

# Geographies of Hope: Reflections on the Creation of the Museum of Climate Hope

Bill Finnegan, Tina Fawcett, Anya Gleizer

Amid growing concerns about climate anxiety in young people,<sup>1</sup> researchers and practitioners in climate change education (CCE) have called for pedagogies of hope.<sup>2</sup> The Museum of Climate Hope emerged from interdisciplinary conversations at the University of Oxford about creative approaches to CCE in both formal and informal educational settings. This article explores the geographical aspects of this initiative, from the physical experience of walking a museum trail across Oxford to the digital experience of ArcGIS StoryMaps linking stories of climate resilience, innovation and transformation across time and space.

The international scientific consensus is that the climate is changing due to increasing greenhouse gas emissions, primarily arising from the combustion of fossil fuels and land-use change. The Intergovernmental Panel on Climate Change (IPCC) synthesises global scientific knowledge on the causes and effects of climate change and proposes pathways to reduce future climate change. Their reports underpinned the international 2015 Paris Agreement to limit average global temperature rise to 1.5°C if possible, and not to exceed 2°C.<sup>3</sup> The 2023 IPCC report states that in 2011-2020 global surface temperature was 1.1°C above historic levels, and that climate change is already affecting many weather and climate extremes in every region across the globe.<sup>4</sup> This has led to widespread adverse impacts and related losses and damages to nature and people. Pathways that limit warming to 1.5°C or 2°C involve rapid and deep and, in most cases, immediate greenhouse gas emissions reductions in all sectors this decade. Such reductions in emissions are not yet being seen, and without further commitments and action, global temperature rise will exceed 2°C, a frightening prospect.

As CCE emerged from the fields of environmental education and education for sustainable development, researchers have called for ‘participatory, interdisciplinary, creative, and affect-driven approaches to climate change education’.<sup>5</sup> Amid the range of emotions elicited by climate

change,<sup>6</sup> there has been particular interest in hope, especially the cognitive and emotional process of active or constructive hope.<sup>7</sup> Creative and participatory forms of climate education have been found to support trust in self, trust in others, and positive reappraisal, which have been identified as ingredients of climate hope.<sup>8</sup>

Cultural institutions have a critical role to play in developing and delivering new forms of CCE, with Hamilton and Ronning arguing:<sup>9</sup>

*Science, art, and history museums, as well as zoos and aquaria, are places where controversial issues, such as climate change, can be brought forward to large, and sometimes diverse, public audiences because of the privileged position and critical role museums play as social centers for informal learning.*

In the UK, organisations such as Julie's Bicycle, Carbon Literacy Project and The Great Imagining are helping the cultural and creative sectors decrease their environmental impact, while harnessing their power for informal education and cultural change. Recent examples of art-based climate programmes include the Hayward Gallery's [\*Dear Earth\*](#) and Barbican's [\*Our Time on Earth\*](#) exhibitions.

## **Museum Trail**

In May 2022, the [Climate Education Lab](#) at the School of Geography and the Environment convened academics, staff and students from across the University of Oxford to explore more coordinated approaches to CCE research and practice. Participants in this gathering expressed interest in creative and solution-oriented educational experiences that draw on a wide range of academic disciplines. With a small grant for public and community engagement with research, the authors partnered with the six cultural institutions in Oxford's Gardens, Libraries and Museums (GLAM) division and a local secondary school to explore positive, interdisciplinary engagement with climate change through objects on public display in these institutions.



Figure 1. The artwork for the Museum of Climate Hope used as the museum trail branding. Artwork by Anya Gleizer.

The project began with consultations with museum educators, curators and young people about potential objects to include on the trail. For example, at the Oxford University Museum of Natural History, the education and learning team compiled a list of objects in their collection related to the themes of resilience, innovation and transformation. A group of students and teachers in the Oxford Schools Sustainability Network then visited the museum and participated in a scavenger hunt to find the objects and discuss which stories resonated the most with them. Students in the museum's youth forum then researched the two objects chosen – a Eurasian beaver (*Castor fiber*) in a display on evolution and Common swift (*Apus apus*) in a display on conservation – and helped produce the content for each.

The secondary school partner also facilitated the creation of the museum trail and digital content. Cheney School is home to the [Rumble Museum](#), an accredited museum with collections spread across the school's buildings and grounds. Students in years eight and nine (aged from 12 to 14) participating in the extra-curricular museum council visited both the History of Science Museum and Oxford Botanic Garden to help identify objects for the trail. Through a survey to

all Cheney School students, staff and parents, the three objects from the Rumble Museum were chosen – replicas of a Minoan vase and Roman wax tablet, and a collection of British butterflies – with students in the museum council filming short introductions to the objects.



**Figure 2.** Astronomical Compendium by Christoph Schissler (Augsburg, 1588). This object was chosen by students from Cheney School to include in the Museum of Climate Hope trail. © History of Science Museum, University of Oxford (inv.[49036](#)).

Sixteen objects across seven different locations were chosen for the final museum trail. A temporary label with a QR code was designed and printed for each object, with the requirements for this interpretive signage different at each institution. Anya Gleizer created original artwork based on the objects and themes of the museum trail, and this was used as a unifying visual identity. The style of layered, textured paper was also used to create a map of the trail. The QR codes linked to a collection of ArcGIS StoryMaps with the supplemental digital content (<https://climatehope.uk/>). The multimedia content was developed with museum curators, researchers, educators, youth and other partners.

For example, building on the [Wandering in Other Worlds](#) project, the authors recorded a [Zoom interview with Evenki culture carrier Galina Veretnova in Siberia](#). Through this short video, the story of the Evenki reindeer skin parka at the Pitt Rivers Museum was presented in the context of

a living indigenous culture. The museum trail labels were installed and digital content launched in July 2023, with initial promotion to families during the summer holidays.



**Figure 3.** Video introduction to the Evenki reindeer skin parka by Galina Veretnova, Evenki culture carrier from Strelka-Chunya in Evenkia (<https://player.vimeo.com/video/845774549>). Video by Bill Finnegan.

## Public Engagement

Through a variety of activities, a wide range of audiences were engaged with the Museum of Climate Hope. Within the University of Oxford, the authors shared the project through networks of researchers at the Environmental Change Institute and Reuben College. The Ashmolean Museum and Oxford Botanic Garden are both popular tourist destinations, and this foot traffic resulted in a significant number of digital visitors to the StoryMaps associated with these institutions. Two other forms of public engagement were events for families at museums and a walking tour with a local environmental group.

At the History of Science Museum, a nautical-themed ‘Ships and Storms’ event was extended to explore climate change, with demonstrations of climate science and the authors leading a creative activity in which young participants were encouraged to find the three objects at the museum on the trail – FitzRoy storm glass, astronomical compendium, and the bhumigola or earth-ball – and then imagine and draw inventions that could help them be more climate resilient in the future.

At the Festival of Social Science at the Pitt Rivers Museum, the authors conducted an activity in which young visitors imaged different kinds of clothes made of natural materials, inspired by the Evenki reindeer skin parka and Hawaiian feather cloak, and created climate resilient clothing designs using the textured paper from the Museum of Climate Hope artwork. In both cases, the activities led to constructive engagement with a range of ages, from very young children to their parents.



**Figure 4.** Family event at the History of Science Museum, Oxford. Photo by Tina Fawcett.

A very different type of public engagement event, ‘Living in Hope’, was held in partnership with Oxford Friends of the Earth and Modern Art Oxford. A group of both local environmentalists and people curious about the intersection of museums and climate gathered for a two-hour guided walking tour of objects on the trail at five of the seven institutions. The walking tour ended at Modern Art Oxford, where Anya Gleizer was a creative in residence for the [\*Boundary Encounters\*](#) programme, with a lunch, discussion and participatory art activity. This combination of walking the museum trail, discussing local environmental activism, and collaborating on a creative work was positively received by the participants.

While teachers were another target audience, the small budget and short timeframe of the initial phase of this project meant this was limited to a workshop with trainee geography teachers and the authors creating short videos connecting the objects on the trail to the national curriculum in England for history. As there is growing interest and support for teachers to meaningfully incorporate climate change into a wide range of subjects,<sup>10</sup> a future goal for the project is to work with educators to develop materials and provide support for classroom instruction using the content from the Museum of Climate Hope, especially for key stages two (the end of primary school) and three (the beginning of secondary school) in Oxfordshire.

Evaluation has included collection of data on the number of visitors to the digital museum, conversations with partners and feedback from participants on the 'Living with Hope' event. There were over 2000 unique visitors to the digital museum between July - September 2023 and many in-person visitors have seen the objects in the university museums and gardens. Dr Lorna Robinson, founder of the Rumble Museum at Cheney School, reflecting on how pupils across the school were involved with choosing the objects, said:

*It was a very positive project for them to be involved in because they could start to look to a future where things could be better in terms of our engagement with nature and our protection of nature.*

The museum has also attracted international attention, with approaches to learn from Oxford's experience from the American Museum of Natural History and Smithsonian Museum.

## **Discussion and Conclusion**

There are a number of geographic and cartographic themes woven through the Museum of Climate Hope project. For example, a few of the objects on the museum trail represent geographies in different ways. The Sheldon tapestry map of Oxfordshire at the Bodleian Libraries illustrates the rural landscape and importance of rivers in late 16<sup>th</sup> century England. The astronomical compendium, which also is from the 1590s in Europe, includes a map of Central Europe, along with an astrolabe, sundial, compass, wind dial, and other wayfinding tools in a compact, portable design. Of the many historic globes at the History of Science Museum, students chose the bhugola to include on the trail, as the engravings on the Indian brass globe from the 1570s compellingly represented the earth as a whole system, layering geophysical, ecological, social and spiritual elements.

StoryMaps, a multimedia storytelling platform based on the ArcGIS geographical information systems software by Esri, introduced an interactive mapping aspect to the supplemental digital content. A number of options were explored for this digital content, from simple webpages to more sophisticated online exhibitions and mobile applications for museum tours. StoryMaps supported the required multimedia content, as well as the structure of a collection of multimedia stories, but the mapping features also became an important aspect of the storytelling. Interactive maps were consistently used at the beginning of each StoryMap, illustrating the origins of the museum objects. While the scale of these maps is mostly kept at the country level to emphasise the geographic spread of the trail objects, with the option for users to zoom in or out, the map for the Ashmolean Museum indicates the specific location in Oxfordshire where the bronze age cauldron was discovered.

The Museum of Climate Hope wasn't designed for all sixteen objects to be visited consecutively, as that could be logistically difficult for a school trip or family with small children. However, the walking tour of the trail mentioned above provided another layer of geographical experience and context. For example, we walked from the Weston Library, where we viewed the Shikshapatri, a religious text given as a gift by Lord Swaminarayan to the Governor of Bombay, to the Pitt Rivers Museum, where we visited the ahu'ula, a feather cloak given by Kekāuluohi to the Governor of Hudson's Bay Company. A short walk across Oxford – and from a Swaminarayan temple in Gujarat, India to the Kingdom of Hawai'i in the Pacific Ocean – while providing a critical view into the history and legacy of the British empire.

A final aspect of the geographies of hope explored in this project can be thought of as 'worldbuilding'. The artwork of the Museum of Climate Hope, including the stylised map of the experience, created a sense of possibility. Hope theory – the combination of a defined goal and pathways and agency thinking<sup>11</sup> – was also reinforced through the hands-on activities at the public engagement events, harnessing the imagination of young people to generate ideas for scientific inventions and natural clothing. In a time of change, uncertainty, and discontinuity, we can no longer trust our maps to guide us. A geography of hope, however, can help us constructively navigate the impacts of and solutions to climate change.

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## Notes

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