ft x 9ft, part of TFIAOS solo installation.
- R4. Snæbjörnsdóttir/Wilson, a) '*Knock on Wood*' (2014), film (17 min. 36 sec), a magic-realist film between science and fable, enfolding fieldwork footage in and around the Canyon and in hunting retail outlets, with spoken extracts from Brautigan, Parish and the artists; b) '*Conservation Biologist at Grand Canyon National Park*' (2014), film (21 min. 7 sec), in which fish biologist Clay Nelson recounts the reason, conflicts and tensions intrinsic to the electrofishing programme on the Colorado River, and c) '*A Field Marshal of the Animal Revolution*' (2014), film (10 min. 19 sec), in which the 'Field Marshal' in the spirit of the project, spins historical fact with speculative narrative about an imagined future where scientific data takes its place alongside deep time, wonder – and a facilitating 'not-knowing' and d) '*Have you heard of the humpback chub*' (2014), film (16 min. 42 sec), where a range of responses to the electrofishing programme were recorded. All part of TFIAOS solo installation.
- R5. Snæbjörnsdóttir/Wilson, '*Native Fish Wall*', (2014) site-specific installation, dimensions 45ft x 10ft, part of TFIAOS solo installation.

4. Details of the impact (indicative maximum 750 words)

Impact 1: TFIAOS has generated new, co-produced films, exhibitions, and artworks to facilitate policy debate and dialogue amongst international decision makers at the UN

In a newly edited film form, *You Must Carry Me Now* from TFIAOS (R1) was part of the exhibition 'ÁKALL – CHALLENGE - Art in the Service of Sustainability' (2016) curated by Ásthildur Jónsdóttir (S1). ÁKALL - CHALLENGE featured at the UN headquarters in New York, USA, for the duration of a two week long meeting of the High-Level Political Forum on Sustainable Development in July 2016. The forum had been specifically mandated to follow up and review the implementation of the 2030 Agenda for Sustainable Development and was the first meeting to take place since the adoption of the UN Sustainable Development Goals (SDGs), adopted by all 193 UN member states. It also included a three-day ministerial segment (occurring every four years) at the level of Heads of State and Government.

The exhibition was specifically associated with this event through its pertinent location at the Forum's 'delegate's entrance', utilised by representatives from 145 member states, and allowing R1 to receive particular prominence amongst key decision makers on sustainable development. This presence was further reinforced via pre-recorded audio tours, where Wilson (and other artists) discussed (in five minutes) the ideas behind the work, how it speaks to their perceptual experience, and the nature of the perceptual journey that the audience is invited to experience. Catalogues and books by the artists (including R2) were on display for each of the delegates from the 145 member states. Through these different means of interaction, delegates engaged with the work and research. This was evidenced by Einar Gunnarsson (Icelandic Ambassador and Forum Member) and Nikulas Hannigan (Chair, UN Commission for Social Development which oversees the Forum); expressing how many of these works provoked particularly interesting discussions amongst delegates on the nature of sustainable development and how best to deliver it in harmony with nature (S2).

By taking the art out of traditional galleries and into this space of exchange and collaboration between international leaders, TFIAOS presence served to raise awareness amongst key political decision makers concerned with implementing the SDGs in their own countries (S2). As evidence of its success, the curator was asked to undertake a further exhibition at Scandinavia House in New York where R1-6 were displayed under the title *'Borrowed Time'* (S1) for five months, featuring a number of workshops designed to increase the interest of exhibition guests in environmental factors and community actions.

Impact 2: Public awareness through international exhibitions and engaging young people in creative practice

TFIAOS has highlighted the paradoxical conditions of conservation practice and our need to consider how we live in harmony. In the case of the chub, dam removal would bring habitat benefits, but angling income would reduce, and Phoenix residents would be affected by water scarcity. For the condor, there is an incongruity regarding the lengthy (but necessary) rehabilitations to maintain species survival, and the common (over)hunting practices that indirectly lead to poisoning. TFIAOS has both given a new platform for these various actors (scientists, hunters, rangers), and served to create an accessible means by which members of the public can respond. A review in *StatePress* elucidates: *"TFIAOS is an unusual title [...] but the mission behind it is both massively important and fascinating...The exhibition seeks to make us, as humans, understand our role alongside these, and other animals. We're 'cohabitants', [...] and a single trek through the gallery makes that point very clear"*. (S3)

In making this point, elements of TFIAOS R1-6 were exhibited at three international sites, inviting the public to participate and engage with the work in the expectation of shaping individual attitudes and values regarding human-environmental behaviour. A report from the TFIAOS solo-exhibition at Arizona State Museum (S4) evidences 8,500 visitors over a three-month period (Oct 2014-Jan 2015). S4 also outlines how staff and students in the Museum education department toured 2,237 schoolchildren through the exhibition. Two teacher workshops provided opportunities for using TFIAOS in curriculum delivery. Three public outreach events were held, including three sessions of 'First Saturdays for Family's' (430 children and parents attended), featuring arts and crafts (mini sculptures/posters/print-making), a native bird release, and book readings. One school brought grades 5-8 to the exhibition, and were required to conduct their own research on R3; taking notes and creating art work based on their findings back in the classroom. The 8th grade students debated the pros and cons of saving the Chub and the impact on Arizona. Students created videos on the condor and chub for classmates who did not go on the field trip (S4). Wilson designed a logo: "The Chub's the Thing" which was printed locally in Phoenix on t-shirts and tote bags. These are examples of research-led engagement with young people, typically under-engaged in these fields, leading to increased cultural participation (S4, S5).

The exhibition *'Sagas on Thin Ice'* (S6) was curated by Ombretta Agró Andruff and held at the Bakehouse Art Complex in Miami, Florida, as part of 'Art Basel Miami Beach' (ABMB) (2016-17). ABMB is an international art fair, with 268 of the world's top galleries showcasing modern, contemporary and cutting-edge work. A record-breaking 82,000 visited ABMB 2017. *'Sagas on Thin Ice'* drew on R1-6, and along with other artists, served to comment, highlight and take an activist stand against ecosystems threats, documenting how climate change, often fuelled by human actions, in turn, driven by economic interests, is impacting the natural environment.

Impact 3: TFIAOS enabled conservationists to consider their work in a new way and to utilise arts practice in other conservation efforts

TFIAOS has directly influenced the US National Parks decision to collaborate with non-profit JTLab (Joshua Tree Lab) who explore ways that the creative community can work with the National Park Service to support protected areas. This collaboration supported conservation efforts at Joshua Tree National Park including a tortoise/vehicle collision prevention effort (branding by artists, deployed by scientists). This influence is confirmed by the Deputy Chief and Research Manager at Grand Canyon National Park (S7), who explained how TFIAOS has also been influential in solving the challenges of public lands being 'loved to death' during the Coronavirus pandemic, utilising an interdisciplinary approach with artists and architects to design solutions to disperse visitors but keep them concentrated to reduce resource impacts.

During the development of TFIAOS, S7 had responsibility for conservation efforts in the Grand Canyon National Park and facilitated meetings between Wilson and key scientists working in the Canyon, and attended the subsequent research symposium. The species wall supported this individual to *"put context and skill in a visual space, especially as a manager who has so many species under one's care"*, and the research has influenced her approach to conservation: *"The condor specimen photographs, along with the stories of each individual bird was very powerful and I consider it changed the way I think about connecting people with animal species in danger – by making it personal and making personal connections..."* This is significant in the context of this role, with oversight of conservation practices across nearly 5000 square kilometres of national park: *"[the] experience expanded my horizons and thinking as an applied scientist and public land manager"* (S7).

Impact 4: TFIAOS has benefited the project participants (scientists and anglers) and influenced creative practice on issues of environmental concern

Regarding participant benefit, R1 includes the histories of individual birds documented through photography and narratives as well as the testimonies from the scientists themselves: the individuals working tirelessly to 'save' individual condors as well as the entire species. TFIAOS therefore benefitted the 14 scientists (as participants and practitioners) by bringing their individual (and often highly personal) observations into the public sphere for the first time; using this tool to highlight the emotional connectedness between man and nature.

TFIAOS further benefited 30 anglers, assisting them in engaging with an alternative point of view regarding fishing and conservation (R4d). In contrast to the condor, efforts to conserve the native 'chub' are more haphazard. Whole creeks are 'electro-fished' to transfer the chub upstream and remove the non-native trout; an action little understood or appreciated by anglers. R4d stimulated debate about these practices with anglers; prompting them to consider different points of view on chub conservation, and the ecological need to 'restore' or 'maintain' all species regardless of perceived value. Whilst the condor is iconic and visible, the chub receives significantly less public attention despite its own 'right' to exist in the river. In this context and dynamic, TFIAOS has made visible the plight of *"an un-charismatic species"*, bringing these competing voices into the public domain to aid understanding concerning the scope, complexities and considerations of environmental conservation.

The Chief Research Strategist (GIS) (S8) stated TFIAOS as epitomising *"...what this marriage of sciences and the humanities brings [...] two different ways of understanding the worlds [and] a real revelation of tension(s) [...] and the creation of discomfort that I think we have to learn to embrace, if we're going to carry this conversation on sustainability forward..."*

TFIAOS has therefore captured the complexity of groups all vying for their specific interests and ideas concerning the future of endangered species. By bringing diverse and complex (and often at odds) 'voices' into the public domain, TFIAOS has demonstrated the importance of contemporary art to environmental conservation, decision-making, perceptions, engagement and ultimately, action. There has been an influence on different academic disciplines, as a result of our work. This is elucidated in S9, where the impact is seen by Aglert and Holmberg as "*widening the scope of the cultural imaginary*" and "*sensitising audiences to ecological thought*." This is to say, that through TFIAOS, the complexities of environmental restoration and preservation are made more accessible to the audience (and the reach of this project's audience is expanded in Impact 3).

The book *You Must Carry Me Now* received a distribution grant from Sveriges Kulturråd in 2018, a series aiming to broaden perspectives about living on Earth by facilitating discussion and practice of co-habiting and co-involving. Because of TFIAOS' contribution to public understanding, this grant allowed placement of one copy of the book in each of the 288 public libraries in Sweden, plus many Swedish reference libraries. It is stocked at the bookshops of many international art museums, e.g. Gothenburg Art Museum, Hafnarhusid, Iceland Art Museum, Reykjavík, Anchorage Museum, Alaska etc.

5. Sources to corroborate the impact (indicative maximum of 10 references)

- S1. To support claims in relation to the exhibition 'ÁKALL – CHALLENGE - Art in the Service of Sustainability' (2016) held at the UN United Nations, New York, further details available from Curator. [Corroborator 1].
- S2. Article quoting Icelandic Ambassador and Chair, UN Commission for Social Development on how delegates had engaged with the exhibition. Loftsdóttir, H., (2016, 25th October). The effect of art on people's attitudes [Áhrif listar á viðhorf fólks]. Morgunblaðið - tölublað 249 [The Morning Paper – Issue 249]. <https://timarit.is/files/43770119> (p30). <https://timarit.is/files/43770124> (p31).
- S3. Julien-Rohman, D. (2014, 13th November). 'Trout Fishing' exhibit delves into importance of conservationism. The State Press. <http://www.statepress.com/article/2014/11/trout-fishing-exhibit-delves-into-importance-of-conservationism>.
- S4. Trout Fishing in America and Other Stories. (Oct 4, 2014 – Jan 17, 2015). Solo Exhibition at Arizona State Museum. Curated by Heather Lineberry. Available at: <https://asuartmuseum.asu.edu/content/trout-fishing-america-and-other-stories>. Details of engagement programmes provided in PDF of 'ASU Art Museum TFIAOS Final Report'.
- S5. Testimonial letter from Senior Curator, Arizona State Museum confirming the exhibitions engagement programmes outlined in the ASU Art Museum TFIAOS Final Report. [Corroborator 2].
- S6. Sagas on Thin Ice. (Nov 17 - Jan 21). Audrey Love Gallery, Miami, Florida, part of Art Basel. Curated by Ombretta Agró Andruff. Snæbjörnsdóttir/Wilson works featured: *Matrix #1*, film version of *You Must Carry Me Now* and *nanoq: flat out and bluesome*. Available at: <http://www.ombrettaagro.com/sagas-on-thin-ice>.
- S7. Testimonial letter from Chief Science and Resource Stewardship, Joshua Tree National Park, on impact on the US National Park Service. [Corroborator 3].
- S8. Testimonial letter from Professor, School of Life Sciences (ASU) and Former Chief Research Strategist (Julie Ann Wrigley Global Institute of Sustainability 2010-2018) on the research influencing creative practices and the diversity of audiences engaged. [Corroborator 4].
- S9. Aglert, A and Holmberg, T. (2016). 'Extinction Stories'. Humanimalia - a journal of human/animal interface studies, Volume 8, Number 1. <https://www.depauw.edu/humanimalia/issue%2015/Aglert-Holmberg-Snaebjornsdottir-Wilson.html>.