



The Virtual Water Gallery A Science and Art Collaborative Pilot Project

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Overview

We are launching a science and art pilot project, called the “Virtual Water Gallery”. This project aims to provide a safe, inclusive and collaborative space for fully open discussions between scientists, artists and the wider public, to explore past, present and future water-related (scientific) challenges. As part of this pilot project, we are hoping to connect 10 Canada-based artists with GWF teams of scientists, for them to co-explore specific water scientific challenges, identified beforehand by the artists. These collaborations will lead to the creation of art pieces by the artists (with a variety of art media), exhibited online on a virtual water gallery by the Spring 2021, for all to see and interact with. The hope is that these pieces open up discussions about pressing water-related challenges to a wider audience via the gallery space.

Context

Water-related current scientific challenges concern everyone. This project is based on the strong belief that we are all “experts” (in our own ways) in matters that affect us directly, like droughts and floods. Scientific discussions need to be open to everyone and the scientific community needs to engage with a much wider public to be able to find creative and holistic solutions to the water-related challenges we all face (see the [Water Resources Research commentaries](#) for the AGU “Science is Essential” collection about examples of advances in water science for society). This is especially important in these post-factual times, where emotions and beliefs are leading important discussions to the detriment of (uncertain) facts: “Science is just one of many voices in the policy process, one that is at increasing risk of being marginalized and distorted” ([Kirchner, 2017](#)).

In their article entitled [“Five ways to ensure that models serve society: a manifesto”](#), Saltelli et al. (2020) suggest that: “To make sure predictions do not become adjuncts to a political cause, modellers, decision makers and citizens need to establish new social norms.” We believe that art can help co-establish these social norms.

This project aims to provide a safe, inclusive and collaborative space for fully open discussions between scientists, artists and the wider public, to explore past, present and future water-related (scientific) challenges. It will also constitute a permanent and reliable exhibition space via which people can connect, especially important in times of social distancing.

Water-related challenges

Several water-related challenges of societal relevance have been identified through [Global Water Futures](#) (GWF). GWF is a University of Saskatchewan-led research program that aims to provide solutions informed by water science to manage water futures in Canada and other cold regions, where global warming is already altering our landscapes, ecosystems, and water environment.

Explore the following webpages for an overview of the various GWF topics (found at the bottom of each page):

- [Transformative science projects](#)
- [User question-led projects](#)
- [Indigenous community water research projects](#)

Canada is at an important crossroads in terms of tackling water challenges on a regional to national scale. In late 2019, the Government of Canada announced the development of a Canada Water Agency, to be led by the ministers of Environment and Climate Change and Agriculture and Agri-Food (read [this article](#) for more information). They are currently exploring current and projected future freshwater management challenges, including the wider public in these discussions via for example the [PlaceSpeak site](#). Further water-related challenges emerged as part of this process. The wordcloud below highlights some of the key freshwater challenges identified by the wider public (created

scientist is that the aim of this project is to explore water-related challenges objectively, and perhaps even the different ways that exist to tackle these challenges (vs. focusing on a single scientist's perspective). To further ensure objectivity, the artists should engage with scientists and scientific topics they are not yet very familiar with.

Together, the artist and scientists will explore the water-related scientific challenge at heart, to co-create an artistic "narrative" of that challenge (see [this narratives 'cookbook'](#), a guide to creating narratives for communicating challenges and possible solutions). Collaborations will be mostly done via remote meetings. A series of virtual meetings with specific themes will be organized by Louise Arnal to promote conversations and inspire participants creatively throughout the collaborative process.

The outputs will be collaborative art pieces (all art media are allowed) that narrate the challenge explored and its wider context. These art narratives should give the audience an appreciation of the wider context, the challenge and current solutions investigated by scientists. While the narratives 'cookbook' (link above) provides a general framework to achieve this, the art pieces created within this project can be as tangible or as abstract as the co-creators would like them to be. Each art piece will be accompanied by a jargon-free summary of the co-creation process and topic explored (translated to French and English, the official languages of Canada), as well as a short bio of the co-creators.

This collaborative project should also be an opportunity for the artists to question and reflect on the way science is being done currently, expressed with a positive mindset to inspire positive change.

Please note that the co-authors of this project, as co-curators of The Virtual Water Gallery, will provide guidance throughout the creative process.

b. Art exhibition on the Virtual Water Gallery

The final art pieces will be displayed online (via professional videos and photos), as part of the Virtual Water Gallery hosted on the GWF website (the Virtual Water Gallery webpage will be created during the first stage of the pilot project).

Based online, the Virtual Water Gallery will provide a permanent and reliable exhibition space. We have seen how especially important this was during the covid-19 pandemic, when physical art galleries and museums were closed, but when we needed art more than ever to express ourselves, dream, evade and cope with these uncertain times.

c. Public engagement

Through advertising on social media and various other channels, the audience (i.e. spectators-actors) will be encouraged to engage with the artists and the scientists via the pieces they have co-created. They will be given the opportunity to offer potential

solutions, from personal experience, to the challenges presented. As these challenges will be inspired by wider topics taken from discussions with the public, this closes the loop on a fully collaborative process.

This project will promote fully open conversations across diverse groups, relying on the curious and problem-solving nature of humans. It also aims to support people with less confidence and/or at the start of their careers in getting their voices heard.

Project timeline and further details

a. Pilot project

In order to kick start the project, we will invite 3/4 artists (including Louise Arnal), as well as 3/4 teams of scientists to take part in the pilot project.

Key dates: The teams of artist and scientists will have ~6 months (until the end of February 2021) to co-produce an art piece. All art pieces will be exhibited on the Virtual Water Gallery once finalized, after which public engagement will be promoted via the GWF social media and various other channels with the help of the GWF outreach team during the Spring 2021.

Funding: GWF will provide a bursary towards materials (for experimentation, interviewing and creating the final art piece(s)) and travels necessary for the artist to create their piece(s), once their project has been accepted by the co-authors of this project. The exact amount that can be offered to the artist will be decided on a case by case basis, in collaboration with the artist.

Artistic rights: GWF wishes to retain the right to use digital versions of the materials produced as part of this project for presentations, knowledge mobilisations, communications, videos, website, etc. The artists can keep and sell their art.

b. Project revisions

Once the pilot project is complete, participating artists and scientists will be consulted to provide feedback on the project's process and success. Feedback gathered during this discussion will be used to help improve the project before it is advertised more widely.

Examples of measures of success include: Were the artist-scientists collaborations positive and constructive? Were the virtual meetings helpful and inspiring for the collaboration? What did the participants gain through this experience? Are the participants happy with the output they co-created? Do the outputs reflect current water-related scientific challenges as intended? Did the wider public engage with the outputs created? And was this engagement valuable?

c. Opening up the project to everyone

In the Spring-Summer 2021, the revised project will be advertised widely to seek contributions from artists and scientists from around the world.

We will additionally explore the feasibility of displaying pieces at physical exhibitions as well as on the Virtual Water Gallery.