Perspectives of artist–practitioners on the communication of climate change in the Pacific

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Abstract

Purpose – This study aims to investigate the role of the visual arts for communicating climate change in the context of the Pacific islands, through the perspectives of artists and climate change practitioners.

Design/methodology/approach – As part of an "Eco Arts" project carried out in Fiji, semi-structured research interviews were undertaken with artists and climate change practitioners.

Findings – Participants' motivations to produce art reflected their personal concerns about, and experiences of, climate change. There was an intention to use art-based approaches to raise awareness and promote action on climate change. The artwork produced drew on metaphors and storytelling to convey future climate impacts and aspects of climate change relevant to Fijian and Pacific communities.

Research limitations/implications – The study reports the perspectives of participants and discusses the potential uses of arts communication. Conclusions cannot be drawn from the findings regarding the effectiveness of specific artwork or of arts communication as a general approach.

Practical implications – The research offers suggestions for the inclusion of creative approaches to climate change communication within education and vocational training. A consideration of the perspectives of artist–practitioners has implications for the design and conduct of climate change communication.

Social implications – The involvement of artist–practitioners in the communication of climate change offers the potential for novel discussions and interpretations of climate change with individuals and within communities, which complement more formal or scientific communication.

Originality/value – The present study identifies the motivations and objectives of artist–practitioners involved in climate change communication. The authors highlight the role of personal experience and their

use of artistic concepts and creative considerations pertinent to the geography and culture of the Pacific region.

Introduction

Climate change and a changing environment are among the Pacific region's greatest contemporary challenges, with impacts upon its societies and cultures which are far reaching and already underway (Savo *et al.*, 2016). Geographic isolation, the fragility of ecosystems, limited land resources and depleted marine resources, all contribute to the vulnerability of climate change across the Pacific islands (Weir *et al.*, 2016; Taylor and Kumar, 2016). For those living in the islands of the Pacific, the consequences of climate change include risks to health and livelihoods from extreme weather events and changing weather patterns, as well as threats to food and water security (McIver *et al.*, 2016). Some evidence suggests that climate change impacts are already leading directly to migration within and beyond the region (Locke, 2009) although, for many people, it is not yet seen as a principal concern (Mortreux and Barnett, 2009). A range of other problems are faced across the Pacific in connection with climate change, including inundation of low-lying islands by the sea and beach erosion, flooding and saltwater intrusion to drinking supplies, and impacts on infrastructure (McLean and Kench, 2015; Mimura, 1999; Ellison and Fiu, 2010).

Because of the particular vulnerability of islands in the Pacific to the consequences of climate change, regional bodies such as the Pacific Island Development Forum (PIDF), together with international groupings such as the Association of Small Island States (AOSIS), were along the most vocal advocates for the inclusion of an "aspiration" to keep global temperature rise to within 1.5°C at the 2015 Paris climate talks (Hoad, 2016; although this still fell short of a desire among many for 1.5°C to be set as a harder limit). Indeed, a key driver of the pressure for this target came from the Pacific-wide political demands laid out in the Suva Declaration on climate change, signed in Suva, Fiji, just before the Paris talks (PIDF, 2015).

Although Pacific nations have been in the vanguard of pressing for ambitious action to mitigate climate change, as well as for climate finance to enable adaptation, work commissioned by the United Nations Development Program (UNDP) has concluded that most people in the Pacific islands have a limited understanding of climate change and its potential for harm, with an attendant lack of community participation and decision-making taking place on adaptation (Nunn, 2012).

Because of these shortcomings, Nunn (2012) argues that levels of awareness about climate change need to be raised among individuals and communities in the region. Furthermore, if communities are to access available funding for climate change adaptation and be active participants in national and international climate change debates, then it is essential for people to have both an awareness and informed leadership on these issues at local, national, regional and international levels (Moser, 2014).

Where communities are actively involved in projects that seek to adapt to the impacts of climate change on their livelihoods and resources, this has the potential to lead to positive outcomes such as enhanced food and water security (McNamara, 2013). By contrast, a lack of community involvement can lead to inappropriate or maladaptive changes (Barnett and O'Neill, 2010). Despite this, there has been little practical guidance available on how to effectively communicate climate change specifically in ways that increase community

resilience and capacity to adapt (McNaught *et al.*, 2014; Moser, 2014). Indeed, some commonly used climate change communication strategies have now been shown to be counter-productive, for example where they lead to fear or disempowerment (O'Neill and Nicholson-Cole, 2009).

One way in which public audiences can be drawn to be interested in the subject of climate change is through artistic approaches. Art that addresses sustainability and climate change has been found variously to emphasise an intent to educate, to bring an experiential element to people's understanding, or to encourage mitigation and behaviour change (Giannachi, 2012). Arts projects that consider climate change have typically engaged with the scientific basis and physical realities of climate change, while finding opportunities to explore ways of responding to climate change as individuals and societies (Gabrys and Yusoff, 2012). The prominent, international project *Cape Farewell* has approached this by bringing together artists and scientists during expeditions, leading to numerous exhibitions and events that have set out to communicate the urgency of climate change and to promote societal change (Buckland, 2012; Knebusch, 2008). Other high-profile festivals and programmes of work have also brought together artists' responses to climate change. The Australian *Climarte* festival has included work which sets out to personalise and engender conversation about climate change (van Renssen, 2017). In parallel to the international climate change negotiations in Paris in 2015, a programme of work termed *ArtCOP21* likewise highlighted the role of culture in addressing climate change, including through installations that drew attention to the plight of climate change refugees and visual illustrations of the scale of individuals' carbon emissions (Sommer and Klöckner, 2017; van Renssen, 2017).

In addition to the exhibition of work by professional artists, artistic approaches have been used to raise awareness of climate change at the community level and using participatory methods. By encouraging members of the public to contribute waste plastic to a street sculpture, a local arts group in Austin, USA, has set out to draw attention to the interrelated issues of climate change and ocean pollution; a parallel project in Seattle, USA, entailed local volunteers raising markers at a shoreline to show potential for raised sea levels in the future, a work that Hall *et al.* (2009) describe as conveying a sense of change and foreboding.

Arts projects such as these often incorporate educational or activist aims, as well as an emphasis on finding effective responses to climate change. For example, Randerson (2007) discusses a project based in Rarotonga (Cook Islands), which encouraged schoolchildren to design posters about how to lessen the impact of climate change; their submissions included imagery that drew attention to the negative effects of extreme weather, industrialisation, and livestock introduction upon island life. Similarly, a community arts project carried out in Tasmania, Australia, enabled children to work with artists and educators to produce and showcase artwork on their understanding of climate change and to propose solutions and explore their own agency in addressing this issue (Stratford and Low, 2015).

As the examples highlighted above illustrate, climate change art has the capacity to ask people to think through issues for themselves and to engage with these in a creative, personal and immediate way (Duxbury, 2010; Gabrys and Yusoff, 2012). At its most powerful, art that addresses climate change has the potential to engage society in new and meaningful ways that promote positive changes in people's behaviours and outlooks (Duxbury, 2010; Curtis, 2009).

Of particular relevance for the present study is the nature of art across the Pacific region; this has been described by Watanabe (2013) as reflecting aspects of the collective self and shared identity. Much Pacific art recognises traditional approaches, including performance and use of materials such as barkcloth, while reflecting influences from elsewhere

(Cochrane, 2016). As a response to climate change in the region, Koya (2012) argues that the arts offer the opportunity for social learning as well as cultural expression, for example through discussions on how to reconcile traditional lifestyles with contemporary commercial and individualised pressures. The application of art practice to these ends includes the work of *Laje Rotuma*, a Fijian NGO whose activities incorporate the use of storytelling and visual arts to reflect people's experiences and to raise awareness of marine conservation, as well as projects by communities which have interpreted and addressed environmental issues through styles of music and dance characteristic to the region (Koya, 2012).

Background to the research and methods

There is now a substantial and growing literature on climate change communication and public engagement, including studies that have assessed the general properties that can render it effective or meaningful to particular audiences (Whitmarsh *et al.*, 2012). Largely absent from this literature has been research that explores the role and perspectives of artist-practitioners themselves as contributors to climate change communication. The personal and creative interpretation of climate change is, however, a critical part of the process of making meaning of this complex subject matter. The present study focuses upon the perspectives of a group of artists and communicators working to engage a wider audience with climate change. In doing so, we seek to provide insights into the motives and inspirations that influenced their work.

The research was undertaken during the course of a week-long "Eco Arts" practicum held in Fiji during November 2014. The practicum was funded and enabled by the University of the South Pacific (USP) in conjunction with the Oceania Centre for Arts, Culture and Pacific Studies.

The objectives of the practicum were to develop and evaluate the potential for the visual arts to communicate and enhance public engagement with climate change issues. The project sought to bring together individuals with an interest both in climate change and the visual arts. As such, those participating comprised both professional artists whose work considered environmental issues, as well as sustainability practitioners (including academics) interested in communicating climate change. The arts practicum permitted those present to exchange ideas and to experiment with different techniques for representing climate change. Through formal activities (e.g., activities at a local school and workshops) as well as unstructured creative practice, a series of artworks were developed. These included material produced using digital media, sculpture, painting and photography, some of which were subsequently displayed at an exhibition in April 2015 at the Oceania Centre gallery[1].

Participants at the practicum were all residing in Fiji when interviews took place, with a majority being Fijian citizens; Fiji-resident practitioners from elsewhere in the world (Tonga, UK and Spain) also participated. Seven of ten participants had a primarily arts-based or communications background; the remaining three individuals were employed in climate change research or policy-making but with an active interest in the use of art for communication of climate change. Anonymised summary descriptions of the backgrounds of research participants are given in Table I. Where we refer to participants subsequently, this is by number (e.g. Participant 3 or P3).

The aim of the present study is to identify and articulate the perspectives of those participating in the practicum. This was done to gain insights into their motivations, assumptions and expectations concerning the use of visual arts to communicate climate change, particularly in a Pacific context.

Participant code	Area of expertise and professional background	
P1	Professional graphic designer and climate change communications officer from Fiji. Works using photography and digital media	
P2	Professional artist originally from Spain, resident in Fiji. Works using painting and sculpture	
P3	Professional climate change adviser and doctoral student from Tonga, studying impacts of climate change on health and well-being in Tonga	
P4	Professional artist from Fiji. Works using paint, lino prints and carving	
P5	Professional climate change and bioenergy researcher, with experience exhibiting artworks using installations, painting and sculpture	
P6	Professional artist from Fiji. Works using wood carving and painting	
P7	Professional artist and art curator from Fiji. Works using metal sculptures, print making and wood carving	
P8	Professional climate change officer working in local government, based in the UK	Table I.
P9	Professional artist and art curator based in Fiji. Works using print making, wood and recycling "found" materials	Participants in the arts practicum and
P10	Professional artist from Fiji. Works using paint and wood carving	research interviews

The first author of the present study conducted a series of ten individual interviews *in situ* towards the end of the arts practicum. We sought to examine subject matter ranging from the general (e.g., the role of art in communicating climate change) to the personal and specific (e.g., the role of people's own experiences in informing their approaches) to explore the range of influences upon, and objectives of, art-based communication. As such, the interviews were designed to address the following research questions:

RQ1. What are participants' personal motivations for engaging in climate change communication via the arts?

RQ2. How have participants' own experiences informed their approach to communicating climate change?

RQ3. What aspects of climate change are participants seeking to convey through their art; what are they aiming to achieve through the approaches adopted?

RQ4. What are considered by participants to be the advantages and drawbacks of using art for the communication of climate change?

RQ5. How do participants understand the tensions and interactions between arts and science-based ways of representing environmental problems such as climate change?

RQ6. What do participants consider to be the practical and cultural considerations relevant for the effective and appropriate communication of climate change in the Pacific?

The advantage of using research interviews to address these questions is that it enables us to examine in detail participants' subjective positions on the use of art to communicate climate change – including, but not limited to, the role of their own direct experiences, inspirations, expectations, motives and intentions. Given the centrality of subjectivity and the creative process in the generation of art (Lubart, 2001), we argue that participants' positions on these matters represent an important component within the broader topic of the use of artistic approaches in the communication of environmental issues (Klöckner, 2015;

Dunkley, 2014; Curtis, 2009). Nevertheless, the use of research interviews in this manner is not directly able to assess whether – and in which ways – the visual arts may influence audiences who encounter them, for example, by changing their attitudes towards climate change. A further limitation of the present study to which we draw attention is the relatively small sample size of 10 interviewees; while this has enabled diverse insights to be presented, we cannot consider these to represent an exhaustive set of practitioners' perspectives. We also note that interviewees have differing backgrounds; in particular, some interviewees bring to bear their lifetime experiences as Pacific Islanders, whereas others consider the research questions from a position as formal "experts" based in the region. Our focus throughout the analysis has been to draw out a range of viewpoints concerning key research themes, rather than to separate or compare these according to particular participant characteristics.

A semi-structured interview technique was used, enabling key themes and questions to be addressed, but allowing flexibility for more extensive elaboration or articulation of ideas in line with participants' own reflections and interests (Wolgemuth *et al.*, 2015). Interviews lasted between 60 and 90 min and followed a protocol which began with general, open-ended questions and moved on to asking about more specific topics germane to the research questions. Participants were asked about their own background and interests, their points of view as to the role of the arts in communicating climate change, and their own experiences and expectations.

Participant interviews were recorded and subsequently transcribed for analysis. This was undertaken using template analysis, a form of thematic analysis entailing a systematic and structured approach to assessment of textual data (i.e. the interview transcripts) (King, 2012). Template analysis permits flexibility as regards the particular purpose of a study, allowing themes to be identified that relate both to *a priori* researcher categories – in this case, pertaining to the research questions of the present study – as well as salient themes that emerge from the data (King, 2012).

The content and aesthetic properties of artwork produced by participants for the Eco Arts project is not the principal focus of the present study. However, we refer to the details of individual artworks where this is relevant to draw out the context of a participant's comments, and to provide further background to the project.

Themes arising from research interviews

Here, we outline five themes derived from the analysis of interviews; within each of these we identify sub-themes in relation to the perspectives provided by project participants.

The primary themes identified relate closely to the research questions of the study, as well as salient topics emerging from discussions. We consider each of these in turn, providing supporting evidence and material in the form of participant quotes. Across these themes, we consider participants' perspectives on: the motivations and purposes of using visual art to communicate climate change; the concepts and ideas behind specific pieces of art; the benefits and limitations of using arts-based communication; and additional cultural and regional considerations relevant to participants' practice.

Motivations for undertaking arts communication

The first theme of interest across the interviews concerned participants' motivations for pursuing artistic approaches to the communication of climate change. Within this theme, we refer to participants' rationales for using visual arts in this context; the purposes for which arts communication is used, and the concepts and ideas applied by participants, are considered in subsequent themes as outlined below.

First, Participant 1 articulated his motivations in terms of a desire to highlight areas of life that he valued and that he considered could be lost or affected by climate change. In particular, this participant made reference to his sense that experiences and circumstances taken for granted in his own life were less certain in the future:

> I've been thinking about what I love and what I'll miss about it. For example, if you watch [a child] play on the beach, you think that in future people might not have that same opportunity.

In a similar manner, Participant 2 stressed her concern for those people across the Pacific who are especially vulnerable to climate change. In particular, this participant referred to her anxiety at the potential trauma for those in the islands of Kiribati at risk of losing their land and needing to relocate:

> Something that I'm really concerned about here is that in 50 years this country [Kiribati] may disappear. It's incredible. So the people will have to go to other places; they will lose their identity, their country. What about this psychologically? How will they feel? Imagine you live in Kiribati and someone told you that your country will disappear.

In many instances, participants referred to their own direct experiences of a changing climate in Fiji and the wider Pacific. Although not always articulated as directly motivating art, these were often spoken of with concern and as a preface to participants' interest in communicating and portraying climate change.

One striking example of such an occurrence was given by Participant 3, who discussed at some length the impact of the tropical cyclone that had hit the Ha'apai island group in Tonga, the participant's home country, earlier in the year. As well as a large part of these islands being devastated by this event, Participant 3 referred in particular to the more personal impacts upon people living there:

> So that means there's no home; the plantations were destroyed. So it's a misery. It's so miserable. People are so stressed they don't know how to do – what to do [. . .] You have no idea how stressed the people are. They are really stressed about climate change.

Other smaller-scale but no less personal accounts of the impacts of climate change (as perceived by participants) were also provided. Participant 1 talked both of the flooding of his aunt's house in Fiji and of a nearby town where several graveyards had been flooded by rising sea levels. Participant 4 similarly spoke of how the walkway he used to take to school in his village was now beneath the sea.

A personal concern for the direct impacts of climate change was referred to elsewhere within the research interviews, including in the context of the links between climate change and vulnerable livelihoods in the Pacific. At other times, however, participants referred to more pragmatic and professional motivations for developing artistic approaches. Participant 5, for example, indicated an interest in enabling others to make connections between the causes and consequences of climate change:

> A lot of the issues and the problems that are happening here are not made here. We're having to deal with other people's [actions] basically. So it would be great if people made those connections.

Besides expressing a motivation to use art to communicate climate change, there was the view expressed that the reverse held true, as articulated by Participant 9: "You could look at it the other way around as well – that climate change or environmental problems could trigger or could bring about good art".

A related perspective for developing artistic approaches in this area was offered by two of the Fijian artists involved in the project, in terms of their need to obtain recognition and,

ultimately, income from their art. Participant 6 discussed their life-long interest in promoting traditional Fijian designs in their carving and painting, but also explained the need for their art to sell. Likewise, Participant 4 observed that "it's really hard to be an artist in Fiji [. . .] it's a struggle to do this". Given the difficulties of being able to manage financially, Participant 4 suggested that artistic interpretations of climate change provided an opportunity to achieve an income:

> We Fijians are only a few artists that have come up with the idea to work on communicating climate change [. . .] There are only a few people doing artworks on climate change. So maybe the demand [for] climate change in art may increase my market.

Purpose of art communication

In addition to these motivations, participants also articulated a range of more specific purposes and objectives regarding the use of art to communicate climate change.

Principal among these was an intention to raise awareness about the issue of climate change. This was mentioned by participants both in the context of raising general awareness – for example that climate change is "real" – and with respect to more specific issues such as the need to adapt to particular problems. Participant 4, for example, asserts that he sees his role as an artist to encourage people to "understand" the impacts of climate change.

Although participants at times presented a role for arts communication that was educational or instructive, at other times the use of art to communicate about climate change was presented as an opportunity to catalyse a process of thinking or reflection on the topic. For example, Participant 2 suggested that her art was intended as a form of storytelling, including in reference to a sculpture produced during the practicum, which addressed the stress on freshwater systems in the Pacific (this is discussed further below).

Participant 7 spoke in terms of using arts communication to prompt people to ask critical questions both about the role of human action in causing climate change, and ways of responding to it:

> I'd like to ask the questions, put it out there for people to think about climate change, think about how they are contributing to climate change, think about how they could respond.

The use of an artistic approach to inspire action was mentioned by participants in several places. Participant 3, for example, refers indirectly to adaptation where asserting that "communicating [. . .] through arts is a powerful way of convincing people to respond to the effects of climate change". Participant 4, likewise, suggests that as well as climate change art reflecting a sense of loss, this can also "push people to act at the same time".

Other participants referred to art having the potential to inspire positive responses and emotions in order to better address climate change. Participant 8, for example, mentions that "I would prefer to have a positive response out of any artwork [. . .] I don't feel that negative reactions are helpful, because people will just turn away from them". Similarly, Participant 1 (whose work also encompasses projects to help communities adapt to climate change) expresses the view that "hope" is a desirable response to seek from the use of arts communication:

> At the end of the day climate change is happening, so you can't really feel [angry] [. . .] But you can have hope [. . .] I do feel bitter about it sometimes, but that's not going to work. So it's just giving community members hope that you're doing this not just for now but for your future generation. So what we're doing is trying to give people hope, basically.

Concepts and ideas used in participants' artwork

Having considered what participants see as the more general purposes of using art to communicate climate change, we now turn to the types of concepts and ideas used in their own work. We focus in this section on participants' perspectives on four pieces of art produced during the practicum, each of which presented a different set of conceptual underpinnings in their communication of issues relating to climate change.

One of the artworks we consider here was a sculpture made from found objects, produced primarily by Participant 7. This was an approximately life-size model of an elderly man, assembled from plastic bottles and other wood and metal items found close to the island shore. The figure was designed to appear stooped and decrepit, and clutched a walking stick in one hand.

The participant explained that the sculpture was intended to represent a person who has damaged himself through living an unhealthy life; this was, in turn, presented as a metaphor for society harming itself through climate change as a result of its own actions. The sculpture is further contextualised to the Pacific in terms of illnesses and unhealthy habits endemic to the region:

> There are people who, the doctor says, should stop drinking because it is contributing to your sugar level. The guy [presented in the sculpture] comes home, listens to the doctor because he's in pain [but] after two weeks or so he starts feeling better, he starts taking a drink or two, or three, and then he continues until he gets to feel those pains again. Then the wife takes him to the doctors [. . .] When he feels better he repeats this same thing again [. . .] until the day he gets his leg amputated.

The relationship between this recalcitrant patient and the wider actions of society are explained via the sculpture in terms of a refusal to act in our own interests:

> For this sculpture, although we know that climate change will hit us, that it's hitting us, we won't – some of us won't [change] [. . .] I wanted to show how vulnerable we are to climate change, which we contribute to. Although we're getting weaker, weaker, we won't change our ways for the better. I wanted people to see that if we don't change, if we don't ask ourselves those questions, we don't – we may die, not improving our wellbeing as well as those of others around us.

Further parallels are drawn between the unhealthy character and the damaging aspects of society, again in the context of the Pacific, where Participant 7 relates poor food choices both to individual ill-health and wasteful production practices linked to climate change.

A different approach was taken by three of the project participants in the creation of a sand sculpture of a traditional village close to the sea edge, which was filmed using time-lapse video as the tide covered it. As Participant 6 explained, this enabled the creation of a small-scale simulation of the effects of climate change in a Fijian context:

> [There is] the shape of the Fijian *bure* [dwelling], the playing ground, the pig pen – a set-up of a real Fijian village. Sand is really easy to explain the message of sea rise. What will happen to a village? [. . .] I feel sorry for this village. Let's put ourselves in this situation. If it was a real village, this is exactly what will happen.

It is notable in this instance that although this simple model is based on a potential consequence of physical climate change impacts, Participant 6's reflections on the process were both emotional and personal:

> It really touched me because I was looking at the villages start to wash away, my village, and I can imagine people running away, taking – looking for shelter [. . .] The place where they were

born and brought up the whole of their life, and it is covered by water. This is your village. It's under water. It's really sad. Especially for me, because I'm an islander.

Another sculpture produced, in this instance by Participant 2, was used to articulate concerns about freshwater use and risks to supply. The artist in this case used dead coral, twine and a metal tap (faucet) to produce a scene in which a dehydrated face and gasping mouth is shown trying to obtain a last drop of water. In conceiving of this piece, the artist explained her thought process in terms of a story of what occurs as water supplies run dry: "I think it's a story [. . .] the man [face] and many animals are fighting for the same drop, the final drop [. . .] the face has become dry, converting it to stone".

An artwork developed in the practicum in which elements of sculpture and photography were used, was designed by two participants to illustrate the relationship between consumerism and climate change. In this case, plastic soda bottles were filled with concrete and photographed being set alight against the backdrop of a well-known seascape in the capital Suva. According to the participants who worked on this (Participants 5 and 10), several concepts were incorporated: the parallels between consumption (in economic terms) and the bottles consumed by flames; the remnants of dirty carbon and pollutants from these processes; and the setting of the sea with its significance for island life, as well as the risks from rising sea levels.

Benefits and limitations of arts communication

The advantages of using artistic approaches to communicate climate change were typically articulated in terms of the unique capacity of art to incorporate a role for emotion, to speak to audiences in a different way to technical or scientific material, and for artistic approaches to be able to be left open to interpretation.

Participant 1 discussed the advantages of using art in the context of audiences who may be unfamiliar with, or unreceptive to, scientific communication:

If you can use art and [. . .] present it in a way where you're driven with power and emotion and expression, people will be captivated [. . .] But if a scientist were to come and [talk], it's just going to fall on deaf ears, unless you're a scientist [yourself].

A distinction between the capacities of art and science to communicate climate change was also made by Participant 8, who argued similarly that:

You've got to have a variety of ways of getting information over to different people. Art is one way. There are certain people that respond to [academic] papers and figures and statistics, and there are people that respond to getting involved with making art.

Again, the capacity for artistic approaches to address topics in ways that may be more accessible to those unfamiliar with scientific approaches and terminology – particularly in a Fijian context – was outlined by Participant 4:

Actually, a lot of people don't understand what terms in science mean. So we normally understand English, but a lot of climate change things are coming through in terms of science [. . .] So I think villages, from my point of view as a villager, they understand more in art.

While the emotional component and potential for interpretation and provocation was referred to across the interviews, for Participant 4 this was also considered to have both benefits and drawbacks. In the latter sense, it was argued that differing perspectives on a piece of work inhibited the ability to convey a straightforward message about a topic such as climate change:

As an artist if you've got an idea to put inside an artwork, you don't know if that is the idea of
somebody else [viewing the work] [. . .] So you can't use artwork to send your message through,
unless you talk to him or you just write a piece of paper you stick on the side of your artwork [. . .]
Because we have different views of what is going on inside that canvas.

The limitations and drawbacks of using artistic approaches were also seen often in more
practical and pragmatic terms. In particular, several participants referred to the limited
opportunities and space for audience interaction with artwork in Fiji and across the Pacific
region. In this vein, Participant 1 argued: "Especially if we're talking about the Pacific and
Fiji, the art community is so small, so you only reach a fraction of [the people] you want to
reach".

Cultural and regional considerations
Some important features of culture in Fiji and the Pacific we have considered already – for
example, the impacts already experienced and expected in this part of the world and how
these were integrated in participants' artwork. It is also important to note that "culture" is
not a phenomenon that can somehow be separated either from the lines of argument used by
participants or people's experiences. Nevertheless, it is useful to consider here some
additional aspects referred to directly by participants, in order to place the project and the
role of arts communication in an appropriate cultural and regional context.

First, although the practicum itself and participants' approaches were focussed
upon climate change, for many participants this held meaning and associations beyond
the scientific conception of this term. In particular, across the interviews participants
referred to their concerns about local pollution of the environment and their emphasis
upon this in their art. The problem of plastic was a common thread referred to as
requiring awareness and action, and as illustrative more broadly of a lamentable
disregard shown for the environment – both on land and for the sea. Participant 7, for
example, remarked that "for us in the village setting, with plastics you either burn it or
you bury them [. . .] without realising that it's our plastic bags that kill the turtles".
Likewise, Participant 6 indicated that a message he wished to convey through his art
was "to minimise pollution, whatever you dump in the sea, be careful of dumping
rubbish because the marine life you can damage, you can kill fish".

The importance of Christianity in the Pacific islands was also stressed by several
participants. Participant 3 referred to his own experience that a large proportion of people in
Tonga understood climate change to be under the control of God. Participant 6 also placed
climate change firmly in a religious context, extending to the assertion that climate change
is in this sense "normal" and to the need to pray:

I'm a very religious person. You know what? If you want to get away from this [tackle climate
change] you'd better learn. Climate change – learn it properly and pray to God. Because this is all
God's creation [. . .] [The bible says that] things are going to change slowly and surely and it
marks a coming of Christ. So if [the climate] changes, from my point of view, it's normal, because
it's been there in the bible. For a Christian, if you read your bible you'll know what's happening.

In an extension of his metaphor used to depict the "old man" sculpture, as discussed above,
Participant 7 made broader reference to the tensions between traditional island, village life,
and modern, urban living. In this sense, the issues relating to climate change, environmental
problems and unhealthy or unwise practices, become bound up in the way of life of many
people in contemporary Fiji as Participant 7 sees them:

If you live on an island, the trees will be growing; you'll always have fruit all year round. But
most of us, despite this, will leave the islands. We'll go to the urban centres and we become like

that old man. We drink excessively or we smoke excessively, we eat noodles and canned fish instead of fresh fish.

Perspectives such as these illustrate that the notion of "climate change" and indeed what constitutes art communication cannot be easily delineated. It may, however, be the case that interpretation and portrayal through the arts have a unique opportunity to consider where climate change and other environmental problems intersect with cultural, contemporary and regional issues.

Discussion

Through a series of research interviews undertaken with artists and climate change practitioners, the present study has uncovered a range of perspectives concerning the motivations, hopes and creativity of this group of individuals, who have set out to use artistic approaches in their communication of this pressing issue. We have outlined some of the ways in which the different facets of climate change – whether in terms of physical impacts or in relation to personal experiences or wider social contexts – have informed their points of view. The aims and aspirations of participants were explored, both in terms of the purposes for which they have developed artwork, and the underlying concepts and ideas on which they have drawn. Finally, we have set out to identify participants' views on the benefits and drawbacks of the use of visual arts to communicate climate change, and the cultural contexts within which this has occurred.

An important unifying feature across participant interviews was the way in which climate change is recognised to be a part of the contemporary reality of the Pacific. Whether through reflections upon small-scale, personal changes or by reference to current and future impacts at country and regional level, participants' experience and understanding of climate change informed and motivated their artistic approaches. Such a connection between people's "experience" of climate change and their subsequent beliefs and actions has now been observed more generally across a range of research studies (Reser *et al.*, 2014). Although we do not make strong claims here about a direct causal effect of experience, the present study points to a potentially important but, to date, overlooked role for experience in informing creative approaches and communication of climate change.

Several participants also identified a different set of reasons for engaging in these approaches. This may be summed up as a reversal of a premise that "art" should act in the service of climate change: for some participants, there was recognition of an opportunity instead for this prominent issue to inform their art, or to make it marketable. In the case of climate change inspiring interesting or provocative art, this has been discussed previously by writers such as Nurmis (2016) who stresses the value of climate change art as "essentially artistic" rather than serving an "instrumental" or activist function, such as promoting action or change in attitudes. Here, the role of the arts may also be conceived as enabling new types of understanding (Gabrys and Yusoff, 2012) or offering different ways of imagining and encountering the environment (Duxbury, 2010).

In instances where participants did affirm they wished to pursue particular purposes or ends, a common thread was to raise awareness and/or to prompt people to act on climate change. This view of environmental art as seeking to effect positive change is reflected often in the wider literature, to the extent that it may be seen even as a typical feature of the work of artists operating in this area. Dunkley (2014) for example has argued that a growing trend in arts-based movements in the UK has been an intention to enable a more sustainable society and way of life. Reflecting the position of many of our research participants, McKenzie (2008) has argued that art is invaluable as a form of "cultural education" in the

context of climate change, serving such functions as communicating its likely impacts and helping to support people reducing their own carbon emissions.

As for the concepts applied within the artworks themselves, interviews with participants revealed rich and complex considerations of the relationships between individuals, communities, contemporary ways of life, and the consequences of climate change in the Pacific. In the case of the "old man" sculpture, for example, the role of individual action in causing climate change was recognised, but in terms that saw human behaviour and habits as incorporating tendencies to self-destruction and folly, that were not exclusive to environmental problems.

Both in the case of this piece of art, and other approaches that were presented in terms of storytelling and the use of metaphorical devices, can be found a potentially fruitful approach to engaging an audience with climate change. A series of studies now affirms the advantages of narrative approaches to communicate scientific concepts (Dahlstrom, 2014), including climate change (Fløttum and Gjerstad, 2017). Indeed, the advantages of using an artistic approach were presented typically as enabling different aspects of climate change to be communicated; in particular, to express and use emotion, and to connect with people and ideas in ways that formal, scientific communication could not. In this way, there exists the potential for wider discussions and interpretations to be enabled. The types of concerns articulated across the research interviews – the contradictions inherent within us, the sense of loss from a changing world, and our reliance on consumer society – would seem to be particularly amenable to artistic consideration.

As Crimmin (2008) argues, artists have often seen it as their role to question received notions of progress as well as the relationships between society and the environment. Notions of progress – and the alternatives that may be left behind – were indeed raised directly during the course of the research interviews in the present study and used to highlight aspects of Fijian culture pertaining to the relationship between people and their environment.

It is important, finally, to note the centrality of Christianity to Fijian and wider Pacific culture, and the likely implications this holds for understanding and addressing climate change. Although none of the artwork produced during the practicum had an overtly religious basis, references were made by participants to their own and others' Christian perspectives. Given the implicit ethical and moral dimensions to climate change, including with respect to personal responsibilities and duty towards the natural environment (Posas, 2007), this connection may be a valuable area for exploration in future research and arts practice. The argument for a closer consideration of the role of religion (including but not limited to Christianity) in tackling climate change in the Pacific islands has been taken up by Haluza-DeLay (2014) who suggested that the role of faith is important for understanding how people make sense of climate change, and for developing effective communication in this area.

The present study has focussed upon the perspectives of artist-practitioners, rather than the reaction or interpretation of an audience to this manner of climate change communication. While this is itself a limitation to the research, we suggest that important questions are nevertheless raised by the arguments put forward by the artists, which warrant attention in future research with audiences. In particular, many of the interviewees assert a clear intention to raise awareness, promote understanding, or to convince people to respond to climate change. Despite these aspirations, it cannot be assumed, however, that the artwork produced had the potential to bring about such effects. Indeed, there may be a disjuncture between the desire to inspire understanding and positive responses, and the typical tenor of pieces produced, which for the most part emphasised and represented the

negative or upsetting consequences of climate change. Although the portrayal of harmful climate impacts is commonplace more generally in the communication of climate change, including in visual formats (O'Neill and Smith, 2014), it remains far from clear whether this inspires action or may even be counter-productive (Moser and Dilling, 2012; O'Neill and Nicholson-Cole, 2009). With respect to portrayals of climate change within the visual arts, in particular, Nurmis (2016: 501) expresses alarm about a tendency to utilise "apocalyptic" imagery; this author argues that this "results in art that may be poignant, but falls out of step with the professed motivations of artists". A clear need for future research, therefore, is an assessment of the consequences of artistic communication for those who encounter it, in order to ascertain its efficacy or lack thereof.

Even in a situation where arts communication approaches are able to engage both artists and audiences, a broader question remains as to the potential for such approaches to be utilised and expanded in a practical sense. While it has been argued that the arts thrive in Pacific communities, this has often been in a manner that is poorly integrated with development funds and objectives (Teaiwa and Huffer, 2017).

A recent approach that has sought to integrate the visual arts in a Pacific community context, with these trialled in Vanuatu, is the European Union-funded Pacific Vocational Education and Training in Sustainable Energy and Climate Change Adaptation project (EU PacTVET; Hemstock et al., 2017; Bartlett, 2016). This project has developed teaching resources that aim to explore and apply the perceived personal experiences that learners have of climate change, in order to inform their behavioural responses (such as installing water tanks for rainwater collection) or beliefs (such as whether climate change is a human-induced or supernatural phenomenon). It is hoped that the inclusion of creative approaches to climate change communication in a formal educational environment may yield positive results in this current and ongoing programme of work. In this way, the types of perspectives and insights revealed in the present study may have the potential to offer broader implications for communities in the region.

Note

1. See www.usp.ac.fj/news/story.php?id=1782 for archive of this exhibition's opening.

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