

University of Amsterdam  
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**From Information to Imagination:  
The Role of Museums in Tackling Climate Change**

*MA Thesis*

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## **Acknowledgements**

This thesis originates from my belief that museums can do more in their service to society, and that there are no bigger problems facing society today than those being presented by climate change. I hope this project can, in some way, make a small contribution to the much wider challenges that we face, and might inspire others to do things differently.

I would like to thank those who guided me through this process, most notably my supervisor Manon Parry, for her detailed feedback, motivation and ideas, but also to Hans Mulder, who has provided me with much inspiration over the last year. I am also indebted to those who contributed to the content of this project, without which it would not have been possible, this includes Jennifer Newell, convener of the Museums and Climate Change Network, Chris Garrard, co-director of Culture Unstained, and Henry McGhie, Head of Collections and Curator of Zoology at Manchester Museum, all of whom kindly gave interviews on this topic, also to the members of the Museums and Climate Change Network who participated in my survey, and to Henry Evans, director of Magnificent Ocean, with whom I hope to collaborate one day. Thanks are also due to Mirjam Hoijsink and Bram Kempers for their assistance during early thesis seminars, and to my Museum Studies peers for their endless support and encouragement. Finally, I would like to extend my thanks to the young climate activists, and fellow students around the world who are joining the fight against climate change, for giving this movement the momentum it needs and helping us to imagine an alternative future. I hope I will meet many of you along the way, as I continue to advocate for the role of museums in tackling climate change.

## Introduction: Why Climate Change Belongs in a Museums

On 19<sup>th</sup> February 2019, Swedish climate activist Greta Thunberg, who is one of the figures leading the current student climate protests, tweeted in response to Rob Stokes, an Australian state education minister, that his statements “belong in a museum,” after he warned students against attending an upcoming protest (Fig. 1).<sup>1</sup> Although I share Thunberg’s passion, and her belief that present powers are failing to assure a stable climate future for her and her peers, I do not agree with the subtext of her comment, that museums are places for old and irrelevant ideas. Rather, I believe that museums can not only be viable and relevant institutions for today, but that they can play an important role in tackling climate change.



Fig. 1: Greta Thunberg’s tweet in response to New South Wales Education Minister Rob Stokes, who warned that students and teachers would be punished for partaking in the student climate protests on 15<sup>th</sup> March 2019. Twitter, 19<sup>th</sup> February 2019.

<sup>1</sup> Josephine Tovey, “‘Belongs in a Museum:’ Greta Thunberg Condemns Politician Against School Strike,” *The Guardian*, last modified 20.02.19: <https://www.theguardian.com/environment/2019/feb/21/belongs-in-a-museum-greta-thunberg-condemns-politician-against-school-strike>

Climate change is the biggest problem facing contemporary society as a whole, potentially threatening not only the future of humanity, but the entire planet on which we live. 2018 was a year of climate extremes, with a new record set for the hottest temperature in Africa at 51°C, and Arctic sea ice documented at its smallest since records began in 1979. Some of the deadliest and most destructive wildfires in history occurred in California, Australia and Greece, and fires even spread above the Arctic Circle in areas of Sweden. Meanwhile severe floods led to significant migration, and droughts resulted in huge crop failures and food shortages around the world.<sup>2</sup> All of which demonstrates that climate change is not a distant phenomenon, it is here right now, affecting communities and ecosystems on every continent. However, these incidents also expose the failures of our current systems, as despite such devastation, carbon dioxide emissions continued to increase by 2.7 percent in 2018, which was a further increase on 1.6 percent in 2017.<sup>3</sup>

Current mitigation of climate change remains largely in the domain of science, economics and policy, although the public has doubts and concerns over whether governments are doing enough to deliver effective responses.<sup>4</sup> In 2018 several major climate studies and reports were also released, including the “Fourth National Climate Assessment Report” in the US, the United Nations’ annual “Emissions Gap Report” and the “Intergovernmental Panel on Climate Change’s (IPCC) Special Report on 1.5°C.”<sup>5</sup> All of which sent the clear message that climate change is already happening, it is being caused by human behaviours, and that we can, and have to take action against it immediately. Many of the events seen last year were in line with these types of “expert” projections, and although it is important that our understanding of climate science, the past impacts of climate change and what the future might hold increases, it is not good enough to allowing these extreme events to keep happening in the meantime. Now is no longer a time for reporting, rather we need to start putting our learning into action and producing greater levels of climate change mitigation. To

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<sup>2</sup> Kelly Levin, “2018: A Year of Climate Extremes,” *World Resources Institute*, last modified 27.12.18: <https://www.wri.org/blog/2018/12/2018-year-climate-extremes>

<sup>3</sup> Kelly Levin, “2018: A Year of Climate Extremes,” *World Resources Institute*, last modified 27.12.18: <https://www.wri.org/blog/2018/12/2018-year-climate-extremes>

<sup>4</sup> Henry McGhie, “Climate Change Engagement: A Different Narrative,” in *Addressing the Challenges of Communicating Climate Change Across Various Audiences*, eds. Walter Leal Filho et al. (Basel: Springer Nature Switzerland AG, 2019): 18.

<sup>5</sup> Kelly Levin, “2018: A Year of Climate Extremes,” *World Resources Institute*, last modified 27.12.18: <https://www.wri.org/blog/2018/12/2018-year-climate-extremes>

do this, authorities need to invest energies into addressing the causes of climate change and the forces that are limiting its alleviation, as much as into science and policy making.<sup>6</sup>

The public could play an important role in producing effective climate solutions, from changing their individual behaviours of consumption, to boycotting environmentally violating companies, or lobbying governments. Currently however, there is a gap between the beliefs and actions of a large proportion of the general public and the consensus of the scientific community.<sup>7</sup> This is not a situation which is helped by the mass media, the primary means through which the public receives much of its information about climate change, which often focuses on extremes, and uses language that is intended to generate a sense of fear or hopelessness.<sup>8</sup> The media is also not guaranteed to provide a relative balance between perspectives, and therefore has the potential to promote misleading or inaccurate knowledge.<sup>9</sup> Museums could offer an alternative form of climate change communication, one that moves beyond the potentially crippling narratives of the media or overwhelming government statistics, to empower and encourage audiences to engage in pro-environmental activities.

Museums are trusted sources of information, that people are inclined to believe over the media and the government, which is just one of the traits they could develop in order to become vital agents in tackling climate change.<sup>10</sup> They are organisations that occupy a privileged position in society, as one of the few civic venues where people can meet for open discussion and debate, which are already adept at transmitting knowledge about the world in which we live, and using their collections to facilitate emotive and potentially transformative experiences. As such, they have the potential to do more than simply inform the public, but could inspire and encourage deeper engagement with climate change in their audiences. This could include using objects to tell stories that explore the personal and cultural aspects of climate change, which could foster empathy or connect audiences with what is easily

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<sup>6</sup> Morien Rees and Walter Leal Filho, “Disseminating Climate Change: The Role of Museums in Activating the Global Public,” in *Handbook of Climate Change Communication: Vol 3*, eds. Walter Leal Filho et al. (Basel: Springer Nature Switzerland AG, 2019): 326.

<sup>7</sup> Economic and Social Research Council, “Public Still Doubt Scientific Consensus on Climate Change,” *Economic and Social Research Council*, last modified 13.07.18: <https://esrc.ukri.org/news-events-and-publications/news/news-items/public-still-doubt-scientific-consensus-on-climate-change/>

<sup>8</sup> Media and Climate Change Observatory, “2018 Year End Retrospective,” *International Collective on Environment, Culture and Politics*, accessed on 15.03.19:

[https://sciencepolicy.colorado.edu/icecaps/research/media\\_coverage/summaries/special\\_issue\\_2018.html](https://sciencepolicy.colorado.edu/icecaps/research/media_coverage/summaries/special_issue_2018.html)

<sup>9</sup> Henry McGhie, Sarah Mander and Ralph Underhill, “Engaging People with Climate Change Through Museums,” in *Handbook of Climate Change Communication: Vol 3*, eds. Walter Leal Filho et al. (Basel: Springer Nature Switzerland AG, 2019): 330.

<sup>10</sup> Fiona R. Cameron, Bob Hodge, and Juan Francisco Salazar, “Conclusion: Climate Change Engagement: A Manifesto for Museums and Science Centres,” in *Climate Change and Museum Futures*, eds. Fiona R. Cameron and Brett Neilson (New York and London: Routledge, 2015): 248.

considered a distant problem. As places that promote research, conservation and informal education about our cultural heritage, museums are already well placed to frame and promote new social theories, practices and ideas.<sup>11</sup> Therefore, they could link exhibitions with local climate groups and initiatives, and equip visitors with the resources to get involved outside of their visit.<sup>12</sup> In short, museums are in a position to invite people to think differently about familiar issues, and have the existing tools and skills to start this work immediately.

However, climate change is a phenomenon that is shaped by multiple different agents, therefore solutions should include not only the behaviour of the public, but all of those that hold a stake in the global environment. We need to address the issue at its source, by reducing global emissions and the levels of pollution that are being produced by the fossil fuel industry. The public can play a part in this, by pressuring governments through lobbying and protest, examples of the types of collective action that museums could connect their audiences with, but as a part of the problem that is so embedded into our current systems and processes, effectively addressing our reliance on fossil fuels also requires a much larger institutional shift. As organisations that are connected to a diverse range of stakeholders, museums could also utilise their position between the public, private industry and government. This could involve adopting more environmentally sustainable practices, such as divesting from fossil fuel funding, providing a platform for the sharing of different knowledges, experiences and opinions, or developing links between different groups and organisations for the co-production of innovative solutions.

Today, museums are embracing a role of change agents more than ever, by actively working together, and forging links with other industries. This was recognised in “Sustaining Great Art and Culture: Environmental Report 2017/18,” published in 2018 by Arts Council England in collaboration with climate change charity Julie’s Bicycle, in which Sir Nicholas Serota, Chair of Arts Council England, urged for more arts and cultural organisations to be contributing towards national and international climate targets.<sup>13</sup> The publication cites the IPCC’s special report, which emphasises that global warming and climate change is, and will continue to have an effect on every aspect of life.<sup>14</sup> In other words, we are all responsible for

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<sup>11</sup> Robert R. Janes, *Museums in a Troubled World: Renewal, Irrelevance, or Collapse?* (London: Routledge, 2009): 18.

<sup>12</sup> Fiona R. Cameron and Brett Neilson, *Climate Change and Museum Futures* (New York and London: Routledge, 2015): 1.

<sup>13</sup> Arts Council England, “Sustaining Great Art and Culture: Environmental Report 2017/18,” *Arts Council England*, accessed on 10.12.18: [https://www.artscouncil.org.uk/sites/default/files/download-file/Sustaining%20Great%20Art%20and%20Culture%202017\\_18.pdf](https://www.artscouncil.org.uk/sites/default/files/download-file/Sustaining%20Great%20Art%20and%20Culture%202017_18.pdf)

<sup>14</sup> Intergovernmental Panel on Climate Change, “Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C approved by governments,” *Intergovernmental Panel on Climate Change*, last modified

creating a more environmentally sustainable future, and museums are no exception. Rather, they have a duty to use their power to influence and to inspire, to produce the action that is so desperately required.<sup>15</sup>

This is an opportunity both for the good of the planet and society, but also for museums to reconstruct their social relevance. The International Council of Museums (ICOM) defines a museum as an organisation in the service and development of society, which suggests that institutions need to be responsive to the changing needs of the public.<sup>16</sup> However, as Thunberg's tweet implies, the common demographic of museums, as predominantly white and middle class, persists to undermine the public perception of museums and the value of their work.<sup>17</sup> Climate change is a topic that is of urgent relevance to everyone in contemporary society, therefore engagement in climate issues could present an opportunity for museums to better connect with those who have traditionally been excluded from their space, and to remain integral public organisations. Specifically, museums could strive to change their reputation with young audiences, with Thunberg and other student climate activists, or with the often-marginalised groups who are also those likely to suffer some of the worst effects of climate change, such as indigenous communities. Further to this however, by not addressing climate issues museums risk becoming irrelevant, viewed as places for educating people about the past, rather than useful in the present.<sup>18</sup> In order to effectively mitigate against climate change, we need to reassess the way we view ourselves and our relationships with the natural world. The same is also true of museums, for whom this is a chance for them to re-evaluate their social roles and responsibilities. By taking up the challenges of climate change, museums can create real and impactful public value, and deliver benefits for the environment and society, but also build a stronger purpose and future for themselves.<sup>19</sup>

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08.10.18: <https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/>

<sup>15</sup> Nicholas Serota, "The Arts Have a Leading Roles to Play in Tackling Climate Change," *The Guardian*, last modified 20.11.18: <https://www.theguardian.com/commentisfree/2018/nov/20/arts-climate-change>

<sup>16</sup> International Council of Museums, "Museum Definition," *International Council of Museums*, accessed on 01.02.19: <https://icom.museum/en/activities/standards-guidelines/museum-definition/>

<sup>17</sup> Darlene E. Clover, "Adult Education for Social and Environmental Change in Contemporary Public Art Galleries and Museums in Canada, Scotland and England," *International Journal of Lifelong Education*, 34:3. (2015): 310.

<sup>18</sup> Jennifer Newell, Libby Robin and Kirsten Wehner, "Introduction: Curating Connections in a Climate-Changed World," in *Curating the Future: Museums, Communities and Climate Change*, eds. Jennifer Newell, Libby Robin and Kirsten Wehner. (Oxon and New York: Routledge, 2017): 9.

<sup>19</sup> Henry McGhie, Sarah Mander and Ralph Underhill, "Engaging People with Climate Change Through Museums," in *Handbook of Climate Change Communication: Vol 3*, eds. Walter Leal Filho et al. (Basel: Springer Nature Switzerland AG, 2019): 345.



Although it may be easy and tempting to claim that museums are able to provide a fitting alternative to our current vehicles for delivering climate change mitigation, this task does not come without its challenges. Museums are historically traditional institutions, which occupy a delicate and often unstable position amongst a broad array of social influences.<sup>20</sup> This investigation will examine the work that museums are currently doing, and the wider recognition of the role of museums in tackling climate change, but also ineffective examples of museum climate communication or engagement and the barriers that might prevent organisations from incorporating climate change into their practices or programmes. What follows is an analysis of the different approaches being taken by museums, and to what extent they successfully engage audiences with climate change.

### *Case Studies*

As climate change is a global phenomenon, I had wished this study to also be a global one, however this proved hard to achieve within the scope of this investigation. Although there are museums worldwide that are incorporating climate change into their operations and their programmes, the majority of these, along with the accompanying scholarship regarding museums and climate change, are geographically concentrated around Europe, Australia and New Zealand, and North America. This does not correlate with current data on global pollution and the effects of climate change, and has therefore limited my ability to select case studies that I felt to be globally representative.<sup>21</sup> Instead, I have chosen to focus on two museum cases that are geographically close and contextually familiar to me, as well as one network which represents a global community of museums and interested professionals engaging with climate change. I highlight this compromise as it represents both my own limitations, and that of this subject in general, which I hope will soon be adopted on a much more global scale.

Three themes will be developed roughly in correspondence with my three case studies, which are interrelated and will be returned to regularly. The cases chosen are examples of museums trying to do things differently and incorporating climate change into

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<sup>20</sup> Fiona R. Cameron and Brett Neilson, *Climate Change and Museum Futures* (New York and London: Routledge, 2015): 2.

<sup>21</sup> Union of Concerned Scientists, "Each Countries Share of CO2 Emissions," *Union of Concerned Scientists*, accessed on 24.09.18: <https://www.ucsusa.org/global-warming/science-and-impacts/science/each-countrys-share-of-co2.html#>

their activities. Such strategies necessarily involve diversifying their practices away from those traditionally held by museums, and embracing new museological frameworks, curatorial decisions and collaborations, or by taking new approaches to core activities such as education, research and conservation. For this reason, this study begins in chapter two, which focuses on the diversified practices of Manchester Museum, in Manchester in the UK, and its permanent exhibition, “Living Worlds” that was opened in 2011. As part of the University of Manchester, analysis of this exhibition will concentrate on how the museum has developed its position and characteristics as a university museum, and how it has diversified its practices in response to growing environmental and sustainability concerns. Although not the express theme of “Living Worlds” the exhibition demonstrates how a museum can embed climate change throughout its programming, practices and institutional aims. This case introduces a key argument of this project, that diversified practices may not only enable institutions to effectively communicate and connect audiences with issues related to climate change, but could also become an integral part of more up-to-date museums.

Chapter three examines a contrasting case, “Electricity: The Spark of Life” at Science and Industry Museum, also in Manchester in the UK, chosen as a case that demonstrates another reoccurring theme, the fossil fuel industry’s sponsorship of museums. Fossil fuel companies are at the centre of our present climate crisis, they also currently play a significant role in the funding of museums. As a result, museums have increasingly become the target of environmental activism, which has coincided with the growth in a global fossil fuel divestment campaign. The Science and Industry Museum is part of the Science Museum Group, an organisation that is embroiled in this contemporary issue. My analysis of “Electricity” examines the relationship between the museum, fossil fuel companies, and the construction of public knowledge about climate change, and compares the values of the exhibition’s sponsor to the mission of a museum that is largely targeted at children and young people. This case will be used to consider the wider implications of museum fossil fuel funding, and the opportunities this creates for greater interactions between museums and contemporary social movements.

One final theme is the networked potential of museums, or the role of museums to operate as part of a wider network of climate change mitigation. I suggest that networked collaborations have the potential to be essential responses for any institution engaged in climate change, as an approach to a problem that is beyond the limits of either national borders or disciplines. This strategy is interrogated in chapter four, through the global Museums and Climate Change Network (MCCN), a case that attempts to forge links between

museum professionals and those in other sectors, in order to develop their individual climate commitments, or to produce global, multi-scaler and multi-disciplinary responses. My analysis will focus on the various relationships and interactions that can be facilitated by a network, and how networks could be used to unite diverse and sometimes conflicting stakeholders. Networks could assist with developing climate solutions, and shaping a future role for museums, but could also be an effective way to reconnect with one another as a global community.

### *Scholarship and Methodology*

The developing field of climate change museology promotes a new approach for museums. Today, there is a growing community of professionals working in museums who recognise that environmental issues and sustainability should not be approached simply as topics or themes, but should be embedded into the practices of the museum. There is, however, a disparity between research into the role of museums in tackling climate change and action within institutions. Robert R. Janes is an independent scholar and museum practitioner, Editor-in-Chief Emeritus of *Museum Management and Curatorship*, a Visiting Research Fellow at the School of Museum Studies at the University of Leicester, and the founder of the Coalition of Museums and Climate Justice. He has devoted his career to championing museums as important social institutions, including their role in mitigating climate change, which include his 1995 publication *Museums and the Paradox of Change*. Although Janes' ideas appear foundational to much of the present climate change museology, they had largely remained undeveloped by others until the present decade. For this reason, my analysis draws on the current wave of scholarship produced since 2011, and one of its key figures, Fiona Cameron, Senior Research Fellow at the Institute of Culture and Society at the University of Western Australia, whose study "Hot Science, Global Citizens: The Agency of the Museum Sector in Climate Change Interventions," conducted between 2008-2012, has proved to be hugely influential in this field. This global study aimed to develop new strategies for museums, to enable them to foster effective action on climate change. Research from the project was presented at an accompanying symposium in 2011, where its core

findings were distilled into nine propositions.<sup>22</sup> These propositions emphasised collective action, interdisciplinary working, and the building and sharing of critical information, as ways for museums to shift their role and become “agents of change” in response to the challenges presented by climate change. As such, they have become an accepted framework for subsequent theories, which will be applied throughout the course of my investigation.<sup>23</sup>

Museums and climate change scholarship recognises the difficulties in incorporating some of the more controversial aspects of this phenomenon. For instance, it could be tempting to demonise the fossil fuel industry when considering these issues. On the other hand, it is a much harder task to incorporate their perspective as part of a multifaceted examination. Specifically, this study will examine the ideas of Bob Hodge, a chief investigator on the “Hot Science” project, for whom the two strategies traditionally adopted by museums on the subject of climate change are inadequate. Rather than attempt to remain above controversy, or become embroiled in an unending battle of opinions, museums need to embrace these complexities and uncertainties by adopting strategies based on the principle of “trialogues.”<sup>24</sup> A triologue includes diverse and conflicting perspectives, such as climate-denial or scepticism, so as to neither ignore nor silences these opinions, but to take disagreement and dissent into consideration. This is another way for museums to embrace their unique position between multiple and diverse stakeholders, which, most importantly, puts trust in their visitors to make informed decisions.<sup>25</sup>

However, this is a strategy that should be approached with caution, as contrary perspectives can risk skewing climate narratives. The Smithsonian National Museum of Natural History in Washington was criticised for precisely this reason when it opened its “Hall of Human Origins” in 2010, an exhibition that told the story of how climate change has driven human evolution.<sup>26</sup> Although accepted as a theory amongst palaeontologists, the exhibition was an oversimplification that excluded many other factors from the debate.

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<sup>22</sup> “Hot Science, Global Citizens: The Agency of the Museum Sector in Climate Change Interventions” symposium took place from 5<sup>th</sup>-6<sup>th</sup> May 2011 in Sydney, Australia.

<sup>23</sup> Bob Hodge, “Climate Change and the Museum sector: 10 reflections from the ‘Hot Science, Global Citizens’ symposium,” Western Sydney University, accessed on: 17.09.18: [https://www.westernsydney.edu.au/ics/news\\_and\\_media/blog/180511](https://www.westernsydney.edu.au/ics/news_and_media/blog/180511)

<sup>24</sup> Bob Hodge, “The Triologue Strategy for Mediating Climate Change,” in *Climate Change and Museum Futures*, eds. Fiona R. Cameron and Brett Neilson (New York and London: Routledge, 2015): 135.

<sup>25</sup> “Engaging citizens’ needs, ‘thick’ communication, interaction, dialogue, triologue – not monologues from the powerful” is the 6<sup>th</sup> proposition from “Hot Science.” Fiona R. Cameron, Bob Hodge, and Juan Francisco Salazar, “Conclusion: Climate Change Engagement: A Manifesto for Museums and Science Centres,” in *Climate Change and Museum Futures*, eds. Fiona R. Cameron and Brett Neilson (New York and London: Routledge, 2015): 261.

<sup>26</sup> George Marshall, *Don’t Even Think About It: Why Our Brains Are Wired to Ignore Climate Change* (New York: Bloomsbury, 2014): 99.

Instead, the narrative that the “Hall of Human Origins” promoted was that climate change is a natural cycle, and a positive challenge that humans will adapt to survive, which excluded any discussion of climate change as being a threat in the present. The main criticism launched at the museum was the fact that the gallery was underwritten by the US’ most notorious climate change denier David H. Koch, who protesters claimed had excessively influenced the exhibition.<sup>27</sup> The museum has defended the gallery on many occasions, stating that it had been intended as a paleontological display on the effects of natural climate change, but that it had, rather naively, strayed into the issue of anthropogenic climate change.<sup>28</sup> Although the “Hall of Human Origins” continues to bear Koch’s name, it is unclear as to whether the more contentious parts of the exhibition have been changed.<sup>29</sup> Regardless, the hall’s legacy remains as an example of how, when presented unclearly, and without context, perspective can lead to climate change being wrongly interpreted, or downplayed entirely.

This example demonstrates how climate change can be appropriated in support of a specific ideology, and how such an interpretation discloses more about the perspective of the exhibition’s corporate sponsor than it does about the issue of climate change. It is therefore important for museums to reveal who, or what is framing these ideas, which echoes the current belief that museums need to adopt more transparent and self-reflexive strategies.<sup>30</sup> Today there are a host of movements that uphold the view that museums are not, and never were neutral, and that therefore they have an important role to play as social agents.<sup>31</sup> Such groups call for museums to acknowledge the consequences of both their historic and their contemporary actions, with the aim to show the bias’, and party interests that are potentially inherent in museum perspectives. These movements are largely driven by passionate individuals or grassroots organisations, and exist outside of the institution. However,

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<sup>27</sup> David H. Koch is the Co-Owner of energy and chemical conglomerate Koch Industries. Along with his brother Charles he regularly opposes environmental regulations through funding libertarian advocacy groups.

<sup>28</sup> Smithsonian director Kirk Johnson’s response is summarised by George Marshall in George Marshall, *Don’t Even Think About It: Why Our Brains Are Wired to Ignore Climate Change* (New York: Bloomsbury, 2014): 101.

<sup>29</sup> The last report found by the author which included such criticism was published online in 2017. Hui Liu, “What to Do When You See Science Denial at the Science Museum,” *Greenpeace*, last modified 26.07.17: <https://www.greenpeace.org/usa/see-science-denial-science-museum/>

<sup>30</sup> Museopunks, “Episode 27: Museums Are Not Neutral,” *Museopunks*, podcast audio, July 2018: <https://soundcloud.com/museopunks/s2-ep27-museums-are-not-neutral>

<sup>31</sup> In addition to the global movement for Fossil Free Culture, examples include: Decolonise This Place, an action-oriented movement which stages protests and interventions in museums centering around Indigenous struggle, Black liberation, free Palestine, global wage workers and de-gentrification; P.A.I.N (Prescription Addiction Intervention Now), a group founded by photographer Nan Goldin in response to the US opioid crisis and the sponsoring of cultural institutions by pharmaceutical companies; and From Nope to Hope, a group protesting the links between museums, arms companies and weapon manufacturers. The #MeToo movement has also found its way into museums, via interventions which aim to point out abusive or misogynistic histories in art, and current sexual abuse and harassment cases in museum administration.

museums should not steer away from these groups and their perspectives, rather, they could embrace their campaigns by inviting them into dialogues in their spaces. Although this presents a challenge for museums' traditional ways of working, it is also an opportunity for them to converge with mainstream activism, and to garner the public engagement required for effective climate action.

This could be an example of the type of shift that Cameron and her "Hot Science" colleague's assert is necessary for museums in mitigating climate change. As a globally complex problem, responses need porous boundaries, "liquid" organisations and "clumsy" solutions, thus those engaged should rethink the assumptions and forms of their institutions, across conceptual boundaries and between disciplines.<sup>32</sup> Importantly, this is a strategy that privileges collaboration amongst different stakeholders and communities, whereby organisations function as deliberative spaces for shifting ideas and multiple, sometimes conflicting perspectives. This injunction includes potentially self-undermining strategies, and therefore has affinities with institutional critique, in that it is necessary to question the extent to which the current political and economic pressures of museums is hindering their ability to host or produce meaningful works on climate change.<sup>33</sup> By engaging in such interactions museums might be able to reflect on the perspectives of their corporate sponsors in a more productive way, as one of the different points of view needed to develop new and creative means of engagement in climate change.

This is an example of the type of scholarship that continues to emerge from this burgeoning field, as in the last few years several major titles have been published that theorise the role of museums in tackling climate change. Of these, the following examples have been valuable secondary resources for this project: *Climate Change and Museum Futures* (2015), by Cameron in collaboration with Brett Neilson, *Curating the Future: Museums, Communities and Climate Change* (2017), edited by Jennifer Newell, Libby Robin and Kirsten Wehner, *Addressing the Challenges of Communicating Climate Change Across Different Audiences* (2019) and *Handbook of Climate Change Communication: Volume 3* (2019), both edited by Walter Leal Filho.<sup>34</sup> The pace with which this area of museum

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<sup>32</sup> Fiona R. Cameron, Bob Hodge, and Juan Francisco Salazar, "Conclusion: Climate Change Engagement: A Manifesto for Museums and Science Centres," in *Climate Change and Museum Futures*, eds. Fiona R. Cameron and Brett Neilson (New York and London: Routledge, 2015): 256.

<sup>33</sup> Fiona R. Cameron and Brett Neilson, *Climate Change and Museum Futures* (New York and London: Routledge, 2015): 6.

<sup>34</sup> Brett Neilson is Research Fellow at the Institute of Culture and Society at the University of Western Australia; Jennifer Newell is Manager of Pacific and International Collections at The Australian Museum; Libby Robin is a historian of science and environmental ideas, Emeritus Professor at Fenner School of Environment and Society, and Senior Fellow at the Australian National University; Kirsten Wehner is a Research Affiliate at

scholarship is growing is encouraging, as it reflects a growth in the belief that museums can be a vital part of climate change mitigation.

However, although my research benefitted from the contemporary nature of this material, especially when the subject it concerns is developing so rapidly, it has meant that there is limited literature available that reflects on climate change museology in practice, or the role of museums in tackling climate change from perspectives outside of the humanities. Therefore, in addition to my analysis of projects and exhibitions, I have conducted primary research in order to fill these gaps. Interviews were conducted with people linked to case study institutions, climate change interest groups, or individuals working with climate change in other sectors. Specifically, there was little information available on how networks are currently operating to connect museums and other organisations to produce collaborative climate solutions. For this reason, I conducted a survey of the members of the MCCN, data from which has not only greatly informed my research, but has been provided as feedback to the network convener, Jennifer Newell, to enable her to better understand the reasons why people joined the network, and how they believe the network could be functioning to support this type of work.

My research has uncovered a small, but growing community of professionals who are dedicating their work in, or with, museums to communicating and mitigating climate change. However, my interviews have also revealed that there is often a disconnect between the ideals of literature and activities in reality, as climate change engagement in museums is an area that is frequently led by individuals, who may be confronted with resistance or a lack of resources within their institutions. In other words, it is not yet a widely held belief that museums can be an important tool for helping to tackle climate change, rather this area still has some way to go before climate change is seen as an inherent aspect of museums.

In what follows, I aim to shed light on the different ways that museums are currently engaging with climate change, and how this might offer a new, more effective type of climate change mitigation. By assessing the strength of these different strategies, I consider how they might provide some of the next viable steps for producing wider scale public engagement in climate change, but also how they might secure the future of museums, as a different approach for institutions that are more deeply attuned to the needs of global society.

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## The Two Stories of Climate Change and Museums

In the last decade two narratives have emerged within museums, whose common denominator is climate change. Since 2010, there has been a rise in the prominence of the fossil fuel industry in museums and cultural organisations, especially following the negative press that comes with the large scale environmental catastrophes being caused by oil and gas companies. This trend coincides with a greater movement of climate change museology, as identified in my introduction, through the work of Fiona Cameron. Whilst her study, “Hot Science,” recognised the potential role of museums in climate change mitigation, fossil fuel companies were also recognising the potential of museums to help improve their public image, and gain the approval needed to continue to carry out their environmentally violating activities. This chapter introduces the concurrent development of two of this project’s key themes: fossil fuel funding and museums, and the diversified practices of institutions engaging with climate change. These themes intersect in my analysis of “Living Worlds” at Manchester Museum, and provide the context of this case study’s development.

On 20<sup>th</sup> April 2010, an explosion on the Deepwater Horizon oil rig in the Gulf of Mexico killed 11 people, and caused a catastrophic leak that could not be stopped until 15<sup>th</sup> July. In that time, an estimated 4.9 million barrels of oil was released into the sea spreading across 3,850 square miles of coast, an area that contained over 8,332 different species. The incident caused huge damage to the reputation of BP, the company that owned the rig, who were fined \$69 billion dollars for the event. Between April and June of 2010, the company lost \$105 billion dollars of its market value, and 847,730 people “liked” the Facebook page “Boycott BP.” The company became synonymous with an environmental disaster that remains unsurpassed to this day, as the largest marine oil spill in history.<sup>35</sup>

Following Deepwater Horizon, BP pulled much of its UK marketing, but has since returned with a plan that focuses on the company’s cultural offerings. In 2012, online business and media magazine *Campaign* reported that BP had made plans for advertising that intended to showcase their contributions to society. This included publicising the company’s long-standing partnership with the Royal Opera House and the British Museum, as well as a

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<sup>35</sup> Figures quoted from Alice-Azania Jarvis, “BP Oil Spill: Disaster by Numbers,” *The Independent*, last modified 14.09.10: <https://www.independent.co.uk/environment/bp-oil-spill-disaster-by-numbers-2078396.html>



major new campaign to promote its sponsorship of the London 2012 Olympic Games.<sup>36</sup> In other words, after the catastrophe, BP aimed to use arts and culture in a bid to repair its name.

Oil company sponsorship of museums is controversial, as it is a form of corporate greenwashing. Greenwashing is the cynical use of culture by corporations, mainly big polluters, as a tool to improve their public image.<sup>37</sup> Such strategies aim to protect the company's reputation, distract attention, and buy public acceptance, with the ultimate goal of obtaining a social license to operate. This social license relies upon the public perception of companies as responsible, and integral to society and our daily lives. By creating the belief that their actions are aligned with the best interests of wider society oil and gas companies receive the tacit consent that they need to pursue high-risk and potentially destructive extraction projects. Additionally, by sponsoring museums, companies frame themselves as generous philanthropists who help to sustain the cultural sector, although in reality these donations only make up a tiny part these corporations businesses.<sup>38</sup> As an example of corporate greenwashing, BP's cultural endeavours in the aftermath of Deepwater Horizon became an important landmark in the contemporary debate surrounding museum-fossil fuel partnering.

This issue reached a peak in early 2011, when the London Science Museum opened an exhibition that prompted much debate. "Atmosphere" is the museum's climate science gallery, which, at the time of opening, was sponsored by Shell. Like all other major oil companies, Shell lobbies against measures to tackle climate change that would restrict its business.<sup>39</sup> Similarly, a series of emails published in *The Guardian* after "Atmosphere's" opening appear to show that the company sought to directly influence the content of the exhibition in order to avoid any negative framing of Shell's operations.<sup>40</sup> This raised questions regarding Shell's role in the museum's communication of climate change, and the role of the Science Museum as part of the oil company's public branding. As a result, these

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<sup>36</sup> John Reynolds, "BP Seeks 'More Positive' Sentiment with Return to Advertising," *Campaign*, last modified 20.11.12: [https://www.campaignlive.co.uk/article/bp-seeks-more-positive-sentiment-return-advertising/1160524?src\\_site=marketingmagazine](https://www.campaignlive.co.uk/article/bp-seeks-more-positive-sentiment-return-advertising/1160524?src_site=marketingmagazine)

<sup>37</sup> Pal Ahluwalia and Toby Miller, "Greenwashing Social Identity," in *Social Identities*, 20:1. (2014): 1.

<sup>38</sup> Chris Garrard, interview by the author, email correspondence, 11<sup>th</sup> January 2019.

<sup>39</sup> Culture Unstained, "Complaint to the Science Museum Group," *Culture Unstained*, accessed on 12.11.18: <https://cultureunstained.files.wordpress.com/2018/07/formal-complaint-to-the-science-museum-group-final1.pdf>

<sup>40</sup> Terry Macalister, "Shell Sought to Influence Direction of Science Museum Climate Programme," *The Guardian*, last modified 31.05.15: <https://www.theguardian.com/business/2015/may/31/shell-sought-influence-direction-science-museum-climate-programme>

revelations have become a well-known scandal within the museum sector, which no doubt contributed to the lapsing of the Science Museum's Shell partnership in 2015.<sup>41</sup>

Manchester Museum opened its new permanent gallery, "Living Worlds," only months after the controversy surrounding "Atmosphere." On 14<sup>th</sup> April 2011, the museum unveiled "a new type of natural history gallery," that aimed to better connect its collection with contemporary issues relating to the environment and sustainability.<sup>42</sup> The exhibition is a human-centred natural history gallery, which explores the relationship between people and the natural world, especially how we affect nature and how nature affects us. The exhibition is an expression of the museum's mission, to use its international collection of human and natural history for enjoyment and inspiration, and to provoke debate and reflection about the past, present, and future of the Earth and its inhabitants.<sup>43</sup> The two main themes of the museum are promoting understanding between cultures, and developing a sustainable world. Both of these themes can be related to climate change, as demonstrated in "Living Worlds" through a number of diversified museum practices.

The museum is part of the University of Manchester, and the institutions share a series of goals relating to social responsibility.<sup>44</sup> As part of this the museum developed a programme of activities relating to biodiversity and environmental sustainability, which in the lead-up to "Living Worlds" included collaborating with Manchester City Council's Environment Strategy Team on projects that aimed to bring people into contact with nature. This included the project "From Grey to Green," which involved the museum using its heritage collections to connect objects with current environmental sustainability and conservation initiatives.<sup>45</sup> "Living Worlds" was developed in order to continue this type of work, which is part of the organisations ongoing aims to explore environmental sustainability through people's various relationships with nature.<sup>46</sup>

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<sup>41</sup> Adam Vaughan, "Science Museum Ends Sponsorship Deal with Shell," *The Guardian*, last modified 12.11.15: <https://www.theguardian.com/business/2015/nov/12/science-museum-ends-sponsorship-deal-with-shell>

<sup>42</sup> Henry McGhie, "Living Worlds at The Manchester Museum," in *A Handbook for Academic Museums: Exhibitions and Education*, eds. Stefanie S. Jandl and Mark S. Gold (Edinburgh and Boston: MuseumsEtc, 2012): 223.

<sup>43</sup> Manchester Museum, "Strategic Plan 2015-18," *The University of Manchester, Manchester Museum*, accessed on 14.11.18: <http://documents.manchester.ac.uk/display.aspx?DocID=24713>

<sup>44</sup> The University of Manchester, "Manchester 2020: The University of Manchester's Strategic Plan," *The University of Manchester*, accessed on 11.12.18: <http://documents.manchester.ac.uk/display.aspx?DocID=25548>

<sup>45</sup> Manchester Museum, "Annual Performance Review 2010/11," *The University of Manchester, Manchester Museum*, accessed on 14.11.18: [https://issuu.com/manchestermuseum/docs/apr\\_museum\\_2010-11\\_final\\_as\\_sent](https://issuu.com/manchestermuseum/docs/apr_museum_2010-11_final_as_sent)

<sup>46</sup> Henry McGhie, interview by the author, email correspondence, 10<sup>th</sup> December 2018.

“Living Worlds” is the result of a radical renovation of Manchester Museum’s former “Mammals Gallery,” which had remained unchanged for over twenty years. The museum was granted funds from the “Raising the Game” funding programme from the Northwest Development Agency, which provided grants for projects that raised the standard and profile of Manchester’s cultural offerings. The two main stipulations of the funding were innovation, and attracting an increased number of visitors to the region. Premier special events company, Villa Eugénie, were perhaps an unconventional choice of designer to help achieve these aims, better known for their collaborations with major fashion brands than museums. However, museum staff believed that a perspective from the creative industries would enable them to produce not only a modern and innovative redesign, but that the company’s reputation would also generate publicity.<sup>47</sup>

The outcome is an exhibition that uses the museum’s existing collection, but increases scope for visitors to explore contemporary topics relating to the natural environment. The designers have embraced the original architecture and charismatic atmosphere of the space, but added modern interventions which complement and reinforce existing features. Wood and iron display cases are reinstated with neon signs that guide visitors to themes, such as “peace,” “symbols,” or “disasters,” and the naturally dark gallery is enhanced through dramatic lighting that picks out individual specimens (Fig. 2). These touches assist the exhibition’s creators to reimagine a traditional natural history gallery to include modern human influences. This is furthered by juxtaposing natural and human objects within the same display, or by replacing taxidermies with manmade facsimiles, such as teddy bears or paper cranes. In doing so, “Living Worlds” retains a sense of its original purpose, but allows for greater connections to be made between nature and society.

Interconnectedness is the core guiding principle of the gallery, both thematically and structurally. Head of Collections and Curator of Zoology, Henry McGhie, who was project lead for “Living Worlds,” explains that it was constructed to demonstrate that all living things are interconnected and interdependent, that each of us relate to nature in different ways, that humans have had a negative impact on the environment, and that, above all else, our choices have wider implications for the natural world.<sup>48</sup> For these reasons, “connect” is the first

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<sup>47</sup> Henry McGhie, “Living Worlds at The Manchester Museum,” in *A Handbook for Academic Museums: Exhibitions and Education*, eds. Stefanie S. Jandl and Mark S. Gold (Edinburgh and Boston: MuseumsEtc, 2012): 231.

<sup>48</sup> Henry McGhie. “Living Worlds at The Manchester Museum,” in *A Handbook for Academic Museums: Exhibitions and Education*, eds. Stefanie S. Jandl and Mark S. Gold (Edinburgh and Boston: MuseumsEtc, 2012): 229.



Fig. 2: Exhibition view showing the existing nineteenth century features of the gallery, and the neon signs and dramatic lighting that were added during the 2011 renovation. “Living Worlds” at Manchester Museum, Manchester, UK, December 2018.

theme that visitors encounter on entering, a display that introduces them to the entire ethos of the gallery, and gathers several of its reoccurring themes (Fig. 3). Although each display is treated independently, as a stand-alone installation with an individual theme, all can be connected to broader topics relating to the environment and sustainability.

Climate change is one of the topics which can be explored across the gallery’s various themes.<sup>49</sup> By demonstrating multiple connections between humans and nature, “Living Worlds” firmly establishes climate change as a human-induced phenomenon. As an example, “resources” presents taxidermies of “useful” animals, but displays them against the backdrop of a domestic household interior. In doing so, the creators of “Living Worlds” make a link not only between the animal and its use, but between the natural-human object and the daily lives of visitors. Further to this, by including harmful and toxic human objects, such as cleaning chemicals and garbage, the display implies that these human activities are having a damaging effect on the natural environment (Fig. 4). This continues in the neighbouring “weather” display, which contains objects and facts relating to climate change. Specifically, by presenting a vial of crude oil as both a natural and a human object the exhibition makes a

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<sup>49</sup> McGhie, interview.

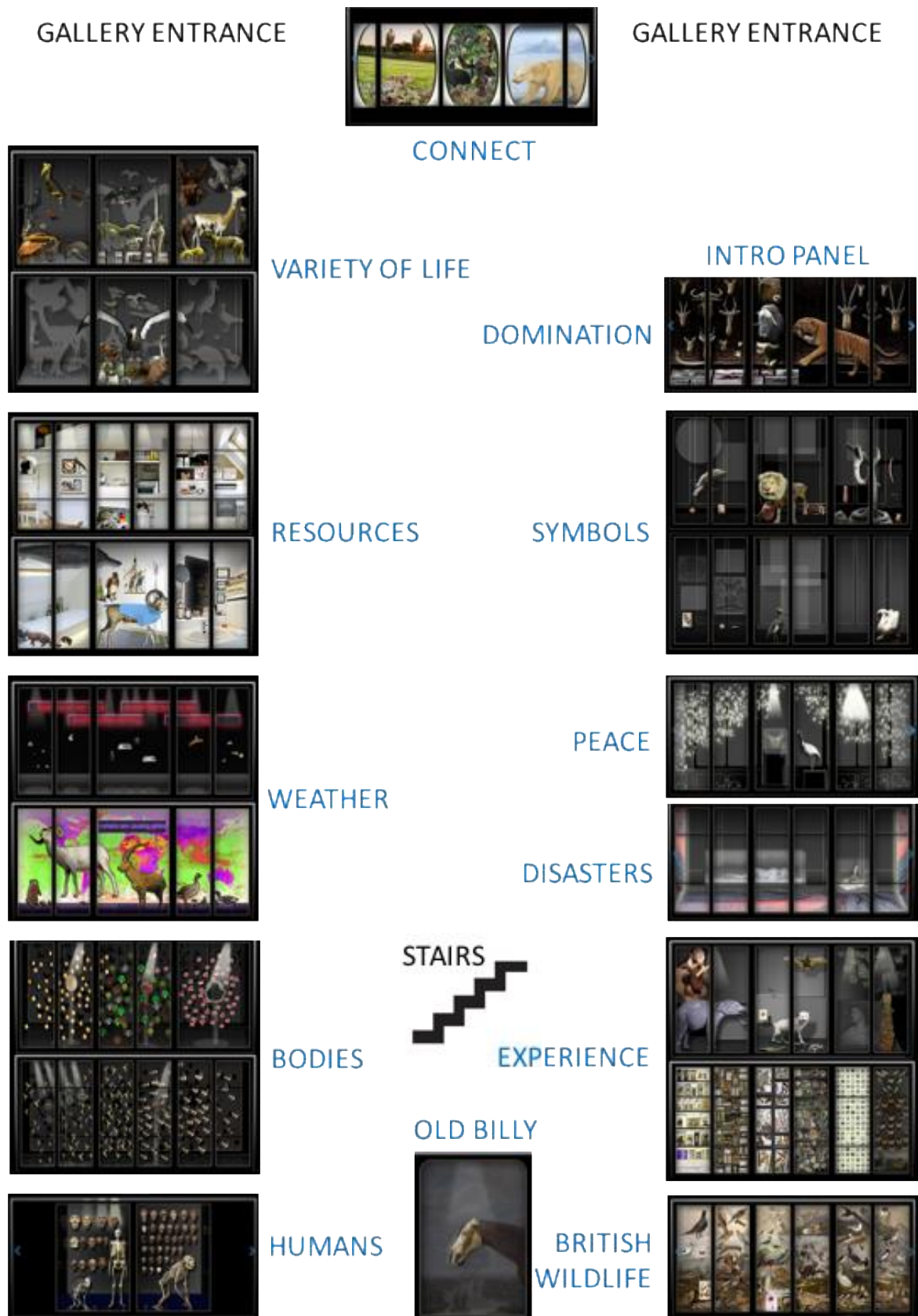


Fig. 3: Floor plan of “Living Worlds” at Manchester Museum, showing that “connect” is the first display that visitors encounter when entering the space from the main entrance.



Fig. 4: Exhibition view of "resources" display case, showing taxidermies and human objects against the back drop of a domestic household interior. "Living Worlds" at Manchester Museum, Manchester, UK, December 2018.

direct connection between our consumption of natural resources, and some of the most devastating effects of climate change (Fig. 5).

Sarah Sutton, who runs a sustainability consultancy organisation, Sustainable Museums, claims that it is no longer enough for museums to simply inform the public about climate issues, rather museums need to actively equip their visitors with the knowledge and



Fig. 5: Exhibition view of “weather” display case, showing taxidermies against CO2 map and a vial of the fossil fuel crude oil, which was donated to the museum by BP. “Living Worlds” at Manchester Museum, Manchester, UK, December 2018.

skills to become citizens of change.<sup>50</sup> This requires museums to re-evaluate the traditional role of their visitors, whereby audiences are no longer passive consumers of information, but are activated to think for themselves and to draw their own conclusions. The interactions in “Living Worlds” between “resources” and “weather” are an example of how the gallery engages its visitors with climate change, by setting up displays that visitors can identify with,

<sup>50</sup> Sarah W. Sutton, Elizabeth Wylie, Beka Economopoulos, Carter O’Brien, Stephanie Shapiro and Shengyin Xu, “Museums and the Future of a Healthy World: Just, Verdant and Peaceful,” *Curator*. 60:2. (2017): 157.

which enables them to make connections between objects and contemporary issues. Incorporating objects that are familiar to visitors assists the museum to make what can easily be perceived as a distant issue relatable for British audiences, and highlights that they too can help to solve the problem. However, by focusing on individual behaviours “Living Worlds” risks ignoring the other factors that contribute towards climate change, such as the pollution caused by the fossil fuel industry. As an issue of contemporary significance during the time of the exhibition’s development, its inclusion in the gallery would have been strikingly relevant.

This strategy is continued in the gallery’s online accompaniment, the “Living Worlds App,” which the museum developed to extend visitor experiences beyond their visit. The app enables visitors to co-create their own learning experiences, by selecting from different levels of interpretation and links to additional information, but also to become participants in related environment and sustainability initiatives (Fig. 6). For example, “resources” sign-posts visitors to “100 ways to save the planet,” a guide to living more sustainably, meanwhile “weather” links to ARKive, a leading digital resource on endangered species, and ongoing museum partnership about loss of biodiversity.<sup>51</sup> In doing so, the app provides visitors with the tools that they need to become “climate activists,” having been engaged, inspired and encouraged by their experiences within the museum. However, there is no current data to measure its actual impact on visitors, or the extent to which it facilitates their activism. In addition to this the experience of using the app proved inconsistent, as some links appeared to be inactive. In other words, although in theory the app is an effective toolkit, without regular reporting or maintenance its full potential for extending engagement is neglected.

The app also enables the museum to build new relations to new publics, who might not be able, or inclined, to visit in person. This is one of the propositions identified by Cameron in “Hot Science,” as a way for museums to engage effectively in climate change topics. Climate change affects us all and is therefore everyone’s responsibility, thus broader and more diverse social outreach should be a key part of museums’ climate change strategies.<sup>52</sup> Therefore, if managed effectively, “Living Worlds” could facilitate a process of ongoing, and wider engagement through online, open access information.

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<sup>51</sup> Manchester Museum, “Welcome to Living Worlds – App,” *The University of Manchester, Manchester Museum*, accessed on 12.11.18: <http://www.museum.manchester.ac.uk/visit/galleries/livingworlds/app/#/home>

<sup>52</sup> “Build new relations to new publics” is the ninth proposition for museums to engage in climate change mitigation, from the “Hot Science” study. In Fiona R. Cameron and Brett Neilson, *Climate Change and Museum Futures* (New York and London: Routledge, 2015): 262.



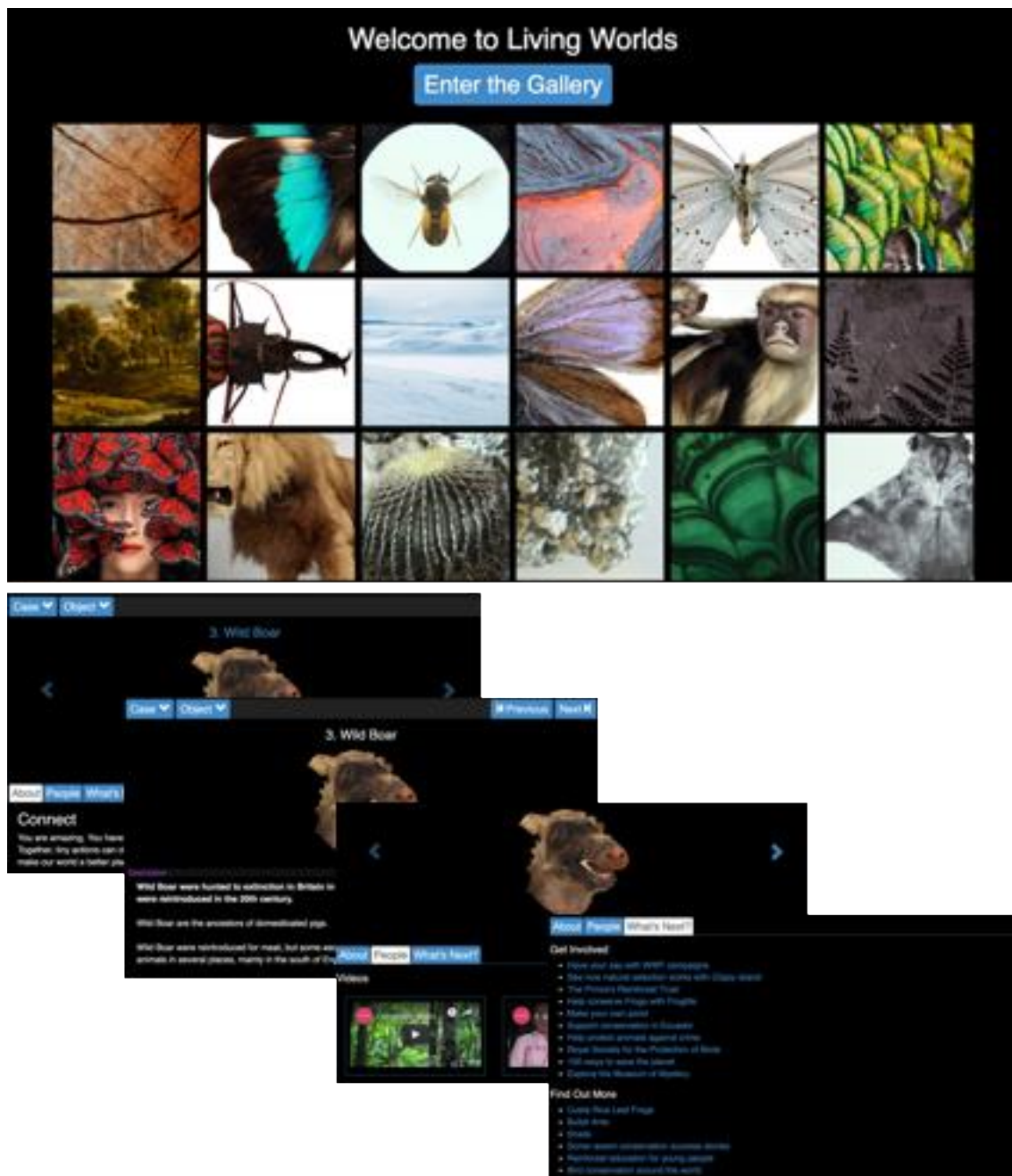


Fig. 6: Screenshots from “Living Worlds App,” showing homepage, case information view, object information view, additional museum resources, and external links. “Living Worlds App,” December 2018.

By collaborating with their audience and partner organisations, “Living Worlds” has the potential to act as a platform for cross-disciplinary, multi-agency problem solving. Many of the exhibition’s texts are authored by University of Manchester academics, or other environment specialists, therefore presenting visitors with a range of different views and perspectives. In addition, the gallery enables the reinterpretation of some of climate change’s more perplexing aspects, with the result that they are communicated to a wider general

audience. As an example, the main text panel for the “weather” display is written by Lorenzo Labrador, an Atmospheric Scientist, who explains his practice and the process of global warming in plain and understandable language. Thus, “Living Worlds” demonstrates how the museum could act as a unique public space, where the knowledge and perspectives of diverse environmental stakeholders could be collected and presented to not only inform, but potentially activate audiences. By connecting different communities and disciplines in this way, the exhibition aids the collaborative search for solutions that Cameron asserts is required for climate change, as one of society’s most far reaching and complex problems.<sup>53</sup>

“Living Worlds” was well received, both by the public and across the cultural sector. Press reviews complimented the exhibition on its visual and thematic innovation, and formal evaluation of visitor feedback showing the strategic success of the redevelopment, was promising.<sup>54</sup> Significantly, 37% of visitors reported to be more likely to become involved with activities relating to environmental protection, demonstrating that, at the time, “Living Worlds” was effectively engaging audiences with issues of biodiversity and sustainability, and activating individuals to do more beyond their visit. Additionally, 89% of visitors surveyed viewed the redevelopment as a success, 83% considered it inspiring, and 84% consider it to be accessible.<sup>55</sup> The gallery also received a number of professional accreditations, which recognise its achievements in both design and sustainable development. “Living Worlds” was shortlisted for a “Museums + Heritage Permanent Exhibition Award 2012” and in the Design Week Awards 2012 in the “Exhibition Design” category. It was also selected by leading museum professionals as one of the “50 Best Museums and Galleries in the UK,” a list published in *The Independent*, and nominated for an award from The Alliance for Sustainability Leadership in Education (EAUC), which champions sustainability in UK colleges and universities.<sup>56</sup> These responses to “Living Worlds” position Manchester

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<sup>53</sup> The first proposition from “Hot Science” is that “climate change is too important to deny and too complex to reduce to a single analysis of problem.” In Fiona R. Cameron and Brett Neilson, *Climate Change and Museum Futures* (New York and London: Routledge, 2015): 250.

<sup>54</sup> Headlines include: Culture24, “In Pictures: Manchester Museum Courts Hugo Boss Designers for New Living Worlds Gallery,” *Culture24*, last modified 18.04.11: <https://www.culture24.org.uk/science-and-nature/art354323>, and BBC News, “Fashion Makeover for Manchester’s Living Worlds Gallery,” *BBC News*, last modified 13.04.11: <https://www.bbc.com/news/uk-england-manchester-13065802>

<sup>55</sup> Manchester Museum, “Annual Performance Review 2011/12,” *The University of Manchester, Manchester Museum*, accessed on 14.11.18: [https://issuu.com/manchestermuseum/docs/apr\\_manchester\\_museum\\_\\_2011-12\\_final\\_as\\_submitted](https://issuu.com/manchestermuseum/docs/apr_manchester_museum__2011-12_final_as_submitted)

<sup>56</sup> Manchester Museum, “Annual Performance Review 2011/12,” *The University of Manchester, Manchester Museum*, accessed on 14.11.18: [https://issuu.com/manchestermuseum/docs/apr\\_manchester\\_museum\\_\\_2011-12\\_final\\_as\\_submitted](https://issuu.com/manchestermuseum/docs/apr_manchester_museum__2011-12_final_as_submitted)

Museum as a leading example for organisations committed to creating a better world for people and for nature.

Only six days after “Living Worlds” opened, however, the museum became a site of protest. On 20<sup>th</sup> April, one year after the Deepwater Horizon disaster, students from the University of Manchester entered the museum to demonstrate against BP’s sponsorship of “China: Journey to the East.” The temporary exhibition was a travelling production from the British Museum, but protestors felt that it was inappropriate for the museum to host the BP partnership, which they denounced as greenwashing.<sup>57</sup> There is no evidence to suggest that this event affected the reputation of either “Living Worlds” or the museum, however their coincidence highlights how a museum’s corporate partnering can risk undermining its message. McGhie explains that Manchester Museum does not take a stance on what other institutions should be doing regarding the debate surrounding museums and fossil fuel sponsorship. They themselves, consider activities on a case-by-case basis, therefore, I view the fact that the museum has not collaborated on a fossil fuel funded project since “China: Journey to the East,” either with the British Museum or any other organisation, as evidence of this issue having some influence on the museum.<sup>58</sup>

Since opening, “Living Worlds” has acted as a springboard and focal point for a comprehensive programme of public events. Examples include, the “Museum Allotment,” a project that opened in connection to the gallery, that invited audiences to think about how we can shape the future through our choices, such as food production. “The Museum of Mystery” was an online educational resource that featured “curriculum-based science mysteries,” and the “ExtInked” exhibition raised funds and created awareness about changing ecologies and loss of biodiversity, by permanently tattooing one hundred volunteers with images of endangered and extinct species.<sup>59</sup>

In their strategic plan from 2015-18 the museum states its aim to continue to engage people in some of the major issues we face in terms of climate change. Further to this it claims that it is no longer sufficient to show the world as classified and unchanged, rather, they strive to demonstrate that it is dynamic and shaped by multiple forces, both past and contemporary, and that many of these changes are human made.<sup>60</sup> These aims were

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<sup>57</sup> Art Not Oil, “Students Protest Against BP Sponsorship of Manchester Museum Exhibition,” *Art Not Oil*, last modified 21.04.11: <http://www.artnotoil.org.uk/blog/students-protest-against-bp-sponsorship-manchester-museum-exhibition-20411>

<sup>58</sup> McGhie, interview.

<sup>59</sup> “ExtInked” was a partnership with the artist collective Ultimate Holding Company.

<sup>60</sup> The University of Manchester, “Manchester 2020: The University of Manchester’s Strategic Plan,” *The University of Manchester*, accessed on 11.12.18: <http://documents.manchester.ac.uk/display.aspx?DocID=25548>

demonstrated in another of the museum's milestone exhibitions, "Climate Control" in 2016. The goal of this exhibition was to achieve large scale audience participation in events that focused on climate change, and was another opportunity for the museum to further diversify its practices, by embracing new mediums such as film screenings and live streaming. Part of the exhibition took place inside "Living Worlds," remnants of which can still be seen today. These include an installation of hundreds of peppered moths, flying above the gallery, and additional text panels that provide information on "10 Ways to Make a Difference," such as eating seasonally and conserving household energy (Fig. 7 & Fig. 8).<sup>61</sup> As an example of its ongoing climate related programming, "Climate Control" demonstrated how "Living Worlds" continues to support Manchester Museum's dedication to sustainability, and how the museum was able to adapt the permanent gallery in response to increasing rates of planetary change.

The principles of "Living Worlds" help to define the role of Manchester Museum as playing a part in climate change mitigation. The gallery is an example of how the museum has purposely developed and critically deployed its position and characteristics as a university museum, in order to become a valuable agent of social change. It continues to be used extensively by students and academic staff of the University of Manchester, as a source for research, site of collaboration, and tool for informal learning. This work enables the museum to act as a bridge between academic research and society, through programmes designed to inform a wider and more diverse audience about the most contemporary issues and debates surrounding climate change.<sup>62</sup> But further to this, by linking its visitors with other organisations and initiatives, the museum could become a tool for climate action.

The various professional recognitions of "Living Worlds" demonstrate that the museum could act as an example and aid for other museums that are aiming to engage their work in tackling climate change. However, as the interventions from "Climate Control" expose, the museum continues to rely on a strategy that targets individuals. Deepwater Horizon was an example of the catastrophic effects that fossil fuel companies are having on our environment, yet society continues to support this industry. Global CO<sub>2</sub> emissions from fossil fuel energy sources have continued to rise since 2011, despite the good behaviours

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<sup>61</sup> As a symbol of transformation, the peppered moth became the overarching motif of "Climate Control." Sarah Dawood, "Immersive Climate Control Exhibition Asks Visitors to reflect on Carbon Footprint," *Design Week*, last modified 11.05.16: <https://www.designweek.co.uk/issues/9-15-may-2016/new-immersive-exhibition-climate-control-asks-visitors-to-reflect-on-their-carbon-footprints/>

<sup>62</sup> Manchester Museum, "Strategic Plan 2015-18," *The University of Manchester, Manchester Museum*, accessed on 14.11.18: <http://documents.manchester.ac.uk/display.aspx?DocID=24713>



Fig. 7: Exhibition view of peppered moth sculpture installed about the main “Living Worlds” gallery. The sculpture was installed as part of the “Climate Control” exhibition that took place at Manchester Museum in 2016, and has remained in place in the permanent gallery. “Living Worlds” at Manchester Museum, Manchester, UK, December 2018.



Fig. 8: Exhibition view of one of the “10 Ways to Make a Difference” that were installed in the “Living Worlds” gallery as part of the “Climate Control” exhibition at Manchester Museum in 2016. These remain in place as part of the permanent display. “Living Worlds” at Manchester Museum, Manchester, UK, December 2018.

promoted by Manchester Museum.<sup>63</sup> It may therefore be time for the museum to update its approach, and to start tackling climate change at its source. This could include incorporating the more controversial socio-political aspects of climate change into its museology, or by taking a stance and acknowledging its involvement in the issue of fossil fuel sponsorship of museums. The “Living Worlds App” could be the perfect place for such topics to be linked, for example via the vial of crude oil displayed in the “weather” case, which was “donated by BP,” that could be used as a gateway to information about local policy or activism.<sup>64</sup> In other words, Manchester Museum could continue to diversify its practices to promote both individual and collective action, and to tell both of the stories of climate change and museums.

By further developing its content in this way, the messages in “Living Worlds” could continue to be of relevance, as part of the wider social and institutional shifts regarding climate change. That we need to move beyond information to inspiring and influencing collective action amongst the public, organisations and governments. Currently however, this case is an example of an institution that is trying to negotiate two conflicting narratives concerning climate change and museums, that museums can play an important role in tackling climate change, but that they are also valuable tools for fossil fuel companies and their public relations.

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<sup>63</sup> Kelly Levin, “2018: A Year of Climate Extremes,” *World Resources Institute*, last modified 27.12.18: <https://www.wri.org/blog/2018/12/2018-year-climate-extremes>

<sup>64</sup> Object label, “Living Worlds” at Manchester Museum.

## **Fossil Fuel Companies, Museums and the Construction of Public Knowledge about Climate Change**

The relationship between the fossil fuel industry and museums is doubly concerning, as it also allows these companies to construct narratives about climate change. The two stories of climate change and museums intersect in this chapter in the case of “Electricity: The Spark of Life” at the Science and Industry Museum, which is a fossil fuel funded project that attempts to address questions regarding past, current and future energy. My analysis continues to unravel the controversy surrounding museums and their relationships with the fossil fuel industry, by focusing on the implications of such partnerships for museums, and how they undermine their missions and abilities to produce meaningful responses to climate change. Today, there is a growing dissatisfaction amongst the public about the involvement of the fossil fuel industry in museums. In other words, as the world faced extraordinary climate extremes in 2018, so expectations were being set for museums as part of a growing movement for “fossil free culture.”<sup>65</sup> This chapter therefore examines the interactions between social activism and museums, and how institutions could engage with these movements as part of their role as agents of social change.

“Electricity: The Spark of Life” was the latest temporary exhibition to be mounted at Manchester’s Science and Industry Museum. Produced in collaboration with London’s Wellcome Collection, and Teylers Museum, Haarlem, in the Netherlands, the exhibition was shown across all three locations between 2017 and 2019.<sup>66</sup> Although the core theme of “Electricity” remained the same across the separate museums, the content, presentation and supporting partnerships varied significantly. At the Science and Industry Museum visitors found the story of electricity framed within the context of Manchester’s industrial history, and questions regarding the future of energy in a low carbon UK were interrogated through collection objects, stories and contemporary art commissions. The result is an example of the

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<sup>65</sup> The growing movement for “Fossil Free Culture” is an integral part of the wider global divestment movement with active campaigns exist in the UK, US, France, Norway, the Netherlands and Canada. Culture Unstained, “Complaint to the Science Museum Group,” *Culture Unstained*, accessed on 12.11.18:

<https://cultureunstained.files.wordpress.com/2018/07/formal-complaint-to-the-science-museum-group-final1.pdf>

<sup>66</sup> “Electricity: The Spark of Life” was first displayed in London at the Wellcome Collection from February to June 2017, before travelling to Teylers Museum, Haarlem, in the Netherlands, where it was displayed from July 2017 to January 2018, and finally returned to the UK for display in Manchester at the Science and Industry Museum from October 2018 to April 2019.

problematic interplay between corporate sponsorship and a museums ability to effectively address issues relating to climate change.

Shell was the major sponsor of “Electricity,” which opened amongst considerable controversy as the headline event of Manchester Science Festival in 2018. On 18<sup>th</sup> October, protestors demonstrated outside the launch of the Science and Industry Museum’s new exhibition in an attempt to encourage opposition to Shell’s sponsorship. Activists argued that the company’s continuing fossil fuel extraction is impossible to defend when the world is facing climate crisis, and invited guests to ask the museum “why Shell?” Indeed, the opening of “Electricity” came just days after the publication of the Intergovernmental Panel on Climate Change’s (IPCC’s) special report on climate change, which emphasised the urgency of phasing out fossil fuels, and followed the withdrawal of several Manchester Science Festival partners in response to the oil company’s involvement.<sup>67</sup>

“Electricity” is an example of ongoing tensions within the museum sector regarding institutions and their relationships with the fossil fuel industry. In the same week as the opening of the exhibition, the National Gallery in London confirmed the end of its longstanding Shell partnership.<sup>68</sup> This followed the news that a number of major Dutch museums had also ended their sponsorship deals with the company, in response to growing public pressure on museums to end their relationships with fossil fuel corporations.<sup>69</sup> But further to this, as part of the Science Museum Group, of which the London Science Museum is also a part, “Electricity” at the Science and Industry Museum is an example of an enduring controversy that has surrounded this group of museums since the exposure of Shell’s involvement in their “Atmosphere” exhibition in 2015.

On 15<sup>th</sup> July 2018, research, engagement and campaign organisation Culture Unstained submitted a formal complaint to the Science Museum Group. The complaint asserted that the values of the Science Museum Group and Shell are not aligned, and that the partnership undermines the integrity of its museums as scientific institutions. Supported by forty-six “highly respected scientists, science policy experts, naturalists and community representatives,” the complaint claimed that such sponsorships violate the group’s own, and

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<sup>67</sup> Behind the Logos, “Spoof Shell Reps Gatecrash Manchester Exhibition Launch,” *Behind the Logos*, accessed on 12.11.18: <https://www.behindthelogos.org/spoof-shell-reps-gatecrash-manchester-exhibition-launch/>

<sup>68</sup> Adam Vaughan, “Shell Ends National Gallery Sponsorship – To Delight of Campaigners,” *The Guardian*, last modified 19.10.18: <https://www.theguardian.com/business/2018/oct/19/shells-ends-national-gallery-sponsorship-to-delight-of-campaigners>

<sup>69</sup> In August 2018, the Van Gogh Museum, Amsterdam ended its eighteen-year sponsorship deal with Shell, following a high-profile campaign of creative protest by the art activist group Fossil Free Culture. This was followed by the Mauritius and Museon, both in The Hague, also ending their partnerships with the company.



museum sector governance policies. Documents that were made public as part of the complaint showed that the museum group were aware of Shell's ties to pollution, corruption and climate science disinformation, but proceeded with the partnership anyway. By partnering with organisations who are "incompatible with meaningful climate change mitigation," the Science Museum Group contradicts its own commitments to "addressing some of the most urgent scientific challenges of our time."<sup>70</sup>

For Chris Garrard, co-director of Culture Unstained, Shell's involvement with "Electricity" is particularly concerning. For one, the company stands to benefit not just from the exhibitions sponsorship, but from the wider reputation of Manchester Science Festival. Furthermore, by persisting with the arrangement, despite opposition from several festival partners, the museum undermines its relationships with important stakeholders. In other words, the museum's failure to act on the concerns raised suggests that it is willing to put the needs of corporate sponsors before its responsibilities to the museum sector or the public.<sup>71</sup>

In their complaint, Culture Unstained urged the Science Museum Group to end its relationship with Shell, as well as all other environmentally violating partnerships. In order to effectively limit the impacts of climate change we need to move away from fossil fuels completely, but for that to be possible it is essential to shift the public perception and treatment of these companies. Divesting from such sponsorships would subvert the social legitimacy that fossil fuel companies seek to gain from their relationships with museums, and would restore public confidence in the validity of these institutions.<sup>72</sup> Instead however, the Science Museum Group have not only disregarded Culture Unstained's request, but they have persisted with "Electricity," which was a new Shell partnership.

To date, there has been no public response to this formal complaint, however, in the case of "Electricity" a statement was posted on the Science and Industry Museum's blog, prior to the exhibition's opening. In the post director Sally MacDonald claims that investment from the museum's corporate partners make it possible for it to achieve its mission, and proceeds to thank Shell, as one of the funders who supported the exhibition.<sup>73</sup> This response is reminiscent of that made by Science Museum Group director Ian Blatchford in 2015, who also cited the necessity of corporate funding when Shell's involvement with "Atmosphere"

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<sup>70</sup> Culture Unstained, "Complaint to the Science Museum Group," *Culture Unstained*, accessed on 12.11.18: <https://cultureunstained.files.wordpress.com/2018/07/formal-complaint-to-the-science-museum-group-final1.pdf>

<sup>71</sup> Garrard, interview.

<sup>72</sup> Culture Unstained, "Complaint to the Science Museum Group," *Culture Unstained*, accessed on 12.11.18: <https://cultureunstained.files.wordpress.com/2018/07/formal-complaint-to-the-science-museum-group-final1.pdf>

<sup>73</sup> Sally MacDonald, "Funding our Electricity Exhibition," *Science and Industry Museum*, last modified 08.08.18: <https://blog.scienceandindustrymuseum.org.uk/electricity-exhibition-funding/>

was questioned.<sup>74</sup> For Garrard, the Science Museum Group's unchanging reaction to such criticism is not only insufficient, but completely ignores the moral and ethical quandaries that are at the heart of the issue of the museum's fossil fuel sponsorships.<sup>75</sup>

Funding continues to be a key problem for museums, as they find themselves caught between achieving their missions and the increasing pressure of government budget cuts. This situation leaves some museums needing to strike a difficult balance between the concerns of their investors and their commitments to the public.<sup>76</sup> This is a reoccurring issue for the Science and Industry Museum, in Manchester, as in 2010, the UK government announced its decision to withdraw funding from "non-national" museums by 2015. Thus, due to the financial difficulties that this caused, the museum accepted an unpopular merger with the Science Museum Group in 2012.<sup>77</sup> At the time, concerns were already being raised in the press with regards to the autonomy and reputation of regional institutions faced with absorption by larger museums.<sup>78</sup> By merging with the Science Museum Group, the Science and Industry Museum became associated with a brand that was already being criticised for its links with the fossil fuel industry. "Electricity" therefore joins a long list of the Science Museum Group's offences, which are evidence of a string of partnerships between the group and several fossil fuel companies.<sup>79</sup> As a result of its Shell sponsorship, the exhibition opened amidst an aggressive media campaign, which was designed to embroil the museum in this wider complaint.<sup>80</sup>

The persistent message in "Electricity" is that, thanks to science, the mass generation and distribution of electricity has changed our lives for the better. The exhibition proceeds to

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<sup>74</sup> Ian Blatchford, "Fundings and Our Climate Science Gallery," *Science Museum*, last modified 01.06.15: <https://blog.sciencemuseum.org.uk/fundings-and-our-climate-science-gallery/>

<sup>75</sup> Garrard, interview.

<sup>76</sup> Adrian Ellis, "Museums in the Changing World Order: A Question of Ethics," *The Art Newspaper*, last modified 22.02.19: [https://www.theartnewspaper.com/analysis/museums-in-the-changing-world-order-a-question-of-ethics?fbclid=IwAR0Y\\_A4D7q6zVGsM-WQgwUt\\_oSsqjUciTuSF70mcRKtlxru0eec6hgy85Y8](https://www.theartnewspaper.com/analysis/museums-in-the-changing-world-order-a-question-of-ethics?fbclid=IwAR0Y_A4D7q6zVGsM-WQgwUt_oSsqjUciTuSF70mcRKtlxru0eec6hgy85Y8)

<sup>77</sup> BBC, "Manchester's MOSI and London's Science Museum to Merge," *BBC*, last modified 02.12.11: <https://www.bbc.co.uk/news/uk-england-manchester-16010873>

<sup>78</sup> Paul Walker, "Local Museums Face Crisis After DCMS Announces End to Financial Support," *The Guardian*, last modified 17.11.10: <https://www.theguardian.com/culture/2010/nov/17/local-museums-funding-cuts-dcms>

<sup>79</sup> The Science Museum Group holds partnerships with Shell, BP and Statoil/Equinor.

<sup>80</sup> In July, almost seventy scientists, environmentalists, representatives of impacted communities and policy makers contacted Science and Industry Museum director, Sally MacDonald privately, in an attempt to resolve what they felt was a clear ethical conflict without creating damaging controversy for the museum. However, in light of the museum's decision to continue with the exhibition the group signed a letter publicly, ending with: "we will now make our case loudly and persistently." Laura Williams, "Carbon Coop Withdraws Involvement in Manchester Science Festival Exhibition in Protest of Shell Sponsorship," *Carbon-Coop*, last modified 09.08.18: <https://carbon.coop/2018/08/carbon-coop-withdraws-involvement-in-manchester-science-festival-exhibition-in-protest-at-shell-sponsorship/>

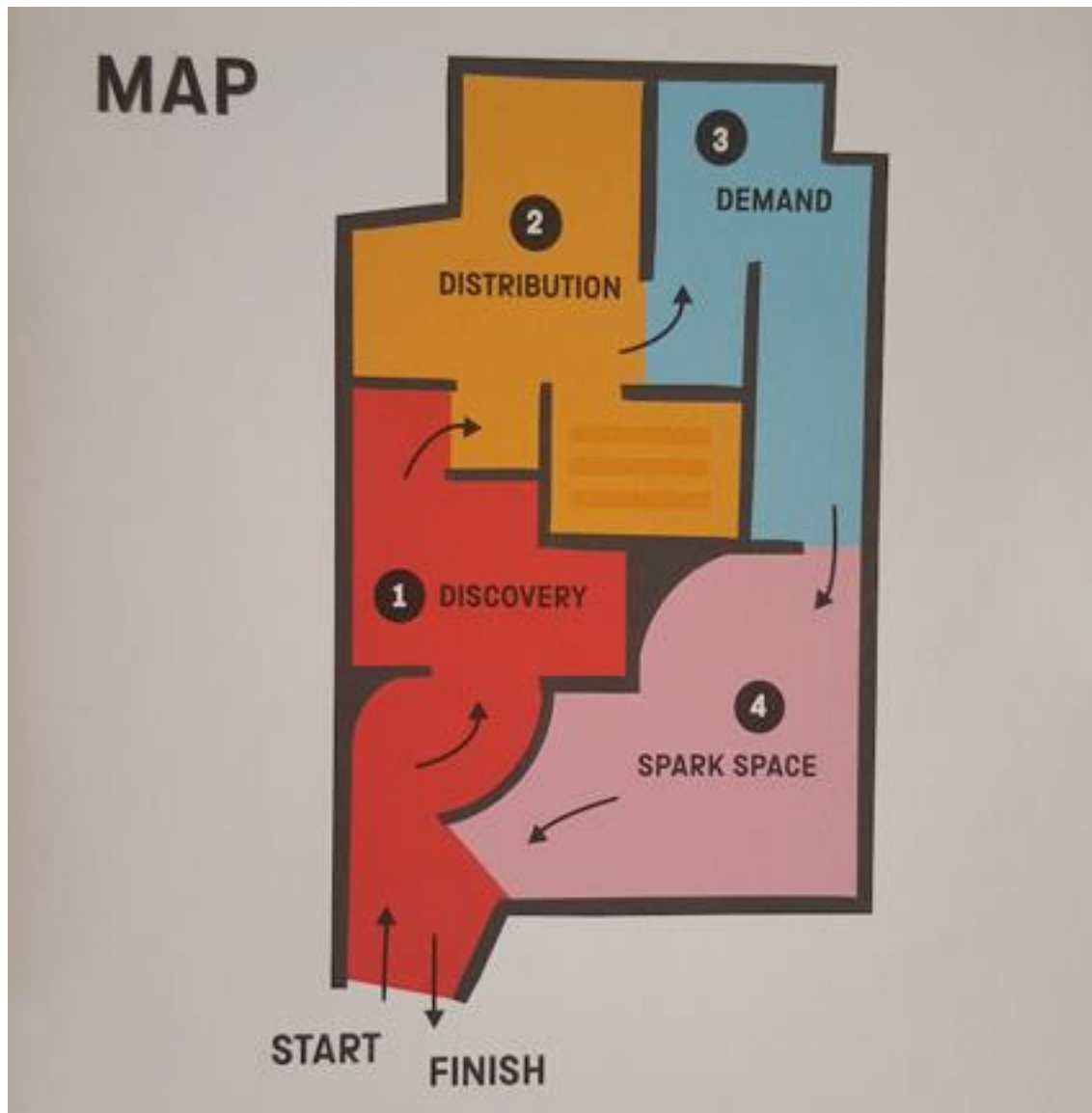


Fig. 9: Floor plan of “Electricity: The Spark of Life” at Science and Industry Museum, showing the relatively small amount of space that is designated for the section on “demand,” the only area of the exhibition to address issues relating to contemporary energy. “Electricity: The Spark of Life” at Science and Industry Museum, Manchester, UK, December 2018.

tell the history of electricity from a distinctly Mancunian point of view, by focusing on stories that weave a narrative of regional pride into the technological and scientific development of this ubiquitous source of energy. Structured into four sections, “discovery,” “distribution,” “demand” and the “spark space,” this history starts in nature and myth, before moving to early experimentation and the story of electricity’s development, and ends with domestic consumption in the past, present and the future.

Although arguably the biggest contemporary issue encompassed by the exhibition, “demand” is designated the smallest amount of room (Fig. 9). In this space visitors find

historic objects which demonstrate how electricity became part of our daily lives, but they also encounter the question with which the exhibition closes: “what do we think the future of electricity might look like?”<sup>81</sup> At this point there is potential, and much need, for discussion related to climate change, but this is not a challenge which “Electricity” rises to. Despite demand for energy being at the crux of our present climate issue, this is a glaring omission from not only this section, but from the entire exhibition.

Instead, “Electricity” has a relentlessly nostalgic undertone, which is produced by staging opportunities for personal identification and reflection with the objects on show. Older adults from the Manchester region are one of the main demographics targeted by this exhibition, a conclusion drawn from its stories of Manchester’s electric past, and the supporting objects whose labels ask visitors whether they “recognise this?” (Fig. 10).<sup>82</sup> This was confirmed through conversation with a gallery facilitator, who explained that, the general response has been that “people latch onto, and seem to enjoy best the things that are familiar to them.”<sup>83</sup> As such, “Electricity” endeavours to be relatable, not in order to communicate issues of climate change, but to generate a sense of pride based on the experiences of this particular audience. In my view, this approach is especially concerning, as this is a generation who are already often excluded from climate change communication, and thus would benefit from greater engagement on these issues.<sup>84</sup>

A video installation by data visualisation studio Tekja is the only intervention that comes close to engaging in the difficult questions surrounding future energy. Entitled “Flow,” Tekja’s piece artistically renders data about energy generation and distribution in the UK, specifically in Manchester and the North West of England (Fig. 11). The creator’s intentions were to make the normally invisible interactions and connections in the energy that we use visible, and to raise questions about the impact that our consumption *might* be having on the world.<sup>85</sup> Rather than questioning any part of the energy process that would reflect negatively on fossil fuel companies, “Flow” focuses on *future* solutions, which downplays the real challenges of climate change, and posits them as problems to be addressed in times yet to come. In addition to this, the video concludes that it is the behaviours of visitors, as

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<sup>81</sup> Text panel for “demand” section of “Electricity: The Spark of Life” at Science and Industry Museum, Manchester.

<sup>82</sup> Object label in “Electricity: The Spark of Life” at Science and Industry Museum, Manchester.

<sup>83</sup> Gallery facilitator, “Electricity: The Spark of Life,” Science and Industry Museum, conversation with the author, Manchester, 20<sup>th</sup> December 2018.

<sup>84</sup> Odile Robotti, “Why Do Climate Change Discussions Ignore Boomers?” *Next Avenue*, last modified 19.10.18: <https://www.nextavenue.org/climate-change-boomers/>

<sup>85</sup> Science and Industry Museum, “Behind the Scenes: Tekja’s Flow,” *Science and Industry Museum*, video, 11<sup>th</sup> October 2018. <https://www.youtube.com/watch?v=snarOj0srrI>



Fig. 10: Exhibition view showing modern 3-prong plug and interpretation that asks visitors whether that “recognise this?” “Electricity: The Spark of Life” at Science and Industry Museum, Manchester, UK, December 2018.

consumers, that would need to change, rather than our current, environmentally damaging modes of production (Fig. 12). As a result, although the installation implies a link between electricity and climate change, this aspect remains strikingly underdeveloped.

By framing electricity through stories of scientific and technological innovation “Electricity” expresses the group’s broader strategic intentions. The Science Museum

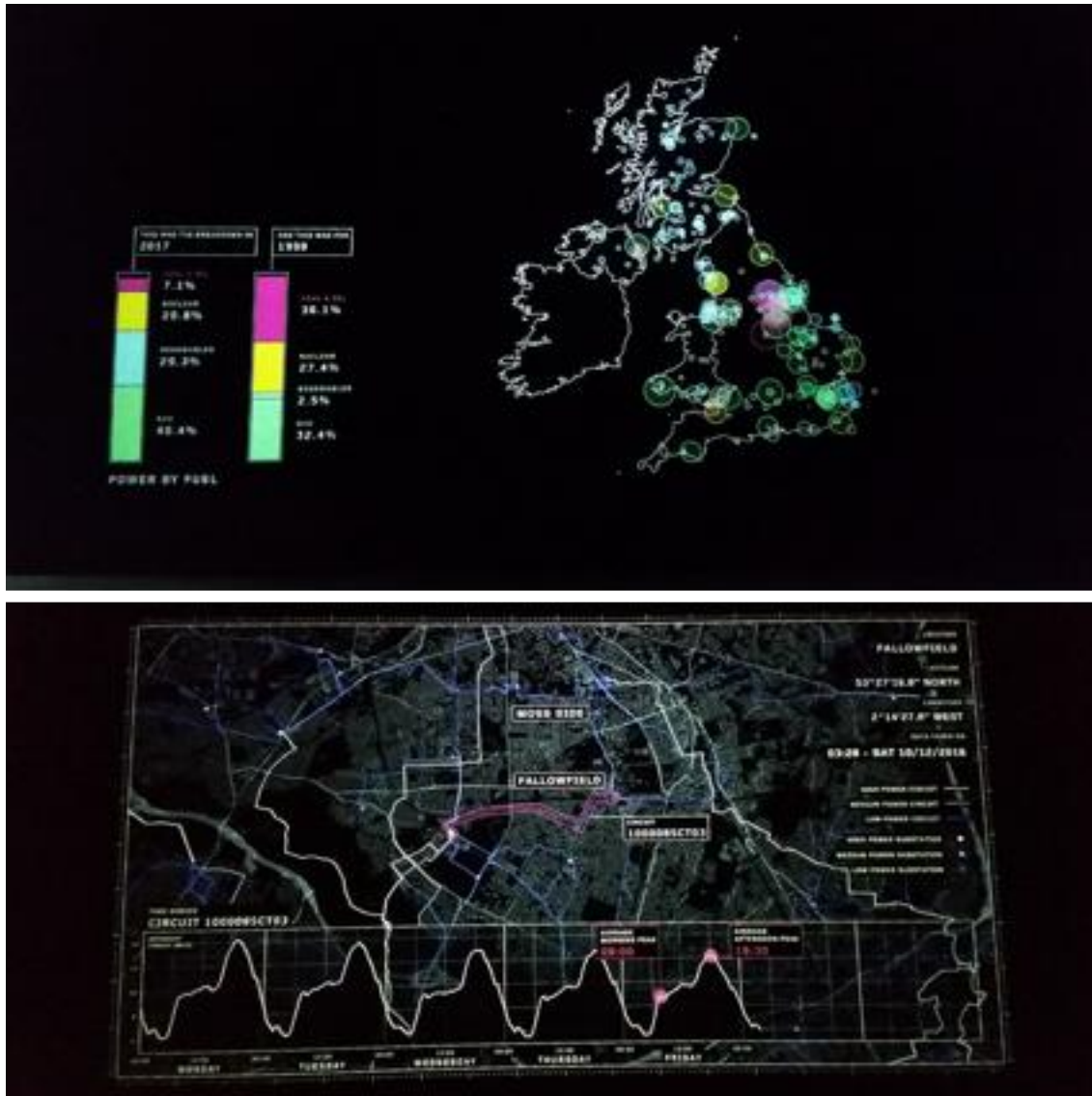


Fig. 11: Installation view of “Flow” by Tekja, showing data visualisation of fuel sources in 2017 verses 1998 (top), and electricity power circuits and daily patterns of energy use in parts of Manchester (bottom). “Electricity: The Spark of Life” at Science and Industry Museum, Manchester, UK. December 2018.

Group’s mission is simply to “inspire futures,” which it aims to achieve through a number of strategic priorities. The first of these is to “grow science capital in individuals and society,” which emerges from the group’s commitment to science, technology, engineering and mathematics (STEM) learning and engagement. The group aims to be a national and international leader in STEM education, by recognising themselves as playing a distinctive role in addressing the UK’s STEM agenda.<sup>86</sup> Thus, by educating and inspiring visitors about

<sup>86</sup> Science Museum Group, “Inspiring Futures: Strategic Priorities 2017-2030,” *Science Museum Group*, accessed on 22.11.18: <https://group.sciencemuseum.org.uk/wp-content/uploads/2017/06/Inspiring-Futures-Strategic-Priorities-2017-2030.pdf>

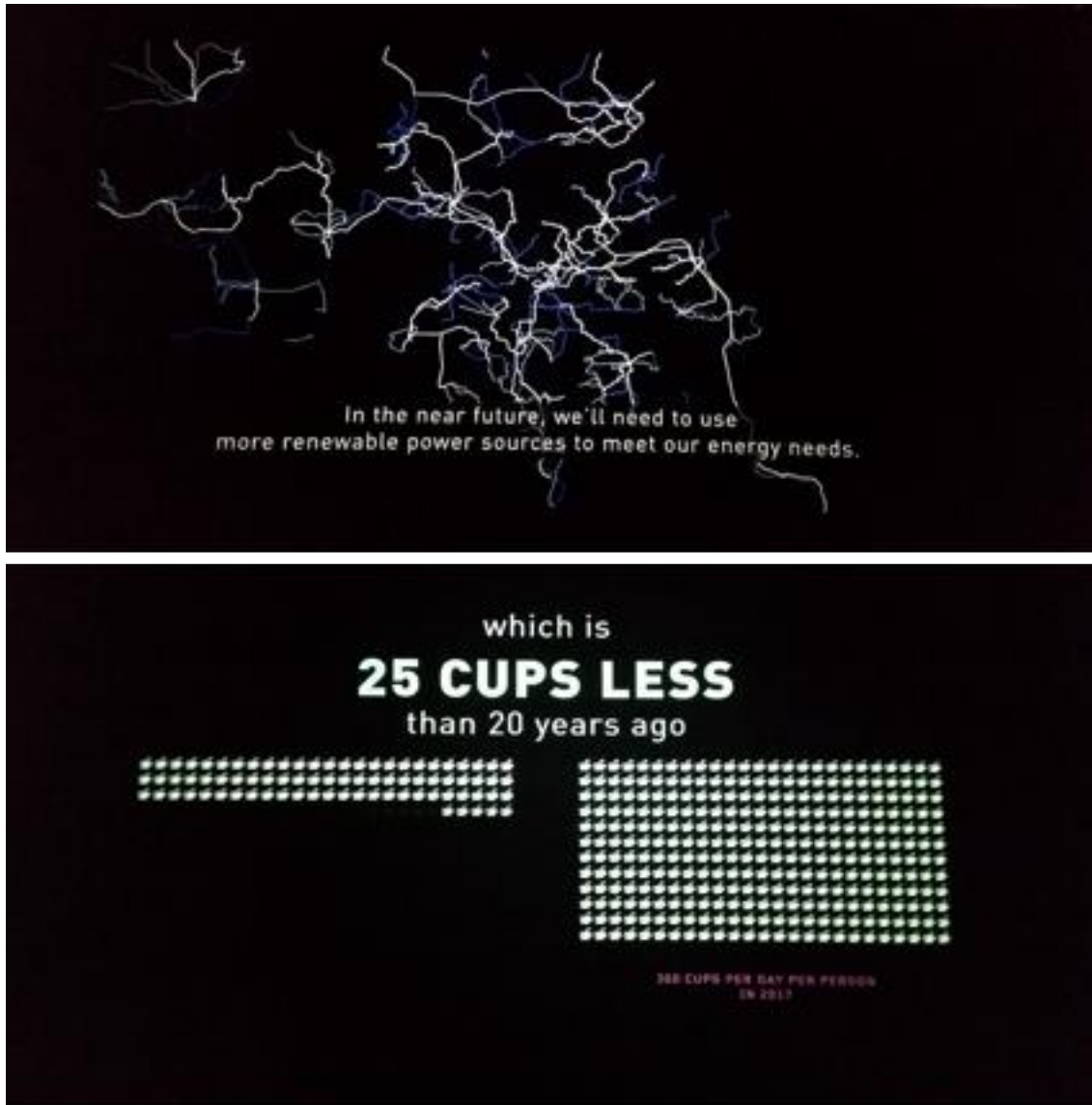


Fig. 12: Installation view of “Flow” by Tekja, showing narrative that suggests that we will need to use more renewable power sources in the future (top), and visualisation that communicates energy usage using common the consumer activity of making tea (bottom). “Electricity: The Spark of Life” at Science and Industry Museum, Manchester, UK. December 2018.

the scientific, technological and engineering aspects of electricity, the Science and Industry Museum’s exhibition is a part of the group’s wider STEM strategies.

Shell too, identifies STEM subjects as being at the very heart of its business. It is therefore unsurprising that the company should support STEM-related initiatives, which will inspire and equip young people with the skills they need to become the next generation of Shell engineers and scientists.<sup>87</sup> Further to this however, in light of current controversy

<sup>87</sup> Shell, “Education,” *Shell*, accessed on 11.01.19: <https://www.shell.com/sustainability/communities/education.html>

regarding their arts and culture sponsorships, STEM-supporting organisations have provided a fitting replacement for these investments. In other words, in response to public pressure, Shell has refocused its branding from the arts to STEM, a move which also allows the company to have a greater impact in shaping understanding of climate change.<sup>88</sup> In this way “Electricity” presents an opportunity for Shell to collaborate with the Science Museum Group in order to advance its own business agenda, which currently means increasing its role in STEM education.

This has adversely affected the exhibition’s ability to address issues relating to climate change, specifically, Cameron’s view that museums should present its challenges from a range of different perspectives, thus allowing visitors to draw their own conclusions.<sup>89</sup> This is a position that is reflected in the work of The Natural History Museum, an organisation that describes itself as a “travelling pop-up museum,” which produces creative activism in the form of temporary exhibitions, museums tours and educational workshops, in order to expose the perspectives that are inherent in museums.<sup>90</sup> The Natural History Museum’s mission is to reveal the socio-political forces that shape nature, and in doing so assert that museums have become a part of the fossil fuel ecosystem, as organisations that mediate our understanding of fossil fuels, energy and the environment.<sup>91</sup> The same can be said to be true of “Electricity,” an exhibition that frames energy from an industrial perspective, which avoids any criticism that could be related to its sponsor’s activity. Shell plans to extract fossil fuels for decades to come, and is known to have backed and funded climate science disinformation.<sup>92</sup> There is a perspective which is grounded in economics, rather than any sense of moral, ethical or environmental stewardship, and as such should have no place in the shaping of museum climate change narratives.

But further to this, the exhibition actively engineers positive cognitive associations with regards to such companies. The bottom line in “Electricity” is that energy is central to

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<sup>88</sup> Shirine Saad, “After Years of Protests, Shell Ends Corporate Partnership with National Gallery,” *Hyperallergic*, last modified 22.10.18: <https://hyperallergic.com/466626/after-years-of-protests-shell-ends-corporate-partnership-with-national-gallery>

<sup>89</sup> Fiona R. Cameron, Bob Hodge, and Juan Francisco Salazar, “Conclusion: Climate Change Engagement: A Manifesto for Museums and Science Centres,” in *Climate Change and Museum Futures*, eds. Fiona R. Cameron and Brett Neilson (New York and London: Routledge, 2015): 252.

<sup>90</sup> The Natural History Museum, “About the Natural History Museum,” *The Natural History Museum*, accessed on 14.09.18: <http://thenaturalhistorymuseum.org/>

<sup>91</sup> The Natural History Museum, “Mining the Houston Museum of Natural Sciences: Video and Pics,” *The Natural History Museum*, last modified 09.04.16: <http://thenaturalhistorymuseum.org/houston-exhibition-video-and-pics/>

<sup>92</sup> Behind the Logos, “How Oil Companies Joined Forces to Spread Doubt and Denial,” *Behind the Logos*, accessed on 11.01.19: <https://www.behindthelogos.org/how-oil-companies-joined-forces-to-spread-doubt-and-denial/>



our existence: “We use it without thinking about what it is or where it comes from. We only notice it when it isn’t there.”<sup>93</sup> This is the first line of the exhibition’s introductory text, which carries the strategically placed subtext that energy-producing companies are integral to our lives and to society, thus cementing their role and the perceived necessity of their current activity at the forefront of visitors’ experiences. Not only is this a singular message, which leaves little room for a nuanced discussion of climate change, but by adopting a perspective that is equivalent to its corporate partner the exhibition becomes a tool in the fossil fuel industry’s latest greenwashing strategy, which has been repositioned to focus on STEM initiatives.

The controversy surrounding Shell’s sponsorship of “Electricity” dominated responses to the exhibition in the media, to the extent that the museum briefed its gallery facilitators on the potential for ongoing protest.<sup>94</sup> Such public criticism demonstrates that the Science and Industry Museum’s corporate partnership with Shell is adversely affecting not only the museum’s ability to communicate climate change, but that it is having a damaging effect on the museum’s reputation as a trusted source of scientific information.

This can be linked to wider concerns regarding museums and their responsibility to society, and how this is being challenged by their present connections to the fossil fuel industry. Museums are trusted organisations, but by partnering with corporations whose businesses do not align with the best interests of society they risk undermining such a position.<sup>95</sup> This is closely tied to the notion of the social license to operate, which for entrepreneur Paul Klein involves building strategic partnerships with institutions who can help businesses enhance their image with specific audiences. In short, by seeking out connections to museums, companies are granted access to a valuable vehicle for publicity. As demonstrated, this potentially puts the values of museums at odds with the brands with which they are associated, and raises questions regarding the museums priorities. By aligning with a company whose entire business model is, by necessity, based on worsening climate change the Science and Industry Museum ignores both its social and environmental responsibilities.

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<sup>93</sup> Introductory text panel in “Electricity: The Spark of Life” at Science and Industry Museum, Manchester.

<sup>94</sup> At the time of visiting there had been no protest action in the museum to the facilitator’s knowledge, although they had been briefed that this was a possibility. Gallery facilitator, “Electricity: The Spark of Life,” Science and Industry Museum, conversation with the author, Manchester, 20<sup>th</sup> December 2018.

<sup>95</sup> Colleen Dilenschneider, “People Trust Museums More Than Newspapers. Here Is Why That Matters Right Now (DATA),” *Colleen Dilenschneider*, last modified 26.04.17: <https://www.colleendilen.com/2017/04/26/people-trust-museums-more-than-newspapers-here-is-why-that-matters-right-now-data/>

Furthermore, the Science and Industry Museum positions itself as playing an important role in igniting curiosity amongst young people to become future engineers and scientists.<sup>96</sup> It is this next generation who will be tasked with tackling some of the biggest challenges we face today, which includes addressing our reliance on fossil fuels. In addition to its STEM approach, “Electricity” was intended to target a younger audience as part of Manchester Science Festival’s wider programme, which was aimed largely at children.<sup>97</sup> For campaigners however, the museum’s decision to take sponsorship from Shell was a betrayal of its responsibility towards these young audiences, as they viewed “Electricity” as providing a platform for the company to influence young people’s perceptions of energy, and the fossil fuel industry.<sup>98</sup> In other words, by collaborating with Shell, not only does the museum undermine its own educational goals, but it is compliant in “breaking the future” for the very people that it claims to support.<sup>99</sup>

As outlined in the introduction of this investigation, there is a growing belief that museums need to be more self-reflexive organisations, and that they should be more transparent about the perspectives which frame the ideas and practices that they promote. As demonstrated in the previous chapter in my examination of “Living Worlds” at Manchester Museum, museums can operate as platforms for diverse perspectives to meet. As suggested by Hodge, this could include inviting conflicting opinions into dialogues within their space. In this case the perspectives of both industry and activist groups such as Culture Unstained, could be presented in order to provide audiences with multiple sides of the debate about the role of fossil fuel companies in our future energy. This would not only put trust in audiences to make their own decisions, but would be a way for museums to rethink their operations, to more constructively use their connections with corporations and better connect with mainstream activist movements.

On the contrary, in “Electricity” the perspective presented by the Science and Industry Museum aligns closely, but obliquely, with that of Shell, its supporting company. Although insisting that “editorial control sits firmly with the museum,” I argue that this perspective has unduly influenced the exhibition’s message, and that the likelihood of self-censorship has

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<sup>96</sup> Sally MacDonald, “Funding our Electricity Exhibition,” *Science and Industry Museum*, last modified 08.08.18: <https://blog.scienceandindustrymuseum.org.uk/electricity-exhibition-funding/>

<sup>97</sup> The tag-line for Manchester Science Festival is “part laboratory, part playground.” “Manchester Science Festival,” *Manchester Science Festival*, accessed on 24.01.19: <https://www.manchestersciencefestival.com/>

<sup>98</sup> Helen Pidd, “Manchester Science Festival Partners Withdraw Over Shell Sponsorship,” *The Guardian*, last modified 02.09.18: <https://www.theguardian.com/uk-news/2018/sep/02/manchester-museum-of-science-and-industry-festival-partners-withdraw-shell-oil-sponsorship>

<sup>99</sup> Culture Unstained, “Shell Ends National Gallery Partnership in Bid to Boost Influence in Science Education,” *Culture Unstained*, last modified 20.10.18: <https://cultureunstained.org/2018/10/20/shellendsngpartnership/>

been increased.<sup>100</sup> Despite public and environmental pressure, “Electricity” echoes the values of a group that is currently unwilling to change, and who remain complicit in the behaviours of oil and gas companies. Today, more than ever, and especially where climate change is concerned, museums need to be taking their role as social agents seriously, by either divesting from fossil fuel sponsorship completely, or by addressing more openly the presence of industry in their activity. Unlike many smaller museums, the Science Museum Group has the standing and international reputation to demonstrate leadership on this issue, and to show real commitment to its future orientated mission.<sup>101</sup>

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<sup>100</sup> Sally MacDonald, “Funding our Electricity Exhibition,” *Science and Industry Museum*, last modified 08.08.18: <https://blog.scienceandindustrymuseum.org.uk/electricity-exhibition-funding/>

<sup>101</sup> Garrard, interview.

## **The Role of Museums as Part of a Network of Climate Change Mitigation**

The previous two chapters have demonstrated that museums are part of a network of interlocking stakeholders and social influences, and that mediating between them is already a standard part of their operations. This illustrates the networked potential of museums, that could be developed as a valuable part of their role in tackling climate change. This chapter examines this characteristic through the example of the global Museums and Climate Change Network (MCCN), a community of professionals working throughout museums and the culture, science, education and policy sectors, who work to engage the public on climate change issues. My analysis will examine the different functions of the network, its members, and the types of projects they produce, including the ways in which they collaborate across disciplines and around the world. This will focus on the relationship of an individual to an institution and how both relate to the network, how the network can facilitate the interaction of different and sometimes competing stakeholders, and how the network can be used as part of the public and political influence of museums. Ultimately, I suggest that networks can be a fundamental aspect of diversified museum practices, which could be incorporated into wider climate mitigating strategies.

The climate crisis is an interlocking environmental, social and political problem. In order to cope with both new and existing challenges, organisations must identify allies and resources in diverse fields, both locally, regionally and internationally. Although climate change is a global force with global impacts that affect us all, it is a phenomenon that means different things to different people in different communities and locations. Some communities are suffering from the effects of climate change more than others in other countries around the world. Hence, networks could be spread across the planet to connect these diverse experiences and understandings of global change, and to access a range of knowledges and perspectives that can be used as resources for mitigation. In other words, they could be used to bring the challenges of those who are bearing the brunt of climate change home to those who are not, especially in nations that continue to emit high amounts of CO<sub>2</sub>. Networks allow for these relations to be enacted across disciplines and physical

distances, and should therefore be recognised and incorporated into climate change responses.<sup>102</sup>

Museums are already networked organisations, which have the ability to collaborate across different sectors and geographies. According to Wikipedia there are 55,000 museums in 202 countries, this represents a robust international infrastructure and potentially huge network of organisations that transcend national borders and professional specialisms.<sup>103</sup> This is a fact that is acknowledged by the International Council of Museums (ICOM), as the header of its website states that “museums have *no borders*, they have a network.” (Fig.13)<sup>104</sup> The potential in this network is already recognised in frameworks for climate change museology, as demonstrated by the 2011 “Hot Science” study, which found that the public see museums as places that can connect individuals, communities and organisations.<sup>105</sup> As museums each have their own unique histories, traditions, resources and connections, the study proposed that organisations should draw on this heterogeneity to respond to climate challenges.<sup>106</sup> In doing so, museum staff can work together by pooling their collective intelligence, in order to produce creative solutions, and promote individual and collective action.

The relationships that museums have with a range of different agencies have already been established in the previous chapters, specifically the role of Manchester Museum as a university museum, and the interactions between the Science and Industry Museum and activist organisations. Museums could use these connections as part of their role as social agents, and include their different viewpoints as resources for broadening visitors’ understandings of climate change. This might include incorporating voices that are currently excluded from climate narratives, or by inviting disagreement more openly into their space. This would acknowledge that climate change is a problem that is shaped by many different actors, and demonstrate the interconnected nature of the issues that we face, but would also

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<sup>102</sup> Bob Hodge, “Climate Change and the Museum Sector: 10 reflections from the ‘Hot Science, Global Citizens’ symposium,” Western Sydney University, accessed on: 17.09.18: [https://www.westernsydney.edu.au/ics/news\\_and\\_media/blog/180511](https://www.westernsydney.edu.au/ics/news_and_media/blog/180511)

<sup>103</sup> Morien Rees and Walter Leal Filho, “Disseminating Climate Change: The Role of Museums in Activating the Global Public,” in *Handbook of Climate Change Communication: Vol 3*, eds. Walter Leal Filho et al. (Basel: Springer Nature Switzerland AG, 2019): 326.

<sup>104</sup> “International Council of Museums,” *International Council of Museums*, accessed on 01.02.19: <https://icom.museum/en/>

<sup>105</sup> Fiona Cameron, “Climate Change, Agencies and the Museum and Science Centre Sector,” in *Museum Management and Curatorship*, 27:4. (2012): 329.

<sup>106</sup> This is the 2<sup>nd</sup> proposition outlined by “Hot Science” in Fiona R. Cameron, Bob Hodge, and Juan Francisco Salazar, “Conclusion: Climate Change Engagement: A Manifesto for Museums and Science Centres,” in *Climate Change and Museum Futures*, eds. Fiona R. Cameron and Brett Neilson (New York and London: Routledge, 2015): 252.

March 8, 2019

## Gender mainstreaming: ICOM's mission in the past three decades

More



Fig. 13: Homepage of the International Council of Museums' (ICOM's) website, showing banner quote that "museums have no borders, they have a network." International Council of Museums (ICOM), March 2019.

provide audiences with new perspectives on a familiar issue, and avenues through which to introduce its more controversial aspects.<sup>107</sup>

The possibility for museums to work together and with other organisations to mitigate climate change is one of the reasons that the MCCN was founded, by its convener Jennifer Newell. Newell developed the belief that museums could be powerful platforms for amplifying the voices of those on the frontline of climate change, as a result of her work within museums and with Pacific communities. By working with Pacific collections in Australia, the UK and the US, and with an ever-growing concern for the challenges being faced by Pacific friends and colleagues, she saw a need for institutions to shift from focusing on histories to the more pressing environmental issues happening in the present.<sup>108</sup> In October 2013, she hosted the first gathering of individual museum professionals who shared this interest at the American Museum of Natural History in New York, in order to think more deeply about the role of museums in fostering engagement with climate change.<sup>109</sup> One of the

<sup>107</sup> Manon S. Parry, "Exhibiting Human Rights: New Narratives of Global Health," in *Inspiring Action: Museums and Social Change*, eds. Carol Brown, Elizabeth Wood and Gabriela Salgado (Edinburgh: Museums Etc, 2016): 150.

<sup>108</sup> Jennifer Newell, interview by the author, email correspondence, 24<sup>th</sup> February 2019.

<sup>109</sup> "Collecting the Future: Museums, Communities and Climate Change" was a workshop held at the American Museum of Natural History in New York, US from 2<sup>nd</sup>-4<sup>th</sup> October 2013, convened by Jennifer Newell, who

key concepts of this meeting was the notion of the “relational museum,” or the idea that museums can build communities as places of cultural exchange.<sup>110</sup> As a continuation of this ethos, the online network was created for those who attended to remain in conversation, and to afford this particular community with the capacity to grow remotely from their various locations.<sup>111</sup>

The MCCN’s mission is to support the creation of effective outreach around the challenges of global environmental change. It aims to do this by sharing the insights, ideas and inspirations of the increasing number of professionals who are concerned with extending and improving communication of climate change.<sup>112</sup> Newell’s background of working in museums in Europe, Australia and the US, coupled with her relationships with communities in the Pacific, demonstrates the potential for different perspectives to nurture a greater sense of personal commitment to addressing climate issues. Thus, the MCCN is an opportunity to replicate this on an institutional level, and to bring together the knowledge and expertise of a diverse and passionate group of individuals.

At the time of writing, the MCCN had fifty-five members from fifty-one organisations, spread across fifteen countries and a number of different sectors.<sup>113</sup> Forty-eight of the fifty-one members institutions were located across three main geographical centres: The Americas and Canada, Australia and New Zealand, Europe and the UK.<sup>114</sup> Of the rest, one was located in Asia, one in the Middle East and one in the Pacific. Individual members come from varied organisations, which include museums of natural and/or cultural history, university museums, civic museums, academic institutions, sustainability consultancies, art organisations, climate change museums, exhibition design companies, history museums, multidisciplinary projects, research centres, science centres or museums, local councils, nature and wildlife parks, science communication organisations, specialist museums, museum associations and coalitions. The geographical bias was expected, as it reflects the

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was working as Curator of Pacific Ethnography at the American Museum of Natural History at the time. Newell, interview.

<sup>110</sup> Museums and Climate Change Network, “Video of Workshop: Museums Collaborating Around Climate Change. Australian Museum, Sydney, 20 July 2017,” *Museums and Climate Change Network*, video, 13<sup>th</sup> February 2018. <https://mccnetwork.org/news/2018/3/18/video-of-workshop-museums-collaborating-around-climate-change-australian-museum-sydney-20-july-2017>

<sup>111</sup> Newell, interview.

<sup>112</sup> “Museums and Climate Change Network,” *Museums and Climate Change Network*, accessed on 08.10.18: <https://mccnetwork.org/>

<sup>113</sup> Figures do not include students or members who are not affiliated with an organisation. Four students and one museum professional have been excluded from analysis, including the author.

<sup>114</sup> It should be noted for the number of members from the Americas that there are no members from either Central or South America. With the exception of one member who is from Mexico all other members are from either Canada or the US.

centres that are most prolific in the production of museums and climate change literature. Additionally, the range of organisations is encouraging, as it demonstrates an interest in museums, climate change engagement and networked collaboration from diverse organisations both within and outside of the museum sector.

Education is a clear priority for members' institutions, as it was directly cited in the missions of forty-two organisations.<sup>115</sup> This finding suggests that providing contexts that promote critical thinking is a common strategy for museums to engage the public with climate change. However, education is a core function of many museums, as one of the purposes of a museum outlined by ICOM's current museum definition.<sup>116</sup> Climate change requires a different approach to education, one which I link with an evolving notion of activism, whereby when a subject becomes politicised there is no way for engagement with it not to be. As an example of an issue that is becoming increasingly political, I view museums that are incorporating climate change into their educational activities as participating in a form of activism.

The network appears not to take a stance on museums and fossil fuel funding, and "conscientious objection" to fossil fuelled culture is not a defining characteristic of affiliated organisations. Although the majority of members' institutions did not accept fossil fuel funding, twenty-eight in total, five members directly accepted money from oil and gas companies, and two from fossil fuel energy distribution companies, for sixteen organisations this information was not publicly available. This demonstrates the persistence of this issue, and also the problem of how to reconcile the beliefs of individual members with the values of their institutions.

The same is true for members organisations visible commitments to climate change, as only thirty-two expressed any clear engagement with related issues. The conclusions I draw from this are that members are not representatives of their organisations, and that there are potential barriers to making climate change a focus within them. This is illustrated by the disclaimer on The Australian Museum's website, that Newell runs the MCCN as an independent project, and I have already considered in chapter three how the corporate

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<sup>115</sup> Other highly occurring work described included: research, conservation, support, generating awareness, advocacy, publishing and producing art commissions.

<sup>116</sup> The International Council of Museum (ICOM) defines a museum as: "A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment." International Council of Museums, "Museum Definition," *International Council of Museums*, accessed on 01.02.19: <https://icom.museum/en/activities/standards-guidelines/museum-definition/>



funding of the London Science Museum, to which one MCCN member is linked, is an obstacle to their climate change communication.<sup>117</sup> This suggests that climate change engagement in museums is a fragile area of work, which is largely led by individuals, and receives only tentative support from institutions. This underlies the importance of Newell's work to create a network of support, which would give peers the confidence to try and make change within their organisations.<sup>118</sup>

When MCCN members were surveyed in February 2019, such support was one of the main reasons they cited for joining.<sup>119</sup> Specifically, responses included making connections, sharing, and learning from one another, both in terms of knowledge and the encouragement needed to remain engaged in a topic that can be overwhelming. In other words, in addition to the practical information and potential for worldwide co-operations that the network presented, members hoped to become part of a wider, inspirational community.<sup>120</sup>

“Rethinking Home: Climate Change in New York and Samoa” is an example of the type of work being produced by a MCCN member. Jointly produced in 2013 by Newell and Lumepa Apelu, Principal Officer of the Museum of Samoa, it is an instance of effective climate change communication as a result of an international museum collaboration. The project was a partnership between the American Museum of Natural History and the Museum of Samoa, that was created following Hurricane Sandy and Cyclone Evan, which occurred within months of each other in 2012. “Rethinking Home” brought together two groups of people from affected areas in New York and Samoa, to share and learn through storm experiences from two different cultural and ecological vantage points. Ultimately, the project aimed to examine how different communities approach climate change, and how cultural resources can be used to strengthen psychological resilience and support community wellbeing in the face of such adversity.<sup>121</sup>

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<sup>117</sup> In Newell's profile on The Australian Museum's climate change webpage it states that she “convenes the (independent) Museums and Climate Change Network.” The Australian Museum, “Climate Change,” *The Australian Museum*, last modified 19.02.19: <https://australianmuseum.net.au/learn/climate-change/>

<sup>118</sup> Newell, interview.

<sup>119</sup> Survey for the Members of the Museums and Climate Change Network, survey by the author, email correspondence, February 2019. The survey was sent to forty-nine members via the email addresses listed on the MCCN website. Seven responses were received over a two-week period from the US, Canada, Australia, Denmark, UK and Sweden.

<sup>120</sup> Survey for the Members of the Museums and Climate Change Network, survey responses, February 2019.

<sup>121</sup> Jennifer Newell, “Weathering Climate Change in Samoa: Cultural Resources for Resilience,” in *Pacific Climate Cultures: Living Climate Change in Oceania*, eds. Tony Crook and Peter Rudiak-Gould (Warsaw and Berlin: De Gruyter, 2018): 90.

The collaboration was structured around the theme of “home,” and the increasing threat that severe weather is posing to homes around the globe.<sup>122</sup> Groups explored this idea in discussions at each museum, through video conferencing, lectures and skills-based training, which included learning basic modern and traditional building techniques and recording oral histories. The materiality and changing significance of home was considered through conversations that examined how our houses define us, how they either succeed or fail to shelter us, and how they might adapt in the future, meanwhile practical sessions, which included representatives from both communities, were centred around the Fale samoa, and the volunteer work being carried out to rebuild homes after Hurricane Sandy. The Fale samoa is a traditional home found in Samoa that is made of wood, woven string and leaves, which is vulnerable to increasingly severe tropical storms. Islanders were able to identify with a similar feeling of loss that was being experienced by coastal New Yorkers, both of whose homes were damaged by comparable events. Thus, home was a subject that was immediately accessible to participants, and provided a topic of shared concern between two different communities. Home was an object and a concept that engage people beyond the simple presentation of science, which allowed for the personal, social and cultural impacts of climate change to be explored.

“Rethinking Home” is an example of a global collaboration among communities that are experiencing and being changed by some of the worst effects of climate change, which raised the profile of challenges that are happening now across the world.<sup>123</sup> Samoa is a low-lying island nation that is weathering the consequences of very visible climate change, meanwhile New York is one of the world’s largest urban centres. Yet, as the damage from Hurricane Sandy underlined, “western” coastlines are as vulnerable as other shores are to the impacts of environmental disasters. By connecting similar issues in two different countries, and bringing neglected perspectives to audiences who are familiar with only a narrow range of climate narratives, “Rethinking Home” demonstrated that climate change is a collective problem that we all face, but also the potential for such projects to cultivate broad appeal, and to engage wider audiences to get involved in climate action initiatives. This type of work

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<sup>122</sup> Lumepa Apelu, “Cameo: Museums Connecting,” in *Curating the Future: Museums, Communities and Climate Change*, eds. Jennifer Newell, Libby Robin and Kirsten Wehner (Oxon and New York: Routledge, 2017): 32.

<sup>123</sup> Jennifer Newell, “Talking Around Objects: Stories for Living with Climate Change,” in *Curating the Future: Museums, Communities and Climate Change*, eds. Jennifer Newell, Libby Robin and Kirsten Wehner (Oxon and New York: Routledge, 2017): 43.

moves away from the traditional role of museums as places which preserve the past, to a more proactive role in shaping our communal future.<sup>124</sup>

Another example of a project produced by a MCCN member, which utilised a museums existing network to activate different communities in response to climate change, was the “International Symposium on Museums and Climate Change,” held at Manchester Museum in 2018.<sup>125</sup> Developed by Henry McGhie, and Walter Leal Filho, the impetus behind the symposium came from Manchester Museum’s ongoing work in relation to the environment and sustainability.<sup>126</sup> By gathering professionals from museums and related arenas, the meeting aimed to provide a platform for exploring the value and need for collaborating more across the museum sector and other disciplines.<sup>127</sup> Structured around a number of workshops and presentations, thoughts from sessions were organised using the Talanoa Dialogue, a method which encourages entities to plan their work in alignment with the United Nation’s Sustainable Development Goals (SDGs) and the Paris Agreement.<sup>128</sup> The event provided a space for participants to network, and promoted collaboration in pursuit of these international aims.

The symposium illustrates what McGhie terms the “civic-social function” of museums, in which museums strive to develop their position between various stakeholders, in order to connect citizens and politics.<sup>129</sup> The event was attended by representatives from the Intergovernmental Panel on Climate Change (IPCC), and the United Nations Framework Convention on Climate Change (UNFCCC), who recognised the value of the role museums can play to mitigate climate change.<sup>130</sup> A submission based on symposium discussions was made to the UN’s Talanoa Dialogue in October 2018, a platform for non-party stakeholders to share their work and ambitions for turning policy into action.<sup>131</sup> The submission made a

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<sup>124</sup> Manon S. Parry, “Exhibiting Human Rights: New Narratives of Global Health,” in *Inspiring Action: Museums and Social Change*, eds. Carol Brown, Elizabeth Wood and Gabriela Salgado (Edinburgh: Museums Etc, 2016): 143.

<sup>125</sup> The “International Symposium on Museums and Climate Change,” 11<sup>th</sup>-13<sup>th</sup> April 2018, Manchester Museum, Manchester, UK.

<sup>126</sup> McGhie, interview.

<sup>127</sup> Garrard, interview.

<sup>128</sup> Talanoa is based on the following questions: Where are we? Where do we want to go? How shall we get there?

<sup>129</sup> Henry McGhie, Sarah Mander and Ralph Underhill, “Engaging People with Climate Change Through Museums,” in *Handbook of Climate Change Communication: Vol 3*, eds. Walter Leal Filho et al. (Basel: Springer Nature Switzerland AG, 2019): 345.

<sup>130</sup> Manchester Museum, “Ms Adriana Valenzuela, United Nations Framework Convention on Climate Change, Bonn,” *Manchester Museum*, video, 11<sup>th</sup> July 2018. <https://www.youtube.com/watch?v=wEalBcgEQuA>

<sup>131</sup> Henry McGhie, “Museums as Key Sites to Accelerate Climate Change Education, Action, Research and Partnerships,” *The University of Manchester*, accessed on 14.12.18: <https://unfccc.int/sites/default/files/resource/Talanoa%20submission%2C%20Museums%20as%20key%20sites>

claim for the role of the existing infrastructure of museums as key sites for climate change engagement, and outlined the potential of museums to contribute meaningfully towards multi-stakeholder partnerships. The symposium demonstrates the possibility for museums to connect local and global initiatives, this time by opening channels for dialogue between the public and the government.

These types of projects are at the heart of the MCCN, however both could benefit from stronger links to one another. Following the “International Symposium on Museums and Climate Change” the MCCN experienced a boost in online interest, which Newell attributes to her introduction of the network at the event (Fig. 14).<sup>132</sup> The symposium was also promoted on the MCCN website, and although I do not have evidence that this increased attendance, it is an example of the network sharing the effective work of others that members would like to see.<sup>133</sup> Conversely, there is no mention of “Rethinking Home” on the network’s website, a partnership that Newell has in-depth knowledge of, and could add to the network’s resources. This type of endorsement could not only assist the network with its own development, but could raise the profile of the role of museums in climate change mitigation.

Although, in theory, the network connects its members across geographies, it is still experimenting with ways to make this work in reality.<sup>134</sup> Physical meetings can be effective tools for generating ideas, however there is an inherent contradiction in people travelling huge distances to discuss climate change. In response to this conundrum, Newell created a global twenty-four-hour event on Slack, an online platform for communication and file sharing, which took place on 20<sup>th</sup> February 2019. Participants were encouraged to sign in to a group conversation thread from their various locations, and share thoughts on the theme of “effective exhibitions.” The event aimed to simulate a workshop experience, where those “in attendance” contributed insights and examples, or asked for advice in a freeform and casual way.<sup>135</sup> However, as a participant in the event I found that, without the element of in-person interaction, conversations lapsed quickly into academic discourse, and suggest that it could

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%20to%20accelerate%20climate%20change%20education%2C%20action%2C%20research%20and%20partnerships.pdf

<sup>132</sup> Newell, interview.

<sup>133</sup> Members suggested that the network could share examples of the effective work being done by others. Survey for the Members of the Museums and Climate Change Network, survey response, February 2019.

<sup>134</sup> The network has not yet hosted an official event, albeit two related workshops are mentioned on the network’s website, one at the American Museum of Natural History, New York in 2013, and another at the Deutsches Museum, Munich in 2015. Museums and Climate Change Network, “Video of Workshop: Museums Collaborating Around Climate Change. Australian Museum, Sydney, 20 July 2017,” *Museums and Climate Change Network*, video, February 13, 2018. <https://mccnetwork.org/news/2018/3/18/video-of-workshop-museums-collaborating-around-climate-change-australian-museum-sydney-20-july-2017>

<sup>135</sup> Newell, interview.

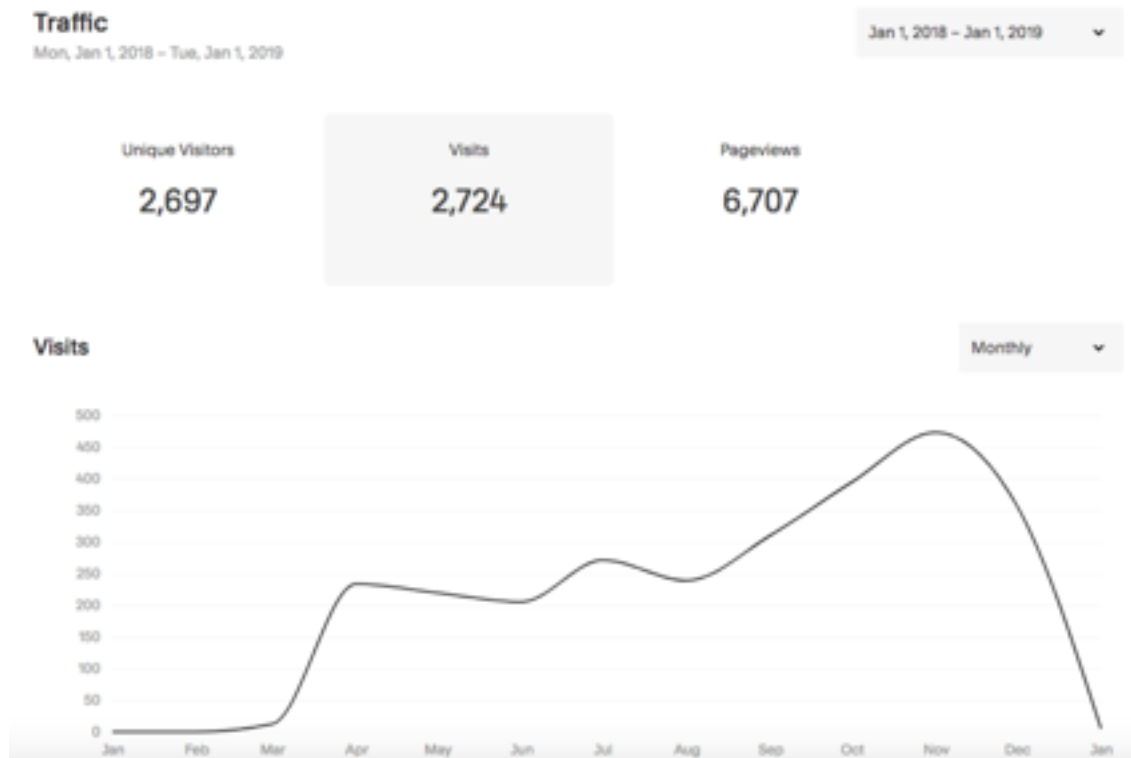


Fig. 14: Museums and Climate Change Network web-statistics showing website traffic between January 2018 and January 2019, and the peak in interest that occurred between March and April 2018, which Newell attributes to her presentation of the network as part of the programme of the “International Symposium on Museums and Climate Change.” Newell, interview.

have benefitted from a more practical focus. Nevertheless, there is much potential for the network to be using this type of low carbon technology, as it was successful in connecting members across the world virtually, with contributions offered from diverse locations including Australia, Canada, Denmark, the UK, the Netherlands, the US, Sweden and Norway.

The MCCN also proves promising in its ability to link members from different disciplines. I draw this conclusion from a conversation I had with fellow MCCN member, science communicator, Henry Evans. What was particularly striking about this communication was the fact that we had come to the same conclusion about the role of museums in mitigating climate change, but from entirely different directions. We both believe that museums are trusted sources of information, have close links with the public and specialist disciplines, and that they can offer creative alternatives to our current modes of climate change communication.<sup>136</sup> Whilst my perspective is grounded in the humanities,

<sup>136</sup> Henry Evans, interview by the author, skype interview, 12<sup>th</sup> February 2019.

Evans has a background within the scientific topics of marine biology and climate change and has worked as a science educator, running his own organisation Magnificent Ocean, since 2013.<sup>137</sup> This confirmed my belief in the potential for transdisciplinary collaborations when faced with such a complex issue, and the importance of having “allies in different disciplines,” which can be facilitated by platforms such as the MCCN.

There are, however, no examples to be found of MCCN members collaborating across disciplines, which I suggest is due to the fact that there had previously been no clear process for members to connect with one another.<sup>138</sup> This is one of the main barriers that Newell acknowledges to convening the MCCN, the other being the fact that the network is an independent initiative, which is run without dedicated time, resources, or funding from an institution.<sup>139</sup> This emphasises the vulnerability of the MCCN as a voluntarily run project, and explains why it has been difficult to maintain momentum.

Newell’s concerns were echoed by the suggestions of MCCN members, when asked how the network could be functioning in support of their work. Members suggested that the network could offer more opportunities for them to connect with not just with one another, but with other communities, organisations and departments holding a stake in the global environment. This could include conferences, online seminars, and more online content about events, exhibitions, new research and resources. In short, although the network has the potential to act as a joint “voice” for projecting the importance of museums in tackling climate change, it first needs to be forging stronger bonds between those who are already listening.<sup>140</sup>

In the current global environment, we need a more connected approach to climate change, especially when faced with growing nationalist politics, and the privileging of business agendas, which influence environmental regulations. All of this threatens our progress towards a sustainable future, as it ignores the interconnectedness of the planet and undermines any potential to work as a global community.<sup>141</sup> I view networks as being a push against this, a feeling which is reflected by the practice of MCCN member Sarah Sutton, who is Sector Lead for Cultural Institutions for the US movement We Are Still In. A coalition of

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<sup>137</sup> In April 2019, Evans will start a PhD which will qualify the practices of science museums in their endeavours to prepare us all for a sustainable future. Evans, interview.

<sup>138</sup> No obvious collaborations could be found listed on the MCCN website, or through analysis of the type of work being produced by individual MCCN members.

<sup>139</sup> Newell, interview.

<sup>140</sup> Survey for the Members of the Museums and Climate Change Network, survey responses, February 2019.

<sup>141</sup> Henry McGhie, “Climate Change Engagement: A Different Narrative,” in *Addressing the Challenges of Communicating Climate Change Across Various Audiences*, eds. Walter Leal Filho et al. (Basel: Springer Nature Switzerland AG, 2019): 15.

over 3,600 businesses, cities, counties, states, faith groups, tribes, health care, educational and cultural organisations, We Are Still In is a network of representatives, who have pledged to uphold the goals of the Paris Agreement in response to their country's lack of official co-operation.<sup>142</sup> It does this by setting out a list of commitments for its members, which reflect the type of actions that leading organisations are taking to mitigate, adapt to, and communicate climate change.<sup>143</sup> The group also shares relevant news and resources, and the contributions of its members, as well as ways for the public to get involved through promoting individual or organised action. The latter is a strategy that the MCCN is trying to adopt, but is achieving only sporadically, and although the network does not currently require its members to sign up to any formal commitments, I suggest that developing this concept could make the network a more robust operation. We Are Still In is an example of the kind of approach that may become increasingly necessary for tackling climate change under challenging global circumstances, and could therefore provide a model for others, such as the MCCN to follow.

I link networking back to the interconnected messages of Manchester Museum, which are, at least in part, the institutional iterations of the beliefs of Henry McGhie, that today it is not enough to aim to connect people with the museum, but that the museum should aim to connect people with the world.<sup>144</sup> As such, museums should strive to develop their connections, as part of a web of multiple sectors that reaches across the planet. The MCCN could be doing more to encourage museums to be working in this way, by visibly supporting and promoting the type of work that is being produced by its members, as it has with Manchester Museum. This could foster inspiration and equip others with the resources necessary to do the same, and continue to create the momentum needed to become a *movement* of museums united against climate change.<sup>145</sup>

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<sup>142</sup> In June 2017 President Donald Trump announced that he would withdraw the United States from the Paris Agreement. Although, under the terms of the agreement the earliest possible withdrawal is not until November 2020, in practice changes in US policy that are contrary to the agreement have already been put in place.

<sup>143</sup> "We Are Still In," *We Are Still In*, accessed on 14.02.19: <https://www.wearestillin.com/>

<sup>144</sup> Henry McGhie, "Climate Change Engagement: A Different Narrative," in *Addressing the Challenges of Communicating Climate Change Across Various Audiences*, eds. Walter Leal Filho et al. (Basel: Springer Nature Switzerland AG, 2019): 24.

<sup>145</sup> Newell, interview.

## Conclusion: From Information to Imagination

In a world of extremes, where denial and fear are the currency of business and the media, and government activities are viewed as insufficient, museums could offer an alternative form of climate change mitigation. The approaches being taken by museums to engage their audiences on climate issues have been considered in this project, in order to picture the role of museums in tackling this global phenomenon. Here I outline the failures and opportunities in these findings. Today, there is a need for more imagination, both in our search for climate solutions, and existing attitudes towards museum funding. Engaging with other disciplines and acknowledging fossil fuel narratives could be a start in overcoming this problem, strategies that could also offer a more “holistic” approach to climate change, and means through which museums could update their practices and reimagine their institutions. This could not only lead to the development of more innovative climate responses, but could shape a future role for museums in greater connection with global society.

My analysis of “Living Worlds” at Manchester Museum demonstrated how a museum can diversify its practices to reflect the recommendations of new museological frameworks for climate change, but also the difficulties of engaging in climate change in museums without considering the parallel museums and climate change narrative of fossil fuel sponsorship. A narrative that overshadowed the Science and Industry Museum’s ability to effectively address climate change. Rather, “Electricity” gives tacit approval to fossil fuel systems, which reinforces them and obstructs constructive change.<sup>146</sup> I suggest that the Museums and Climate Change Network (MCCN) distinguishes between the types of projects being developed by these two museums, and that it could provide a new model for the museum sector and its role in tackling climate change, one grounded in international and transdisciplinary collaboration. When combined, these three cases expose a need to rethink museum institutions, but also the failings of our current systems, which remain rooted in environmental exploitation.

We are experiencing a failure of imagination, both in terms of society’s ability to effectively address climate change, and our recognition of the potential of museums to be a fundamental part of sustainable solutions. This was well demonstrated by the conclusion of

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<sup>146</sup> Henry McGhie, Sarah Mander and Ralph Underhill, “Engaging People with Climate Change Through Museums,” in *Handbook of Climate Change Communication: Vol 3*, eds. Walter Leal Filho et al. (Basel: Springer Nature Switzerland AG, 2019): 345.



“Electricity,” which seemed to suggest that we don’t really have any other options. It is lazy and unimaginative to spread the message that there is no better alternative than the systems we currently use, by doing so the Science and Industry Museum also denies its own agency in addressing this issue. Instead, the exhibition highlights that although we need a new approach to our current situation, we lack the much-needed creativity to envisage something different.

Today there is a growing belief in the place of the humanities to address the environmental challenges being faced by society. Much of the theory cited throughout are examples of the environmental humanities, a field that can be broadly understood as producing wide-ranging responses to environmental issues by drawing on the humanities and social sciences.<sup>147</sup> As a branch of this, the emerging field of the energy humanities argues that today’s environmental and energy dilemmas are fundamentally issues of ethics, habits, imagination, values, institutions, beliefs and power, and that, as these are all traditional areas of expertise of the humanities, they are well placed to contribute their methods and insights.<sup>148</sup> Specifically, the energy humanities are a response to the growing public concern about anthropogenic climate change, and the unsustainability of the fuels that are used to power our society. This compliments my argument for the role of museums in mitigating climate change, which includes overcoming traditional boundaries between disciplines in the search for more imaginative solutions.

The energy humanities also insist that it is our current petro-culture, and the existing networks of carbon power, that make us resistant to change, and hinder our ability to imagine energy alternatives.<sup>149</sup> Thus, narratives play an important role in our current energy system, which do not necessarily need to be true, but convincing.<sup>150</sup> This is reflected in my analysis of the exhibitions in this project that have been criticised for their fossil fuel funding, and the influence that sponsors have had on their narratives, including the Smithsonian’s “Hall of Human Origins” and “Atmosphere” at the London Science Museum, in addition to the conclusions drawn from “Electricity.” If imagination is what is driving our dystopic present, what we need is a re-imagining of that system. As the study of narratives is one of the key methods of the humanities, there is a clear place for this field in such an operation. In other

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<sup>147</sup> For example, Newell’s publication *Curating the Future: Museums, Communities and Climate Change* was published by Routledge Environmental Humanities.

<sup>148</sup> Dominic Boyer and Imre Szeman, “The Rise of Energy Humanities,” *University Affairs*, last modified 12.02.14: <https://www.universityaffairs.ca/opinion/in-my-opinion/the-rise-of-energy-humanities/>

<sup>149</sup> Jeff Diamanti and Brent Ryan Bellamy, “Envisioning the Energy Humanities,” in *Reviews in Cultural Theory: Energy Humanities*, eds. Jeff Diamanti and Brent Ryan Bellamy (Edmonton: Reviews in Cultural Theory, 2016): 2.

<sup>150</sup> Bradon Smith, “Speculate, Speculation, Speculative: What Can the Energy Humanities Do?” *Journal of Literature and Science*. 10:2. (2017): 67-73.

words, if narrative, as a core concept of the humanities, also sits at the centre of energy, then new narratives are integral to constructing alternatives.<sup>151</sup>

The same is true for museums and their approach to their fossil fuel sponsorships, as illustrated by the Science Museum Group, who rely on the excuse of funding to defend against criticisms. As previously highlighted, other large museums, such as London's National Gallery, and Amsterdam's Van Gogh Museum have successfully divested from fossil fuel funding, a move which has not impaired either museum. This illustrates that funding conversations should not be a barrier that prevents museums from incorporating climate change into their programming, and that making more moral and ethical financial decisions do not limit museums' operations.<sup>152</sup> Rather, museums need to be more imaginative in their approach to funding, or consider new ways of generating income from existing resources.<sup>153</sup> Notably, for the Science Museum Group this could include using their green-energy assets, which currently includes Wroughton Solar Array, one of the largest solar farms in the UK.<sup>154</sup> This project could have provided a more suitable funding alternative for "Electricity," and an opportunity to present links between the development of renewable energy and present climate issues.

Divestment from fossil fuel funding could offer museums and other cultural institutions with the opportunity to adopt a more "holistic, well-rounded approach to climate change," as advocated by Chris Garrard from Culture Unstained.<sup>155</sup> For Garrard this means that climate justice should be woven into museums' activities, and that organisations should reduce their own operational impacts on the environment.<sup>156</sup> I extend this holistic approach to include the personal, social and cultural implications of climate issues considered in "Rethinking Home," a project that contrasted to "Electricity" in particular, as it endeavoured to move beyond the mere communication of facts and figures to engage people around the world with climate change's very human consequences. Complicity with the fossil fuel

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<sup>151</sup> Bradon Smith, "Speculate, Speculation, Speculative: What Can the Energy Humanities Do?" *Journal of Literature and Science*. 10:2. (2017): 67-73.

<sup>152</sup> Museopunks, "Episode 27: Museums Are Not Neutral," *Museopunks*, podcast audio, July 2018: <https://soundcloud.com/museopunks/s2-ep27-museums-are-not-neutral>

<sup>153</sup> Jennifer Harby, "Roadkill and Lawnmower Exhibitions: The Weird Ways Museums are Finding Funding," *BBC*, last modified 19.02.17: <https://www.bbc.com/news/uk-england-38920364>

<sup>154</sup> "Wroughton Solar Array, one of the largest photovoltaic panel arrays in the UK, generates an annual income of £25, 000 (from 2016), as well as more energy than we use." Science Museum Group, "Inspiring Futures: Strategic Priorities 2017-2030," *Science Museum Group*, accessed on 22.11.18: <https://group.sciencemuseum.org.uk/wp-content/uploads/2017/06/Inspiring-Futures-Strategic-Priorities-2017-2030.pdf>

<sup>155</sup> Garrard, interview.

<sup>156</sup> Garrard, interview.

industry prevents museums from doing either of these with integrity, as they become implicated in the environmental and human rights abuses being carried out daily by these companies.<sup>157</sup> As my examples have demonstrated, climate change should not be approached as simply a topic or a theme, but should be embedded into and throughout the practices of the museum, including both its behaviour and its reputation. This is what Newell terms the “new relationality” of museums, which she claims we need in a world that is being increasingly altered by climate change.<sup>158</sup> I suggest that divesting from fossil fuel funding should be one of the first steps, and the minimum requirement for museums wishing to achieve this new relationality, and that this may also be a way for museums to come up to speed with mainstream environmental activity.

The cases considered in this project demonstrate more opportunities for museums, as traditional institutions, to incorporate contemporary movements into their programming. In the case of Manchester Museum, I suggest that the museum missed a chance to integrate the more controversial socio-political and cultural influence of fossil fuels into the “Living Worlds” gallery. The museum could have included their own involvement in this issue, the protest which occurred in response to their hosting of “China: Journey to the East,” a BP sponsored exhibition, which could have demonstrated the self-reflexivity and willingness to admit compliance and blame that current activism is requesting of museums. Instead, the museum’s decision not to acknowledge these issues further entrenches their sensitivity within these types of institutions.

Museums can provide safe spaces for dangerous ideas to meet, which is a role that they should not be afraid to embrace.<sup>159</sup> They are places that should acknowledge their own history and their involvement in wider social truths, which involves a certain level of self-critique, and of assessing their internal practices.<sup>160</sup> This is specifically true of climate change, as a subject which bridges the past, present and future of society, interlocks both natural and multiple manmade systems, and has many different meanings for different communities. It is a problem that is grounded in complexity and uncertainty, thus it is no

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<sup>157</sup> Culture Unstained, “Complaint to the Science Museum Group,” *Culture Unstained*, accessed on 12.11.18: <https://cultureunstained.files.wordpress.com/2018/07/formal-complaint-to-the-science-museum-group-final1.pdf>

<sup>158</sup> Jennifer Newell, Libby Robin and Kirsten Wehner, “Introduction: Curating Connections in a Climate-Changed World,” in *Curating the Future: Museums, Communities and Climate Change*, eds. Jennifer Newell, Libby Robin and Kirsten Wehner (Oxon and New York: Routledge, 2017): 10.

<sup>159</sup> Fiona R. Cameron, Bob Hodge, and Juan Francisco Salazar, “Conclusion: Climate Change Engagement: A Manifesto for Museums and Science Centres,” in *Climate Change and Museum Futures*, eds. Fiona R. Cameron and Brett Neilson (New York and London: Routledge, 2015): 248.

<sup>160</sup> Museopunks, “Episode 27: Museums Are Not Neutral,” *Museopunks*, podcast audio, July 2018: <https://soundcloud.com/museopunks/s2-ep27-museums-are-not-neutral>

surprise that consensus on action has not been achieved.<sup>161</sup> Yet, museums should not be discouraged from engaging with this issue, as in the words of Henry McGhie, “we have to start somewhere, be prepared to enter new territory, try things out, be prepared to fail and learn from mistakes.”<sup>162</sup> In other words, museums must “let go,” accept the messiness and ambiguity that comes with this subject, and be willing to occupy a position in which they are not experts.

However, museums are often quite conservative institutions, which is one of the possible challenges for individuals when trying to pursue this type of uncharted work.<sup>163</sup> This reflects the ideas raised in chapter three regarding activism and museums, which whilst a challenge to museums’ traditional ways of working, could be a way for institutions to meet with mainstream movements. This is the belief of the Museums Are Not Neutral Campaign, which aims to expose the fallacy of museum neutrality claims, and calls for institutions to be taking social action.<sup>164</sup> For them, museums should be able to change as quickly as the people who work in them, whereby employees should be challenging the deeply embedded standards and protocols that have become the norm for museums.<sup>165</sup> Although easy to claim that organisational change should start at the level of the individual, this does not take into account the risks to employees’ job security, and the fact that change is often slow in reality. The MCCN can currently only offer moral support for members to bring their beliefs and concerns into their workplace, however, if the network increases its promotion of this type of work, it could help to garner the support needed from institutions to engage in “so-called controversial topics.”<sup>166</sup>

The public appeal of subjects that are of contemporary relevance may also be a way for institutions to appease conflicting stakeholders. Climate change is one of the world’s widest reported subjects, therefore incorporating it into museum programmes could increase visitor numbers and invite new audiences, which might prove convincing for decision-makers

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<sup>161</sup> Mike Hulme, “Why We *Should* Disagree About Climate Change,” in *Climate Change and Museum Futures*, eds. Fiona R. Cameron and Brett Neilson (New York and London: Routledge, 2015): 11.

<sup>162</sup> Henry McGhie, “Climate Change Engagement: A Different Narrative,” in *Addressing the Challenges of Communicating Climate Change Across Various Audiences*, eds. Walter Leal Filho et al. (Basel: Springer Nature Switzerland AG, 2019): 18.

<sup>163</sup> Newell, interview.

<sup>164</sup> Museums Are Not Neutral is a Twitter campaign that was established in 2017 by curator, LaTanya S. Autry and museum educator, Mike Murawski.

<sup>165</sup> Museopunks, “Episode 27: Museums Are Not Neutral,” *Museopunks*, podcast audio, July 2018. <https://soundcloud.com/museopunks/s2-ep27-museums-are-not-neutral>

<sup>166</sup> Manon S. Parry, “Exhibiting Human Rights: New Narratives of Global Health,” in *Inspiring Action: Museums and Social Change*, eds. Carol Brown, Elizabeth Wood and Gabriela Salgado (Edinburgh: Museums Etc, 2016): 149.

and investors.<sup>167</sup> Conversely, to avoid such a subject could be damaging for museums, especially, as seen in chapter three with the Science and Industry Museum, when it requires the museum to reassess its current practice.<sup>168</sup> Museums are not neutral, but nor are they autonomous, now is a time for acknowledging this and for more productively developing these entanglements. Part of this might mean diversifying museum practices, but also finding new ways to connect the perspectives of their multiple, sometimes competing stakeholders.

In chapter four I considered how Manchester Museum uses its network to produce positive climate initiatives, and how I see this as an extension of its values of interconnectedness. Conversely, as part of the Science Museum Group, the Science and Industry Museum uses its network in a very different way, as a tool to extend their international reach, and the “soft power” of the British government.<sup>169</sup> “Soft power” is a persuasive approach to international relations, typically involving the use of economic or cultural influence. Touring exhibitions such as “Electricity” are a large part of the Science Museum Group’s role in this, which they use to grow and strengthen their “sphere of influence,” through strategic collaborations and targeted stakeholder engagement.<sup>170</sup> “Electricity” is therefore an example of the type of work that the Science Museum Group has developed to promote itself internationally, and to foster supporting relationships between the UK and other countries. When compared to the mission of the MCCN, and the projects being produced by members such as Manchester Museum, this is a cynical exercise of the networked potential of museums, and could be another means through which to promote the influence of the fossil fuel industry. This underlies the fact that, in addition to being neither neutral or autonomous, museums are often used for morally and ethically dubious purposes.

I view the MCCN as a resistance to this use, which could, if developed, provide an effective model for the museum sector to adopt. For if it is possible to export culture in the way that the Science Museum Group does, then it should also be possible to export activist culture too. Activism is how I define the activities of these museums, due to the politicised

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<sup>167</sup> Media and Climate Change Observatory, “2018 Year End Retrospective,” *International Collective on Environment, Culture and Politics*, accessed on 15.03.19:

[https://sciencepolicy.colorado.edu/icecaps/research/media\\_coverage/summaries/special\\_issue\\_2018.html](https://sciencepolicy.colorado.edu/icecaps/research/media_coverage/summaries/special_issue_2018.html)

<sup>168</sup> Manon S. Parry, “Exhibiting Human Rights: New Narratives of Global Health,” in *Inspiring Action: Museums and Social Change*, eds. Carol Brown, Elizabeth Wood and Gabriela Salgado (Edinburgh: Museums Etc, 2016): 149.

<sup>169</sup> Science Museum Group, “Inspiring Futures: Strategic Priorities 2017-2030,” *Science Museum Group*, accessed on 22.11.18: <https://group.sciencemuseum.org.uk/wp-content/uploads/2017/06/Inspiring-Futures-Strategic-Priorities-2017-2030.pdf>

<sup>170</sup> Science Museum Group, “Annual Report and Accounts 2017-18,” *Science Museum Group*, accessed on 22.11.18: <https://group.sciencemuseum.org.uk/wp-content/uploads/2018/07/SMG-Annual-Report-Accounts-2017-2018.pdf>

nature of climate change, which I argue produces a new type of activist museum education. By following the approach of the MCCN, and becoming part of a movement of museums committed to tackling climate change, institutions may converge with activism, but also secure their own importance, by choosing to serve the interests of global society, over private business or government initiatives.

Recognition of the potential for museums to act as part of a network is already happening, and is starting to be incorporated into international climate planning. In September 2018, at the Global Climate Action Summit, specific recommendations were made for museums as part of global climate action. One of these was to develop a “climate resources map” of the cultural sector, which would document and measure current climate related activity, and visualise opportunities for partnerships that would support further solutions.<sup>171</sup> In the same year, ICOM announced its Working Group on Sustainability, whose mission is to help mainstream the UN’s SDGs and the Paris Agreement throughout the existing infrastructure of museums.<sup>172</sup> The Paris Agreement also identifies a place for museums as part of a networked, fluid system of multi-sector co-operations, which show a willingness to undertake and promote collective action in their different communities.<sup>173</sup> It is here that the MCCN could play a vital role, by mapping and connecting the disparate fields and organisations already working to advance climate stabilisation.<sup>174</sup>

By “letting go” of the systems that they have become so comfortable with, museums could become one of the vital actors in developing a more positive and inclusive vision of the future. As an alternative, rather than an antidote, to our current modes of climate change communication, and part of the need for a more imaginative approach out of which fields such as the environmental and energy humanities have emerged. Climate change presents an enormous challenge for humanity, yet it also presents an opportunity for museums to realise

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<sup>171</sup> Sarah Sutton, “The Future is Climate,” *American Alliance of Museums*, last modified 01.10.18: <https://www.aam-us.org/2018/10/01/the-future-is-climate/>

<sup>172</sup> International Council of Museums, “Working Group on Sustainability,” *International Council of Museums*, last modified 11.11.18: <https://icom.museum/en/news/icom-establishes-new-working-group-on-sustainability/>

<sup>173</sup> Article 12 of the Paris Agreement states: “Parties shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information, recognising the importance of these steps with respect to enhancing actions under this Agreement.” In Fiona Cameron, “Stirring Up Trouble: Museums as Provocateurs and Change Agents in Polycentric Alliances for Climate Change Action,” in *Addressing the Challenges of Communicating Climate Change Across Various Audiences*, eds. Walter Leal Filho et al. (Basel: Springer Nature Switzerland AG, 2019): 648.

<sup>174</sup> Survey for the Members of the Museums and Climate Change Network, survey response, February 2019.

their social potential.<sup>175</sup> By “letting go” museums can effectively “step up” to their social roles and responsibilities, and save themselves from potential irrelevancy.

Overcoming climate change will be easier done together, as part of a global community who recognise the value of interconnectedness. This is also true for museums, as there are huge benefits to institutions working in unison or with members of other communities, to deliver broad and effective public engagement with climate change. Networks offer potential for imaginative and innovative collaborations with others to take place, but also the potential to be bolder and more ambitious.<sup>176</sup> If museums took the risk of relinquishing some of their traditions, of rethinking the assumptions and forms of their organisations, they could explore innovative or unexpected partnerships, which could enable new types of action and activism to flourish, to empower people and imagine more hopeful future narratives.<sup>177</sup> This has already started, and as the MCCN demonstrates, there is already a community who believe in the potential of museums to help elevate climate change. As with any different approach, this role needs to be promoted if it is to be embraced on a wider scale, so that it can become less of a protest, and more of a paradigm shift.

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<sup>175</sup> Henry McGhie, “Climate Change Engagement: A Different Narrative,” in *Addressing the Challenges of Communicating Climate Change Across Various Audiences*, eds. Walter Leal Filho et al. (Basel: Springer Nature Switzerland AG, 2019): 13.

<sup>176</sup> Garrard, interview.

<sup>177</sup> Fiona R. Cameron, Bob Hodge, and Juan Francisco Salazar, “Conclusion: Climate Change Engagement: A Manifesto for Museums and Science Centres,” in *Climate Change and Museum Futures*, eds. Fiona R. Cameron and Brett Neilson (New York and London: Routledge, 2015): 248.

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# Appendix

## Survey for the Members of the Museums and Climate Change Network



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15<sup>th</sup> February 2019

### **Survey for the members of the Museums and Climate Change Network (MCCN)**

For return by **Friday 1<sup>st</sup> March 2019** to [georinakate.mcdowall@gmail.com](mailto:georinakate.mcdowall@gmail.com)

Please provide answers to the following two questions using specific examples:

1. Can you explain your reasons for joining the MCCN and your expectations?  
Did you join the network because of projects you have already done, or because of projects you would like to do?
  
2. Can you suggest ways in which the MCCN could support your work?

Thank you for your involvement,  
Georgina McDowall