

The Museum as Enabler

THE ROLE OF MUSEUMS IN THE CLIMATE EMPOWERMENT OF
YOUNG PEOPLE.

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Abstract

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Building on Paulo Freire's *Pedagogy of the Oppressed*, I argue that children and young people can be seen as an oppressed group, having to suffer the impact of the climate crisis as consequence of the shortcomings of older generations. As a result of this adult inaction, young people have increasingly been suffering from climate anxiety, and thus, feel that they must take matters into their own hands in the hope of mitigating the climate crisis. Based on earlier research on the inherent strengths and responsibilities of museums, I assert that museums can be fitting institutions to act on the needs of young people. Specifically, this thesis reflects upon the different approaches that museums have been using so far to empower children and young people responding to the climate crisis.

In this thesis, I discuss four different case studies - Natural History Museum, Framer Framed, the Klimaatmuseum, and the Climate Museum UK - and analyse their various activities through the lens of empowerment, using the definition of empowerment by Camilla Schreiner, Ellen Henriksen, and Pål Kirkeby Hansen and Freire's *Pedagogy of the Oppressed*. This analysis illustrates how each of these four museums approach climate empowerment in varying and diverse ways, with each focussing on different prerequisites of climate empowerment: the Natural History Museum focuses on providing information, Framer Framed on creating a safe atmosphere, the Klimaatmuseum on inspiring its visitors, and the Climate Museum UK on activating its participants. Comparing these four approaches, five reoccurring characteristics stand out: 1. creating a safe space for dialogue and practice, 2. presenting an open image of the future, 3. providing the necessary tools, attitudes, and skills, 4. engaging with local communities, and 5. supporting the creativity of young people. Based on these five elements, I propose an innovative approach for museums to engage with young people concerning the climate crisis: "the museum as an enabler," centred around the *enablement* of young people in their own self-empowerment, taking action into their own hands – with the support of museums.

Table of Contents

TABLE OF IMAGES	3
ACKNOWLEDGEMENTS	4
INTRODUCTION: MUSEUMS AND CLIMATE EMPOWERMENT	5
LITERATURE REVIEW: THE CLIMATE RESPONSIBILITY OF MUSEUMS	12
MUSEUM EDUCATION AND CLIMATE CHANGE	14
YOUNG PEOPLE AND CLIMATE CHANGE	19
THEORETICAL FRAMEWORK: YOUNG PEOPLE AS THE OPPRESSED	23
EMPOWERMENT	23
PAULO FREIRE AND <i>THE PEDAGOGY OF THE OPPRESSED</i>	26
MUSEUMS FOR THE OPPRESSED.....	28
THE MUSEUM AS	31
... INFORMATION SOURCE: NATURAL HISTORY MUSEUM	31
ANALYSIS	36
THE MUSEUM AS INFORMATION SOURCE	39
... SAFE SPACE: FRAMER FRAMED	41
ANALYSIS	45
THE MUSEUM AS SAFE SPACE.....	49
... INSPIRATION: THE KLIMAATMUSEUM	51
ANALYSIS	54
THE MUSEUM AS INSPIRATION	60
... ACTIVATION: THE CLIMATE MUSEUM UK	62
ANALYSIS	66
THE MUSEUM AS ACTIVATION	69
THE MUSEUM AS ENABLER	71
PRACTICING EMPOWERMENT	71
TOWARDS THE UNCERTAIN FUTURE	73
CLIMATE TOOLS, COMMUNITY ENGAGEMENT, AND CREATIVITY	74
THE MUSEUM AS ENABLER	77
CONCLUSION	78
BIBLIOGRAPHY	83

Table of Images

FIGURE 1: PENN, ALBERT. “MY SPECIES REALLY CAN MAKE A DIFFERENCE TO OUR PLANET” & “BETTER-FOR-THE-PLANET BOWLS”. PHOTOGRAPH. THE LIMINAL SPACE. 2021.....	33
FIGURE 2: LAMB, HILLARY. OUR BROKEN PLANET. PHOTOGRAPH. E&T MAGAZINE. 2021.....	35
FIGURE 3: ADVOCATE ENGAGEMENT MODEL. DIAGRAM. NATURAL HISTORY MUSEUM. 2019.	37
FIGURE 4: HAMELINK, RUBEN. COURT FOR INTERGENERATIONAL CLIMATE CRIMES. PHOTOGRAPH. FRAMER FRAMED. 2021.....	41
FIGURE 5: KINDERATELIER FRAMER FRAMED. PHOTOGRAPH. TOEVAL GEZOCHT. 2021.....	42
FIGURE 6: SHARED ARTWORK OF ELANCE PARTICIPANTS, MADE DURING THE ARTEZ WORKSHOP. PHOTOGRAPH. FRAMER FRAMED. 2021.....	44
FIGURE 7: JUDGES AT THE KLIMAATMAKERS AUCTION. PHOTOGRAPH. HET KLIMAATMUSEUM. 2021.	52
FIGURE 8: VISITORS ANSWERS TO “HOW DO WE TREAT NATURE?” AND “WHAT DO WE EAT”. PHOTOGRAPH. HET KLIMAATMUSEUM. 2020.....	54
FIGURE 9: VISITORS ANSWERS TO “WHAT ENERGY SOURCE DO WE USE?” AND “WHICH CLOTHS DO WE WEAR?”. PHOTOGRAPH. HET KLIMAATMUSEUM. 2020.	58
FIGURE 10: VISITORS ANSWERS TO “HOW DO WE TRAVEL?” AND “WHAT DO WE EAT”. PHOTOGRAPH. HET KLIMAATMUSEUM. 2020.	59
FIGURE 11: MCKENZIE, BRIDGET. “THE WILD MUSEUM”. PHOTOGRAPH. FLICKR. 2021.	63

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Introduction: Museums and Climate Empowerment

On the ninth of September 2018, Greta Thunberg – at the time a 15-year-old student – decided to start protesting outside of the Swedish parliament coining the famous words “Skolstrejk för klimatet” – school strike for climate.¹ She was not alone; internationally, millions of students have come outside to protest, drawing attention to the immediacy of the climate crisis and the necessity for urgent action by governments worldwide.² These international protests represent a larger change in society, showing that the climate crisis is no longer – if it has ever been – an issue for adults alone. The challenges concerning rising temperatures have reached as good as every person. Climate change is no longer simply a topic of scientific research but is present in every facet of society and has been covered by different cultural fields, permeating the museum sector, the media, and is influencing the private lives of individuals.³ With the growing awareness concerning the climate crisis, young people have become increasingly aware of the root causes and dire consequences of the climate’s deteriorating condition. Writers such as David Rousell and Amy Cutter-Mackenzie-Knowles go as far as arguing that the growing awareness of the human impact on the environment is leading children and young adults to experience feelings of existential anxiety regarding the future.⁴ More than being cognisant of the problems concerning climate change, young people are aware of the moral and political implications of these discussions. On top of this, young people have increasingly tried to involve themselves in the climate discussions – such as with the international climate strikes – driven by the fact they are due to disproportionately suffer the consequences of the rising global temperature.⁵

Raising awareness on topics concerning climate change and its coverage in museum exhibitions is therefore a relevant topic to research as museum education can answer the needs of young people in three manners. First and foremost, museums spaces are still seen as a reliable source of factual information.⁶ By offering insight into the polarised debates whilst also focussing on the social and cultural dimensions surrounding climate change,

¹ Hattenstone, ‘The Transformation of Greta Thunberg’.

² ‘Strike Statistics’.

³ Rousell and Cutter-Mackenzie-Knowles, ‘A Systematic Review of Climate Change Education’, 191.

⁴ Rousell and Cutter-Mackenzie-Knowles, 191–92.

⁵ Rousell and Cutter-Mackenzie-Knowles, 191–92.

⁶ Dichtl, ‘Most Trust Museums as Sources of Historical Information’.

museums are able to empower young people by broadening their perspective beyond mere scientific discourse.⁷ Secondly, informing visitors can stimulate psychological changes concerning the climate crisis, such as a shift in attitude towards planet earth or modifying the emotional response from concerned to hopeful.⁸ Thirdly, museums can – through their unique epistemic position – instigate discussions and even direct action. By organising activities together with local communities and grassroots organisations, museums can have an impact on both local and systematic policymaking, offering young people the possibility to dictate their own future.⁹ In order for museums to respond to this societal need, it is therefore necessary to rethink their role within this crisis. However, this requires an intrinsic motivation for change; other extrinsic motives such as greenwashing, the influence of stakeholders, and visitor numbers, will have a less sustainable and even counterproductive impact on the museum and its visitors, and often fulfil empty promises.

In the last decade, the museum sector has been actively engaging with the climate crisis in diverse ways, often focussing on the empowerment of visitors and in doing so instigating action.¹⁰ This empowerment of the visitors can be especially useful for young people as their voices are often overlooked in the debate on the climate crisis. Therefore, this thesis will focus on projects developed for children. More specifically, I look to research projects and educational material developed for children and young adults – between the age of 8 and 18 years old – regarding the climate crisis, and how these approaches can be used to empower their target audiences. However, one can question if it is the responsibility of young people to solve this climate crisis. Should museums burden their young visitors with the task of saving the future of humanity, and as a result increase eco-anxiety? With this in mind, the research question discussed in this thesis is: What approaches do museums use to empower children and young people in the context of the climate crisis? To answer this question, I will conduct a comparative study between the different approaches used in four museums – the Natural History Museum, Framer Framed, the Klimaatmuseum, and the Climate Museum UK – by

⁷ Rousell and Cutter-Mackenzie-Knowles, 'A Systematic Review of Climate Change Education', 196–97.

⁸ Swim et al., 'Climate Change Education at Nature-Based Museums', 113.

⁹ Cameron, Hodge, and Salazar, 'Representing Climate Change in Museum Space and Places', 15–16.

¹⁰ Newell, 'Climate Museums'.

analysing how these exhibitions and educational programs bring young people into contact with the climate crisis, and what impact they have on young visitors.

The selection of case studies consists of museums hosting temporary exhibitions, as well as museums that have a constant focus on the climate crisis in their permanent collections. In doing so, this thesis tries to represent a larger change taking place in the museum world in which existing museums are reinventing themselves in light of the climate emergency, and new museums with a sole focus on the changing climate are being founded.¹¹ The focus of the pre-existing museums was not relevant to my analysis as the climate crisis is a theme that can be tackled by any museum, regardless of whether it focuses on art, science, history, etc. Other criteria factored into my selection are, firstly, the need for the exhibition to have climate change as their principal focus, and secondly, the provided educational material to be centred around kids or young people up to the age of eighteen. The final selection consists of four museums of which two are situated in the Netherlands and two in the United Kingdom. This selection was made based on practical reasons such as language and distance, subsequently limiting this research to a Eurocentric focus.

The Natural History Museum at South Kensington in London is the first case study. Having declared a planetary emergency in 2020, the Natural History Museum has rethought its mission statement towards a more sustainable strategy with a strong focus on using the museum's resources to create "a future where both people and the planet thrive."¹² The specific exhibition analysed in this thesis, is *Our Broken Planet: How We Got Here and Ways to Fix It*, in which the museum analyses the planetary crisis through three different lenses: food, materials, and energy.¹³ *Our Broken Planet* has a target audience of thirteen- to thirty-five-year-old visitors, but additional activities are hosted in the exhibition space to appeal to an even younger public. The exhibition is complemented by a program of online conversations aimed at the same audience.

¹¹ Newell, 601.

¹² 'A Planetary Emergency: Our Response Strategy to 2031'.

¹³ 'Our Broken Planet'.

The second case study is Framer Framed, a cultural institution based in Amsterdam.¹⁴ Their exhibitions and projects focus on topical issues using contemporary art, rarely choosing to shy away from controversial sociological and political themes. The specific exhibition that will be analysed in this thesis is titled *Court for Intergeneration Climate Crimes* created by Radha D’Souza, “an Indian academic, writer, lawyer, and activist”, in partnership with Jonas Staal, a Dutch artist.¹⁵ D’Souza and Staal questioned the existing laws in which a company has only one corporate personality – leaving the involved individuals out of reach of the law. They argue that the current legal system falls short of the prosecutions of climate crimes, and thus, chose to enact their own improved law in a four-day trial against Unilever, ING, Airbus and the Dutch state. The exhibition itself was not aimed at children, however, during the school holidays, Framer Framed organised activities for young people that relate to the *CICC* exhibition.

The third case study is the Klimaatmuseum, which translates to ‘Climate Museum’.¹⁶ This museum does not have a fixed location and travels around the Netherlands setting up at different locations in collaboration with other local organisations. Their pop-up exhibitions display contemporary – and sustainable – art commenting on the climate crisis, with the idea that artists can provide insight into the climate crisis. Their most recent project *Klimaatmakers* was a collaboration of three artists and around 500 children. The artists each created their own artwork/invention inspired by the ideas given by the children.

The last case study discussed in my thesis is the Climate Museum UK.¹⁷ The Climate Museum UK describes itself as an activist museum that holds events and creative workshops both for children and adults. Since the museum has no fixed location – similar to the Dutch Klimaatmuseum – they work through partnerships with other organisations such as museums throughout the UK but also host their own workshops and activities, described by the museum as “activations”. The aims of the different projects organised by the Climate Museum UK is to inform their visitors, but even more so to activate them in a trauma-sensitive way. By

¹⁴ ‘CICC’.

¹⁵ ‘CICC’.

¹⁶ ‘Het Klimaatmuseum - Homepage’.

¹⁷ ‘Climate Museum UK’.

focussing on the climate crisis, the participants are stimulated to reflect on this theme, the viable possibilities for the future, and potential actions to take in response to those futures.

All four case studies will be analysed in terms of their engagement with children and young people. This thesis will analyse the engagement in the exhibitions – if applicable – and in the public programs, workshops, or activities they offer for children and young people. For each case study, a representative of the museum was interviewed to gain an insight into the content and the course of the activities, and more generally the aims and ideas of the museum. For the Natural History Museum, two people were interviewed: Conor O’Keeffe, a Creative Producer at the museum who was involved in the creation of *Our Broken Planet* and the production of the online series linked to this exhibition, and Claire Forster, who was hired in November 2021 as Learning Producer at the Natural History Museum to develop, both online resources for teachers to use in their lessons, and activities to host within the exhibition space.¹⁸ Noa Bawits was interviewed as representative for Framer Framed’s education team for which she organises and hosts the programming for primary and secondary education.¹⁹ The education team develops activities that are either independent or connected to the temporary exhibition hosted at the time. Bawits was involved in the creation of the activities inspired by the *Court for Intergeneration Climate Crimes*.²⁰ For the Klimaatmuseum, I interviewed the founder, Laura van Rutten. She is directly involved in the creation of all exhibitions and workshops as head of the still-growing museum.²¹ Lastly, Bridget McKenzie was interviewed as a representative of the Climate Museum UK. She is the founding director of the museum and is actively involved in the functioning of the museum as the museum has a “fluid and holacratic structure.”²² She also creates and organises new workshops, both for other museums and for children and young people.²³

All four interviews were semi-structured and conducted within the timespan of one month between the 3rd of February and the 3rd of March 2022. Afterwards, the interviews were

¹⁸ O’Keeffe and Foster, Interview Natural History Museum on Youth Engagement related to Our Broken Planet.

¹⁹ ‘Noa Bawits’.

²⁰ Bawits, Interview Framer Framed.

²¹ ‘Jaarverslag 2020: Het Klimaatverslag - Een Onvergetelijke Zomer’.

²² McKenzie, ‘Climate Museums UK’, 672.

²³ McKenzie, Interview Climate Museum UK on Youth Engagement.

transcribed and used as data to analyse the unique approaches of the four museums. I selected key quotes reflecting the ideas of the interviewees to illustrate my argumentation. These semi-structured interviews form the main source of this thesis as it was not possible for me to participate in the activities for young people due to various reasons such as my age, my influence on the group atmosphere, and the timing and the location of the activities. Through these interviews, I was able to learn about the specifics of the activities and the ideas these activities are based on.

The four selected museums have diverse methods of approaching the topic of the climate crisis and how they cater to children, resulting in case studies that might not always be suitably comparable. For example, as the Natural History Museum has a strong focus on in-exhibition engagement, this case study varies more strongly from the three others as these are activity-focused. That's why I aim to provide an overview, discussing each case study by itself. The selected case studies will therefore form the structure of my thesis, analysing the different museums, each within a dedicated chapter. It is only at the end that I will bring the individual case studies together within a comparative chapter, hoping to uncover similarities and differences between the varying methods. In this manner, I hope to answer the question of how very different museums are trying to play a role in the empowerment of young people in overcoming the climate crisis.

First, this thesis will look into the role of museums in the climate crisis in a broader context. Why and how museums have engaged with the climate crisis, and how are they taking up a role within the needed societal change towards a more sustainable future? After, I look into the educational and public programming of museums, gauging their capacity to empower participants and – in particular – young people. I then discuss why it is important to have those activities focus on young people. This is followed up by the theoretical framework used in this thesis that builds on the definition of empowerment by Camilla Schreiner, Ellen Henriksen and Pål Kirkeby Hansen, and Paulo Freire's work *The Pedagogy of the Oppressed*. The case studies are then analysed, each in a separate chapter, and are discussed together in the final chapter. I found that the four museums each have their own approach to climate empowerment, with each focussing on different prerequisites of empowerment: the Natural History Museum focuses on providing information, Framer Framed on creating a safe

atmosphere, the Klimaatmuseum on inspiring its visitors, and the Climate Museum UK on activating the participants. On reflection of these case studies, I propose a new approach for museums which focuses on *enabling* young people to empower themselves, taking action into their own hands as they grapple with the ongoing climate crisis.

Literature Review: The Climate Responsibility of Museums

In 1992, the American Museum of Natural History held the first climate exhibition focussing on the scientific side of the issue. In the sixteen years following this exhibition, museums focussed on informing visitors about the climate crisis and the science behind it.²⁴ It is only in 2008, writes Jennifer Newell, that climate change was well known enough for museums – in New York, Melbourne, and Rotterdam – to organise exhibitions on the social and cultural dynamics of rising global temperatures. During the last decade, museums have increasingly made the shift to presenting climate change as a cultural issue.²⁵ On the one hand, museums have become “more comfortable with creating multi-dimensional, creative, emotive presentations considering impacts of the climate crisis on societies and their ecologies”. On the other hand, it has become clear that in order to mitigate the climate crisis, there is a need for real societal change.²⁶ Museums have started to engage with the topic of climate change on a more regular basis, developing sustainable strategies, hosting temporary exhibitions, or organising projects for visitors in hope of a better future.²⁷ These changes of the last decade go further than exhibitions and projects organised by established organisations and museums. In recent years there has been an increase in museums built and founded with a sole focus on climate change and the planet’s future, as part of a shift in response to the growing emergency.²⁸

This thesis builds on the idea that museums can instigate positive change.²⁹ The idea that museums can be agents of change is not new and has been reiterated by various academics such as Fiona Cameron, Henry McGhie, Sarah Sutton, etc.^{30, 31, 32} The strength of museums as actors in the climate crisis lies in the opportunity to combine nature and science with culture.³³ In doing so, museums can respond to the need for a mental shift within society

²⁴ Newell, ‘Creative Collaborations’, 147.

²⁵ Newell, Robin, and Wehner, ‘Introduction: Curating Connections in a Climate-Changed World’, 6–7.

²⁶ Newell, ‘Creative Collaborations’, 147.

²⁷ Sutton, ‘The Evolving Responsibility of Museum Work in the Time of Climate Change’.

²⁸ Newell, ‘Climate Museums’, 613.

²⁹ Murawski, *Museums as Agents of Change*.

³⁰ Cameron, Hodge, and Salazar, ‘Representing Climate Change in Museum Space and Places’.

³¹ McGhie, *Mobilising Museums for Climate Action: Tools, Frameworks and Opportunities to Accelerate Climate Action in and with Museums*.

³² Sutton, ‘The Evolving Responsibility of Museum Work in the Time of Climate Change’, 619.

³³ Newell, ‘Creative Collaborations’, 147.

towards a more sustainable approach, away from the ideals that led us to exploit the world's resources and pollute the environment, such as colonialism, industrialism and capitalism.³⁴ Thanks to their unique position within society, as Richard Sandell states, museums can not only reflect society but also shape collective values.³⁵ He argues that museums have the moral agency to instigate social and political change.³⁶ Sandell's arguments are similar to Bennett's museum as a place for civic reform, as it can shape the visitors through their exhibitions.³⁷ In a time of crisis in which actions taken by governments seem to be insufficient, the unique position of museums in society gives them the agency to stimulate meaningful change. Museums are to some extent the middleman in a society in which governments and multinational companies actively defer responsibility to the individual citizen.³⁸ As McGhie explains in an interview, museums fulfil a specific function within society and because of this have a lot of freedom since "they are not quite civic society, but are not the state either."³⁹ Furthermore, Sutton argues that "museums hold in one body the diverse physical and intellectual resources, abilities, creativity, freedom, and authority to foster the changes the world needs most."⁴⁰ Museums possess the capacity to have an impact on the visitor's view and understanding, and thus engage the visitors into taking action.⁴¹ It is this opportunity to influence society that is of great importance within this research, as exhibitions and projects on climate change can advocate and support behavioural change towards a more eco-friendly attitude.⁴² However, to do so, museums need to reimagine themselves and their practices, as Rodney Harrison and Colin Sterling argue.⁴³ How then can museums use this position to address issues such as climate change through their public and educational programming?

³⁴ Harrison and Sterling, 'Museums Otherwise: A Compendium of Possible Futures', 8.

³⁵ Sandell, *Museums, Moralities and Human Rights*, 135.

³⁶ Sandell, 7.

³⁷ Bennett, 'The Exhibitionary Complex'.

³⁸ Nasr, *De Fundamenten*, 61.

³⁹ Latham, 'Henry McGhie: Curating a Sustainable Future', min. 2:42-2:50.

⁴⁰ Sutton et al., 'Museums and the Future of a Healthy World', 151.

⁴¹ Sutton, 'The Evolving Responsibility of Museum Work in the Time of Climate Change', 619.

⁴² Cameron, 'From Mitigation to Creativity: The Agency of Museums and Science Centres and the Means to Govern Climate Change', 90–91.

⁴³ Harrison and Sterling, *Reimagining Museums for Climate Action*.

Museum education and climate change

Sutton emphasizes the potential of museums to be an active factor in society and to inspire others to act. She argues that museums have the right characteristics to address and help tackle systematic crises, such as the climate crisis.⁴⁴ Although there are various approaches for a museum to fulfil their share in mitigating the climate crisis, this thesis will specifically focus on education and engagement with visitors and local communities, rather than internal innovations and/or the transitioning of a museum's management into a more sustainable model – though they are equally necessary. Sutton argues that museums' public and educational programming has "the potential to raise awareness, even call[ing] people to action."⁴⁵

Striking in the existing literature is the overwhelming presence of climate education in science and natural history museums. These articles focus on developing methods of engaging visitors on a deeper level than informing, keeping socio-emotional and behavioural in mind.^{46, 47, 48} Climate change is an all-encompassing problem that is entangled with society and its structures, including science and culture. As described, in the last fifteen years there has been a surge in museums focussing on the cultural dimension of the climate crisis. This change can be illustrated by the recent phenomenon of climate museums, but also the growing number of art exhibitions covering the changing climate, as documented by Jennifer Newell.⁴⁹ Although this shift is covered in literature, the literature on education remains rather science-focused or is discussed in a more general understanding. Art museums and institutions have been engaging with the topic of climate change but have been less actively engaged in supporting behavioural and structural change. I would argue however that both scientific and cultural museums can have a lasting impact on visitors through their educational program and direct engagement with the visitors.

⁴⁴ Sutton, 'The Evolving Responsibility of Museum Work in the Time of Climate Change', 632.

⁴⁵ Sutton, 624.

⁴⁶ Swim et al., 'Climate Change Education at Nature-Based Museums', 101–3.

⁴⁷ Monroe et al., 'Identifying Effective Climate Change Education Strategies'.

⁴⁸ Rousell and Cutter-Mackenzie-Knowles, 'A Systematic Review of Climate Change Education', 197–98.

⁴⁹ Newell, 'Climate Museums'.

The importance of museums and their education on the climate crisis is made clear in Article 6 of the United Nations Framework Convention on Climate Change (UNFCCC) and Article 12 of the Paris Agreement. These two articles focus on Action for Climate Empowerment, consisting of six different elements: Education, Training, Public Awareness, Public Access to Information, Public Participation, and International Co-operation.⁵⁰ In the toolkit “Mobilising Museums for Climate Action”, Henry McGhie elaborates on these six elements and how museums specifically can help with Action for Climate Empowerment. He writes: “Incorporate education on climate change in programmes wherever possible, using appropriate pedagogies that promote not only knowledge but attitudes and skills to address climate change. Education is not restricted to schools, but is lifelong.”⁵¹ As McGhie writes, education can focus on spreading knowledge, but more importantly attitudes and skills. These three goals offer various ways to go about climate education, each with different outcomes. Other research confirms McGhie’s findings, as it shows that in order to support the climate empowerment of visitors, all three – knowledge, attitude, and skills – are important and interconnected with each other.^{52, 53, 54} When trying to obtain behavioural change through museums, these three approaches should be taken into account: firstly, visitors should be informed on the scientific, social and cultural level of climate change; secondly, the visitors should be challenged to engage on a psychological level and reflect on their perceptions and attitudes; and thirdly, the museums should actively interact with the visitors and assist them in taking action.

Museum education can help by informing people during their museum visit, but also outside of the museum itself through outreach programs and online spaces.⁵⁵ As Newell mentions, the first exhibitions on this topic focussed solely on exploring and explaining the science of climate change.⁵⁶ A first hurdle museums often experience when discussing climate change and trying to encourage sustainable behaviour, is a “lack of climate literacy”.⁵⁷ As Swim and

⁵⁰ McGhie, *Mobilising Museums for Climate Action: Tools, Frameworks and Opportunities to Accelerate Climate Action in and with Museums.*, 94.

⁵¹ McGhie, 95.

⁵² Bentz and O’Brien, ‘ART FOR CHANGE’, 4.

⁵³ Schreiner, Henriksen, and Kirkeby Hansen, ‘Climate Education’, 8.

⁵⁴ Rousell and Cutter-Mackenzie-Knowles, ‘A Systematic Review of Climate Change Education’, 202.

⁵⁵ Rousell and Cutter-Mackenzie-Knowles, 197.

⁵⁶ Newell, ‘Creative Collaborations’, 147.

⁵⁷ Swim et al., ‘Climate Change Education at Nature-Based Museums’, 102.

colleagues discuss, all too often school education is seen as the solution for this insufficient knowledge of basic science. This is problematic as reforming school education can only help the coming generations, and do not focus on the people that are currently in charge of decision making. Museums are thus an important factor in acquiring climate literacy, as they can have an impact on all ages.⁵⁸ However, research by Dijkstra and Goedhart has shown that being informed with the correct scientific knowledge does not necessarily lead to pro-environmental behaviour.⁵⁹ Climate change is a cultural issue, consequentially a scientific approach does not suffice.⁶⁰ In order to create a sustainable change, Swim and colleagues argue that there is a need for an increase in both psychological and behavioural engagement by the visitor.⁶¹ The evolution in museums from an approach focussing on the scientific aspect of the climate crisis towards a more social and cultural minded approach has been a positive development as the cultural dimension of climate change increasingly plays into the emotions and the attitudes of the visitors.

Building on the findings of Dijkstra and Goedhart, Rousell and Cutter-Mackenzie-Knowles argue that cooperative, interdisciplinary, participatory, place-based, and experiential learning programs do have an impact on young people's attitudes towards climate change.⁶² Affect-driven activities are better suited when trying to involve the visitors in the issue of climate change and call them to action.⁶³ According to Rousell and Cutter-Mackenzie-Knowles, museums can be fitting locations for these affect-driven activities due to their wide range in interactive media and their focus on immersive learning.⁶⁴ It is through psychological engagement that visitors will reconsider their attitude towards the climate and the importance of sustainability.⁶⁵ Only as visitors – and society as a whole – adapt their attitude towards a more pro-environmental one can a paradigm shift take place.^{66, 67} In addition, Cameron argues that in order to achieve visitor engagement in the climate debate, it is

⁵⁸ Swim et al., 102.

⁵⁹ Dijkstra and Goedhart, 'Development and Validation of the ACSI', 744.

⁶⁰ Newell, 'Creative Collaborations', 147.

⁶¹ Swim et al., 'Climate Change Education at Nature-Based Museums', 105.

⁶² Rousell and Cutter-Mackenzie-Knowles, 'A Systematic Review of Climate Change Education', 196.

⁶³ Rousell and Cutter-Mackenzie-Knowles, 196.

⁶⁴ Cameron, Hodge, and Salazar, 'Representing Climate Change in Museum Space and Places', 9–10.

⁶⁵ Swim et al., 'Climate Change Education at Nature-Based Museums', 113.

⁶⁶ Rousell and Cutter-Mackenzie-Knowles, 'A Systematic Review of Climate Change Education', 196.

⁶⁷ Newell, 'Creative Collaborations', 156.

important to host exhibitions with a more future-oriented narrative, in combination with related societal issues, engaging with local communities, and more.⁶⁸ By focussing on a brighter future, visitors can gain hope and act to make this future possible, as a pessimistic outlook can often be disempowering.⁶⁹

Rousell and Cutter-Mackenzie-Knowles have shown that museums can do more than educate their visitors on the scientific knowledge and involve them on a socio-emotional level; quoting Salazar: “Museums must not only inform citizens, but also equip them with the right knowledges and epistemologies to participate in actions and debates around climate change.”⁷⁰ By providing the right tools, visitors can take action into their own hands. Also, Swim and colleagues argued that museums can help to increase both the visitor’s psychological and behavioural engagement with the climate crisis.⁷¹ An important insight is provided by Lauren Allen and Kevin Crowley. They argue that to achieve effective climate change education, there is a need for behavioural change adjusted to the scale of the problem and aligned with the needs of those taking action. Their research shows the importance of “increasing collective efficacy”, which they define as “the sense that one’s actions, in combination with the actions of one’s community and those with whom values are shared, have the capacity to make the desired impact.”⁷² Allen and Crowley confirm the above findings that knowledge does not suffice to instigate behavioural change, however, neither do attitudes and personal values.⁷³ Collective identity and emotions have a stronger influence than scientific knowledge, hence the importance of collective efficacy as it “encompasses people’s emotions, knowledge, and identity as they relate to their community, all of which have been demonstrated to be important predictors of and influences on climate-friendly behaviour.”⁷⁴ Allen and Crowley provide three principles based on their research: participation, relevance and interconnectedness.⁷⁵ Similarly to Allen and Crowley, Sutton argues for “community-collaboratory participatory research”, a concept she borrowed from

⁶⁸ Cameron, Hodge, and Salazar, ‘Representing Climate Change in Museum Space and Places’, 10–11.

⁶⁹ Allen and Crowley, ‘Moving beyond Scientific Knowledge’, 302.

⁷⁰ Salazar, ‘The Mediations of Climate Change’, 124.

⁷¹ Swim et al., ‘Climate Change Education at Nature-Based Museums’, 105.

⁷² Allen and Crowley, ‘Moving beyond Scientific Knowledge’, 300.

⁷³ Allen and Crowley, 301.

⁷⁴ Allen and Crowley, 303.

⁷⁵ Allen and Crowley, 304.

Hoffman.⁷⁶ By engaging with local communities, museums can respond to the needs of the community together with the community itself. Through such engagement, museums might be able to impact both individuals and local governments, creating opportunities for possible collaboration between museums and these partners in the near future.⁷⁷ The key point here is that museums need to work together with local communities as they are “experts on their own lives, needs and surroundings.”⁷⁸

The strength of museum education lies not just in the learning that takes place within the museum building and exhibitions, but also in its possibility to reach out to the local community. Just as Allen and Crowley, Newell sees the museums “as a place to make things happen.”⁷⁹ The museum is a platform to connect communities that otherwise would struggle to interact, as it offers a “relatively safe space” to discuss difficult topics.⁸⁰ I assert that young people can be seen as such a community. Nonetheless, museums should be aware of their position within these discussions as they are inherently tied to certain structures and can still be seen as intimidating institutions. Hence, they should continually be open to feedback and requests by the engaging communities – willing to accommodate to their needs and concerns.⁸¹ Linking this to what Henry McGhie argued, museums can support visitors and local communities by offering information and the needed skills, accompanied by attitudinal changes. These three strengths of the museum can help the visitors to implement sustainable changes within their personal life and more structurally. In short, museums’ educational programs should engage with the participant on three levels: informational, socio-emotional and behavioural. As museums are increasingly focussing on the climate crisis and readjusting their educational and public programming to become more impactful, why should museums specifically help young people to feel empowered? How can youth engagement help young people in creating the change that is needed?

⁷⁶ Hoffman, ‘Learn, Prepare, Act’.

⁷⁷ Sutton, ‘The Evolving Responsibility of Museum Work in the Time of Climate Change’, 628.

⁷⁸ Allen and Crowley, ‘Moving beyond Scientific Knowledge’, 307.

⁷⁹ Newell, ‘Creative Collaborations’, 155.

⁸⁰ Newell, 144.

⁸¹ Newell, 155.

Young people and climate change

“I like being human because I know that my passing through the world is not predetermined, pre-established. That my destiny is not a given but something that needs to be constructed and for which I must assume responsibility. [...] Consequently, the future is something to be developed through trial and error rather than an inexorable vice that determines all our actions.”

Freire 1998 [1992], 54.

This quote from Paulo Freire’s book *A Pedagogy of Freedom* highlights the agency humans have when shaping the future. This notion of agency forms the basis of this thesis, believing that humans, and specifically young people, can have an impact on the course of the future and hopefully influence the climate for the better. However, this agency also places a great responsibility on humanity and young people, who are often presented as future leaders.⁸² This responsibility placed on children and young people to save the future contradicts the existing perception of children as vulnerable victims of climate change with almost no agency of their own.⁸³ This perception of passive recipients is also reflected in the limited opportunities to voice concerns about the climate crisis.⁸⁴ This lack of agency is even more concerning when comparing the effects of the climate crisis on adults as opposed to young people; Pia Treibel states that children are disproportionately affected by the climate crisis both physically and psychologically.⁸⁵

Children and young people are confronted daily with the consequences of the climate crisis, the various cultural conflict arising from the changing climate, and the increasingly moralising and politicising discourses on these issues.⁸⁶ Permeating the everyday lives of young people and their communities, the climate crisis has slowly taken over various domains of society.⁸⁷ Due to the impossibility of escaping the various issues related to climate change and

⁸² Rousell and Cutter-Mackenzie-Knowles, ‘A Systematic Review of Climate Change Education’, 192.

⁸³ Williams and McEwen, “Learning for Resilience” as the Climate Changes’, 1638.

⁸⁴ Rousell and Cutter-Mackenzie-Knowles, ‘A Systematic Review of Climate Change Education’, 192.

⁸⁵ Treichel, ‘Why Focus on Children: A Literature Review of Child- Centred Climate Change Adaptation Approaches’, 26.

⁸⁶ Rousell and Cutter-Mackenzie-Knowles, ‘A Systematic Review of Climate Change Education’, 191–92.

⁸⁷ Rousell and Cutter-Mackenzie-Knowles, 191.

apocalyptic visions of the future, young people are starting to experience existential anxiety.⁸⁸ Research has proven that the impact of the climate crisis is affecting the mental health of young people.⁸⁹ Caroline Hickman and her colleagues conducted a survey across ten different countries worldwide, asking young people between the age of 16 and 25 years old how they were feeling concerning the climate crisis and what their perception was of their government's responses. They found that 60% of the respondents were very or extremely worried about climate change. Furthermore, 45% indicated that their feelings about the climate are negatively impacting their lives.⁹⁰

As Hickman and her co-researchers write, climate anxiety is seen as constructive or practical anxiety that can engage people into the needed action. However, there is another layer to young people's stress in addition to their vulnerability: Adult inaction.⁹¹ The lack and unwillingness of adults and governments to take action to prevent damage caused by the rising global temperature can be seen as a harmful act, which Hickman et al describe eloquently as "government's failure of ethical responsibility to care".⁹² In the survey, 60% of the respondents rated their government's response negatively, experiencing emotions such as betrayal, confusion and abandonment.⁹³ Furthermore, when young people deemed their government's response to the climate crisis inadequate, they had more negative thoughts towards the climate crisis and worried more.⁹⁴ "Thus, climate anxiety in children and young people should not be seen as simply caused by ecological disaster, it is also caused by more powerful 'others' (adults and governments) failing to act on the threats being faced".⁹⁵

In their article, Hickman et al discuss possible solutions to the issue of climate anxiety, such as psychological resources, techniques to cope, and more importantly for this thesis, "the 'agency' to address and mitigate stressors".⁹⁶ On the one hand, people in power must take the appropriate and much-needed actions, while on the other hand, young people can be part

⁸⁸ Rousell and Cutter-Mackenzie-Knowles, 192.

⁸⁹ Thompson, 'Young People's Climate Anxiety Revealed in Landmark Survey'.

⁹⁰ Hickman et al., 'Young People's Voices on Climate Anxiety, Government Betrayal and Moral Injury', 5.

⁹¹ Hickman et al., 3.

⁹² Hickman et al., 3.

⁹³ Hickman et al., 7.

⁹⁴ Hickman et al., 7.

⁹⁵ Hickman et al., 9.

⁹⁶ Hickman et al., 8.

of a collective instead of an individual pro-environmental response.⁹⁷ Anxiety caused by climate change and the inaction of the older generations can thus be countered partly by giving back the agency to children and young people. This may happen in several different ways, not least by taking their feelings and concerns seriously. More directly, impatient for governmental action, young people have started to act themselves and take matters into their own hands by “turning to legal action based on government’s failure to protect the ecosystems and their futures,” and in doing so make their voices heard.⁹⁸ Legal bodies recognise the interrelation between human rights, climate anxiety and climate change, building on the concept of “Climate criminology”.⁹⁹ Climate change endangers the lives of young people, and thus when a government or company does not take upon their responsibilities, this can be seen as a violation of human rights.¹⁰⁰ According to the United Nations “Climate change threatens the effective enjoyment of a range of human rights including those to life, water and sanitation, food, health, housing, self-determination, culture and development.”¹⁰¹ How can museums help young people deal with the impactful emotions and events they are experiencing?

Museums have been increasingly engaging with the climate crisis within their programming; not just with the scientific aspect of climate change, but also, more importantly, with the social and cultural aspect as well. Moreover, museums have the capacity to engage with visitors on a deeper cognitive level beyond merely providing information to them. As pedagogical institutions, they can also influence the socio-emotional understanding and actions of visitors, providing individuals with “knowledge, attitudes, and/or skills to contribute meaningfully to climate action”.¹⁰² Museum education on climate change should consider the “head, hands and heart” of the visitor.¹⁰³ Reconciling the challenges that young people face and the capacity that museums have in mitigating and adapting to the climate crisis, museum

⁹⁷ Hickman et al., 8.

⁹⁸ Hickman et al., 3.

⁹⁹ Hickman et al., 9.

¹⁰⁰ Hickman et al., 3.

¹⁰¹ ‘OHCHR and Climate Change’.

¹⁰² McGhie, *Mobilising Museums for Climate Action: Tools, Frameworks and Opportunities to Accelerate Climate Action in and with Museums.*, 35.

¹⁰³ Bentz and O’Brien, ‘ART FOR CHANGE’, 4.

education and public programming can offer a means to engage with young people, empowering them through their practices.

Theoretical Framework: Young People as the Oppressed

Empowerment

A key concept in this thesis is ‘empowerment’, more specifically the empowerment of young people. It has been proven that the climate crisis impacts young people heavily and that doom and gloom scenarios often leave young people feeling hopeless and disempowered.^{104, 105} Meanwhile, young people are seen as an important group when it comes to countering the changing climate as they are the next generation that must do better – above all for their own sake.¹⁰⁶ However, research by Caroline Hickman and her colleagues has shown that young people feel abandoned, and are worried about the climate crisis and its impacts on them.¹⁰⁷ In their article “Art for Change”, Bentz and O’Brien refer to multiple studies that have proven how focussing too strongly on negative consequences of the climate crisis can lead to inaction.¹⁰⁸ If young people are to be seen as “system changers”, it is in the best interest of young people and humanity to take them and their concerns seriously.¹⁰⁹ Prior to young people becoming “system changers”, they need to find their strength as “environmental empowerment [is seen as] as a prerequisite to action.”¹¹⁰

“Students must feel a personal sense of investment in an issue before they can act authentically on that issue. An empowered student can take the action necessary to achieve his/her aims by combining knowledge and skills with motivation, attitudes, hope and visions. Students must believe that even though their actions are small scale, they do lead to empowerment and further action (Schreiner, Henriksen & Hansen, 2005).”¹¹¹

This quote shows that there are different aspects involved in feeling a sense of empowerment. Camilla Schreiner, Ellen Henriksen, and Pål Kirkeby Hansen divide the prerequisites for empowerment into two categories: motivation and knowledge.¹¹² On the

¹⁰⁴ Treichel, ‘Why Focus on Children: A Literature Review of Child- Centred Climate Change Adaptation Approaches’, 26.

¹⁰⁵ Allen and Crowley, ‘Moving beyond Scientific Knowledge’, 302.

¹⁰⁶ Bentz and O’Brien, ‘ART FOR CHANGE’, 1.

¹⁰⁷ Hickman et al., ‘Young People’s Voices on Climate Anxiety, Government Betrayal and Moral Injury’, 7.

¹⁰⁸ Bentz and O’Brien, ‘ART FOR CHANGE’, 3.

¹⁰⁹ Bentz and O’Brien, 1.

¹¹⁰ Schreiner and Sjøberg, ‘Empowered for Action?’, 53.

¹¹¹ Hayden et al., ‘Pedagogies of Empowerment in the Face of Climate Change Uncertainty’, 120.

¹¹² Schreiner, Henriksen, and Kirkeby Hansen, ‘Climate Education’, 8.

one hand, the motivational side entails having a hopeful image of what the future will encompass, feeling like they have an influence on that future, adhering personal importance to the issue of climate change.¹¹³ This approach to motivation is a rather individualist approach and does not look at the wider social and cultural context of the persons involved – though the authors acknowledge this.¹¹⁴ Lauren Allen and Kevin Crowley explain in their article how collective efficacy plays a great role in the process of empowerment and undertaking action, as collective identities have a “powerful influence” on individual actors.¹¹⁵ Defining collective efficacy as “the sense that one’s actions, in combination with the actions of one’s community and those with whom values are shared, have the capacity to make the desired impact”, it becomes clear that in order to empower an individual, their values have to be supported by the group they are part of.¹¹⁶

On the other hand, adequate knowledge is an indispensable aspect of empowerment. This knowledge goes further than scientific understanding, and also encompasses knowledge about “possible adequate actions in terms of personal lifestyle, technical solutions and political measures” and “possible channels of influence through politics, organizations, etc.”¹¹⁷ Without the right tools for further action, the motivation of the empowered ceases at their will to act. As the attention of visitors has become a commodity that various organisations and companies compete for, it is not self-evident that young visitors will spend time researching possible methods to create change. In an information-rich world, time is becoming a scarce resource, and in order to attract people’s attention it is essential to “reduce the amount of necessary labour time and increase the amount of relative surplus value.”¹¹⁸ Said in simpler words, if young people are expected to spend time on researching tools for climate action, this time should be as short as possible for the most valuable information, possibly even directly provided by the museum.

¹¹³ Schreiner, Henriksen, and Kirkeby Hansen, 8.

¹¹⁴ Schreiner, Henriksen, and Kirkeby Hansen, 31.

¹¹⁵ Allen and Crowley, ‘Moving beyond Scientific Knowledge’, 302.

¹¹⁶ Allen and Crowley, 300.

¹¹⁷ Schreiner, Henriksen, and Kirkeby Hansen, ‘Climate Education’, 8.

¹¹⁸ Celis Bueno, *The Attention Economy*, 79.

The process of climate empowerment does not stop there. Hayden and colleagues argue that “students need to practice being empowered, to have a safe space in which to carry out learning and actions regarding climate change.”¹¹⁹ Furthermore, they suggest that “environmental clubs, youth groups, student councils and other such groups can help students to achieve smaller, more localized actions and changes.”¹²⁰ I argue that museums can be both, a space wherein young people can practise their empowerment, and an organization that can help them in obtaining their (local) goals. There are other variations of what it means to be empowered and what prerequisites are needed. Bentz and O’Brien for example add ‘responsibility’ as another factor for motivation and empowerment,¹²¹ while Hayden and colleagues split Schreiner, Henriksen, and Hansen’s characteristics into smaller prerequisites.¹²² Even so, this thesis will build on the above-mentioned interpretation of empowerment by Schreiner, Henriksen, and Hansen, with the addition of collective efficacy by Allen and Crowley and the need for practice as mentioned by Hayden and colleagues. In conclusion, “Environmentally empowered persons feel that they can make a difference in the world, both by daily, personal choices related to lifestyle, and by influencing democratic decision processes.”¹²³ They know what to do, how to do it, and feel supported by their surroundings.

Nonetheless, it is not up to the empowered young people to solve this crisis. Their actions need to be accompanied by large-scale changes enacted by governments, companies, and the society at large. Hayden et al write that “when student action leads to no large-scale policy change, students/youths can begin to feel that while their small-scale local actions are effective, the real change that needs to be happening is beyond their circle of influence.”¹²⁴ Research conducted by the Climate Museum UK in partnership with A New Direction – a non-profit organisation based in London that aims to generate “opportunities for children and young people to develop their creativity”¹²⁵ – found that young people are all too often seen as eco-activists that must save the future.¹²⁶ As many young people are anxious about the

¹¹⁹ Hayden et al., ‘Pedagogies of Empowerment in the Face of Climate Change Uncertainty’, 120.

¹²⁰ Hayden et al., 121.

¹²¹ Bentz and O’Brien, ‘ART FOR CHANGE’, 13.

¹²² Hayden et al., ‘Pedagogies of Empowerment in the Face of Climate Change Uncertainty’, 121.

¹²³ Schreiner, Henriksen, and Kirkeby Hansen, ‘Climate Education’, 8.

¹²⁴ Hayden et al., ‘Pedagogies of Empowerment in the Face of Climate Change Uncertainty’, 121.

¹²⁵ ‘About Us’.

¹²⁶ ‘A New Direction Listening Project: Young Londoners, and the Response of Culture to the Earth Crisis.’, 23.

future, they start demanding change, however, this only applies to a specific group of young people. The image of the young eco-activist is wrongfully extrapolated to an entire generation. Furthermore, young people should not be “burdened with the challenge of saving the planet” as they are asking everybody to participate in creating a sustainable planet.¹²⁷ It is everyone’s responsibility to create a sustainable planet, not just the generations that will suffer the consequences.

Having defined what empowerment entails, I will conduct further research into how museum education can play a role in the empowerment of children and young people based on the discussed prerequisites. How does education help children and young people to feel empowered? In the following section, I discuss the pedagogical theory developed by Paulo Freire concerning the empowerment of students in an effort to apply it to the museological context of young people responding to the climate crisis.

Paulo Freire and the Pedagogy of the Oppressed

This thesis is unique in its approach as it builds on *the Pedagogy of the Oppressed* by Paulo Freire and links this theory to the climate empowerment of young people. Freire’s *Pedagogy of the Oppressed* starts by criticising what Freire calls the banking model.¹²⁸ This method of education is based on an unequal relationship between students and teachers. The teacher holds the power and possesses the knowledge, while the students simply need to adsorb these facts and reproduce them. Freire argues that this perpetuates the continuation of the unequal educational system, forcing students to conform to it rather than becoming critically minded individuals.¹²⁹ It is the banking model that leads to the continuation of inequality and even justifies it. Instead, Freire theorised his pedagogy based on a problem-posing model. In this model, the teacher lets the students engage with worldly problems and analyses them together looking for the causes and the functioning of these problems. It is through understanding these problems, that the students learn to critically analyse and simultaneously question their own current situation.¹³⁰

¹²⁷ ‘A New Direction Listening Project: Young Londoners, and the Response of Culture to the Earth Crisis.’, 23.

¹²⁸ Freire, *Pedagogy of the Oppressed*, 58.

¹²⁹ Freire, 58–60.

¹³⁰ Freire, 66–69.

Another aspect wherein the Pedagogy of the Oppressed differs from the banking model is the position of the teacher. While in the banking model the teacher stands above the students in the hierarchical pyramid, the teacher and students in Freire's pedagogy are equal to each other and they learn together. The teacher is not this authoritarian figure anymore, but becomes a student as well, a "student-teacher".¹³¹ It is because of this reciprocal relation that it is made sure that the change comes from within the students and is not imposed upon them by the teacher.¹³² In later works, Paulo Freire elaborates on his Pedagogy of the Oppressed with a bigger focus on hope. Also in these works, he explains the student-teacher relation as "the person in charge of education is being formed or reformed as s/he teaches, and the person who is being taught forms her/himself in this process."¹³³

Freire's framework emphasizes the need for dialogue, discussing together with the oppressed student what they want and what needs to change. Nonetheless, dialogue can only take place when both parties are equal and feel free to express their needs and opinions. When all conditions – love, humility, and faith – are met, dialogue can reinforce the equality between speakers as it develops into "a horizontal relationship of which mutual trust between the dialoguers is the logical consequence."¹³⁴ In order to move forward via this dialogue, hope and critical thinking are key.¹³⁵ However, dialogue and critical thinking alone do not suffice as this leads to "verbalism."¹³⁶ In the need to avoid empty words and promises, reflection and action should always be combined with the concept of "praxis".¹³⁷ Freire explains praxis as a combination of reflection and action, as both are equally important in the process of change and strengthen each other. Empowerment and change can only be sustainable when both reflection and action are present.¹³⁸

Freire's approach can help educators to realise how their educational practices can be of relevance to the challenges of tackling social and climatological issues.¹³⁹ Although Freire's

¹³¹ Freire, 67.

¹³² Freire, 67.

¹³³ Freire, *Pedagogy of Freedom. Ethics, Democracy and Civic Courage.*, 31.

¹³⁴ Freire, *Pedagogy of the Oppressed*, 79–80.

¹³⁵ Freire, 80–81.

¹³⁶ Freire, 75.

¹³⁷ Freire, 75.

¹³⁸ Freire, 75–76.

¹³⁹ Kumar, 'Paulo Freire's Pedagogy of the Oppressed: Book Summary'.

Pedagogy of the Oppressed cannot give a final answer to this question, it can guide the educators in their challenge by offering a method to approach their education. Building on Freire's theories, I argue that children and young people can be seen as an oppressed group too, having to suffer the consequences of the current neo-liberal capitalist society – depleting the earth's resources and its changing climate indefinitely. The current system can be seen as the oppressor as it is colonising the future of young people, and adult inaction is contributing to this oppression.¹⁴⁰ In my thesis, I will unravel the role museums may play in empowering young people to take action in a world where their voice seems to be forgotten.

The parallel between *the Pedagogy of the Oppressed* and the situation of the young people in the climate crisis does not match entirely. The first part of Freire's pedagogy is solely focused on finding issues within society and trying to uncover them. However, within the context of the climate crisis young people have already made clear what the issue is and have even demanded change from governments and multinational companies. Young people have already busted the myth – using Freire's terms – that climate change can be stopped through individual action, passing on the responsibility to the individual including young people. This does not mean, however, that Freire's Pedagogy of the Oppressed is not relevant for the issue of climate change.

Museums for the Oppressed

Applying Freire's pedagogy to a museum setting, it is important to not only inform young visitors about the current systems and their shortcomings but to also show actions that have already previously been taken, reflecting the need for future solutions.¹⁴¹ More specifically, the education program can be used to engage with children and young people on the issue of climate change, by placing their needs as a starting point for educational programming.¹⁴² Beyond empowering children themselves, museums can also reach the local communities these young people are part of through their engagement activities. Williams and McEwen argue that children and young people also have an impact on their parents and other adults

¹⁴⁰ Van Reybrouck, 'The Colonisation of the Future. Living on the Brink of the Climate Catastrophe'.

¹⁴¹ Bhattacharya, 'Education as Empowerment', 405–6.

¹⁴² Hickman et al., 'Young People's Voices on Climate Anxiety, Government Betrayal and Moral Injury', 9.

within their personal circles. Therefore, young people cannot be overlooked when it comes to instigating climate action.¹⁴³

To do this, museum projects have to respond to the needs of the children and young people themselves, not to the needs of the museum, although these may sometimes overlap in the process of tackling the climate crisis. In order to respond to young people's anxiety, their voices must be taken into account.¹⁴⁴ It has become clear through the global climate strikes such as those organised by "Fridays for Future" that young people are demanding immediate action by adults and governments alike.¹⁴⁵ However, this cannot happen when there is no dialogue, or when teachers – or in the case of the climate crisis, adults – do not take the oppressed voices into account. In the same way that Freire rethinks the relation between students and teachers, museums can reimagine their role as a student-teacher, manufacturing a public space where mutual dialogue can be facilitated in a supportive and non-judgemental atmosphere.¹⁴⁶ Students and student-teachers are alike and learn simultaneously with and from each other. It is now up to museums to act based upon the requests of young people, involving them in this process. It is imperative that museums actively invests in creating such an atmosphere by positioning themselves as equal student-teachers, particularly given that museums are part of the current system and are, thereby, closely intertwined with the systemic problems that are pre-eminent causes to the climate crisis.¹⁴⁷ Due to their position as an unsafe and unbalanced space, it is thus necessary for museums to be aware of their unique position within society and how this can impact the visitors and local communities engaging with it. The process of addressing these issues should occur in consultation with the people involved, removing all possible barriers that might inhibit visitors from making use of the museum space.¹⁴⁸

Museums thus know what problem young people want to focus on and what they would like to solve. It is up to museums to get started and initiate projects in which they go into dialogue

¹⁴³ Williams and McEwen, "Learning for Resilience" as the Climate Changes', 6.

¹⁴⁴ Hickman et al., 'Young People's Voices on Climate Anxiety, Government Betrayal and Moral Injury', 8.

¹⁴⁵ 'Our Demands'.

¹⁴⁶ Newell, 'Creative Collaborations', 144.

¹⁴⁷ Sutton, 'The Evolving Responsibility of Museum Work in the Time of Climate Change', 632.

¹⁴⁸ Newell, 'Creative Collaborations', 154.

with young people and children, open to learning themselves and even taking up action and change if asked. Only with an equal relationship between the museums and young people, can real change happen.¹⁴⁹ Nonetheless, dialogues on their own will not solve the issue of climate change. As discussed above, informing does not suffice when trying to instigate climate action, it is necessary to connect knowledge to affective practices. Freire's concept of praxis – combining reflection and action – can offer a means to achieve societal change. Freire argues that good action is always accompanied by reflection, and vice-versa, that critically analysing society only makes sense when action is taken to change it. If museums want to help empower young people, they have to do more than have conversations with children and young people, they need to reflect on their own practices and take action. However, praxis is not just for the student-teacher but is also an important aspect for the oppressed to consider. In the context of climate empowerment of young people, the museum activities should entail both reflection and action, as Freire states that both are necessary to transform the world and its structures.¹⁵⁰ Empowerment can only be sustainable when both reflection and action are present.

What follows is an analysis of the four case studies through the two core concepts of empowerment and the Pedagogy of the Oppressed. First, I analyse the museum activities based on key issues surrounding empowerment, including motivation, knowledge, and collective efficacy. Secondly, the museums will be studied through the lens of Pedagogy of the Oppressed, more specifically taking into account the problem-based model, the position of the student-teacher, the importance of dialogue, and the concept of praxis. Through this approach I hope to uncover the various manners by which museums aim to empower young people through their activities. What aspects of empowerment do the selected museums focus on?

¹⁴⁹ Freire, *Pedagogy of the Oppressed*, 67.

¹⁵⁰ Freire, 75.

The Museum as ...

Within this Chapter, I discuss the four different case studies and analyse their various activities through the lens of empowerment. Using the definition of empowerment and Paulo Freire's Pedagogy of the Oppressed, this chapter looks at how the Natural History Museum, Framers Framed, the Klimaatmuseum, and the Climate Museum UK engage with young people and children on the topic of climate change. What approaches do museums use to empower children and young people in the context of the climate crisis? How do the museums' activities support young people?

Instead of finding one specific role that the four museums play in the process of empowering young people, it became clear that each museum has a distinct approach to empowering young people through its activities, emphasizing one or more specific aspects important to the museum. As there is not one overarching approach to climate empowerment, the title "The Museum as ..." remains incomplete as it cannot entail the four different methods discussed. The incompleteness leaves space for other approaches by museums that are not covered in this thesis, suggesting that an ideal approach to the climate empowerment of young people is still to be found. Instead, it is only possible to finish the title when discussing one particular case study where it is possible to discern a specific approach. Nonetheless, in the discussion, I attempt to create one approach for museums to use for the climate empowerment of young people, based on the shared characteristics of all four case studies.

... Information Source: Natural History Museum

In May 2021, the Natural History Museum in London opened *Eating the Earth*, the first part of the new exhibition called *Our Broken Planet: How We Got Here and Ways to Fix It*. During the following months, the other two parts *Nature for sale* and *Climate Emergency* opened, with each of the sections addressing the current planetary crisis through a different lens: Food production, material extraction, energy consumption, and its impacts on the earth. These issues are discussed in the exhibition through two questions: What is causing these problems, and how can humans change their behaviour and systems to create a more sustainable way

of living?¹⁵¹ The exhibition fits into a bigger change that the Natural History Museum is undergoing, as Newell writes that “In London, the Natural History Museum, in an inspiring shift announced in January 2020, is focused on creating advocates for the planet.”¹⁵² The mission statement of the Natural History Museum makes a clear statement on climate change, and the human impact they refer to as “our own destructive impact on the planet.”¹⁵³ The museum aspires to “a future where both people and the planet thrive.”¹⁵⁴ In their recent strategy aimed at 2031, the Natural History Museum states that they want to create “advocates for the planet”, which they describe as “individuals who feel sufficiently informed, confident and motivated to make wise decisions, to get involved, and to use their influence and actions to make a positive difference to the global future.”¹⁵⁵ The *Our Broken Planet* exhibition cannot be seen as a separate, one-off action by the museum, but is part of a larger effort to address the urgent climate crisis. Nevertheless, this thesis will only focus on *the Our Broken Planet* exhibition – still ongoing at the time of writing – and the activities made as a component of or related to the exhibition.

The case study of the Natural History Museum differs from the other case studies as most of the interaction with children and young people takes place within the exhibition itself, which was developed for a target audience between thirteen- to thirty-five-year-olds. Similar to the exhibition *Court for Intergenerational Climate Crimes* of Framer Framed, the *Our Broken Planet* display forms the basis and background of various activities organised for the visitors of the Natural History Museum. The exhibition has a very interactive display with sound, video, tactile opportunities, and various artistic elements provided by an external agency called The Liminal Space, such as a mirror with the text “My species really can make a difference to our planet” or a blackboard where the visitors can compose their future meals.¹⁵⁶ Conor O’Keeffe – Creative Producer at the Natural History Museum and involved in

¹⁵¹ ‘Our Broken Planet’.

¹⁵² Newell, ‘Climate Museums’, 601.

¹⁵³ ‘Our Vision and Strategy’.

¹⁵⁴ ‘A Planetary Emergency: Our Response Strategy to 2031’.

¹⁵⁵ ‘A Planetary Emergency: Our Response Strategy to 2031’.

¹⁵⁶ ‘Our Broken Planet’.

Our Broken Planet – explained that with this less traditional method of display, the museum tries to add a “more coloured informal voice into the space.”¹⁵⁷



Figure 1: Penn, Albert. “My species really can make a difference to our planet” & “Better-for-the-planet Bowls”. Photograph. The Liminal Space. 2021. Source: <https://www.the-liminal-space.com/all-projects/our-broken-planet>.

Other than the display itself, the Natural History Museum is also hosting in-exhibition activities hosted by science educators, and in doing so, actively engage visitors with the contents of the exhibition.¹⁵⁸ Currently, the museum is still in the process of developing new interactions in the space as they noticed that though the target audience is aimed at thirteen and up, quite a lot of families with young children are wandering in. As an answer to this, the museum has been and still is developing new manners for children to engage with the exhibition. One of the already existing activities within the exhibition is a higher-lower kind of game, in which the science educator asks the visitors which of the presented foods – soya beans, crickets, steak, and cod – has a higher or lower amount of protein, and link this to the environmental impact of the foods. The activities can be adjusted to the age of the audience, for example for younger children the game can be visualised with props or specimens.¹⁵⁹ Another activity to engage the visitors is the comparison between two gloves – one made by a fast fashion brand, and one by a more sustainable brand –, consequently starting a conversation about fast fashion and the barriers that can hold people back, such as the price

¹⁵⁷ O’Keeffe and Foster, Interview Natural History Museum on Youth Engagement related to Our Broken Planet.

¹⁵⁸ O’Keeffe and Foster.

¹⁵⁹ O’Keeffe and Foster.

represented by the label attached to the gloves. In both activities, the abstract issues related to the climate crisis have been made more tangible for the visitors.¹⁶⁰

Further, Claire Foster – Learning Producer at the Natural History Museum – mentioned a possible “role play supermarket activity” in which the children can *shop* various supermarket items and at the supposed checkout, they would go in an open-ended conversation with the science educator about the environmental impact of these products, etc.¹⁶¹ The Natural History Museum is also looking into activities to increase engagement with the target audience as well, stimulating conversation. However, their research has shown that direct conversations can scare off young people. Trying to find a balance, the museum is developing a new activity on fast fashion as it ties into the interests of the targeted audience. By displaying plain t-shirts with labels containing questions and facts covering the “impact of fast fashion on the environment, on communities, and on wildlife,” but also discussing the greenwashing of brands and how to find correct information about the production process of clothing.¹⁶² At the time of writing, most of these in-exhibition activities aimed at children and young people are still in development.

In addition to the exhibition and its in-exhibition activities, the museum offers a variety of additional resources related to *Our Broken Planet*. First and foremost, the museum hosted a series of online events by which it tried to connect the target audience “with the urgent global issues facing our planet, convening international and diverse voices and offering a platform for powerful stories and discussions about the challenges we face living in a Planetary Emergency.”¹⁶³ In order to appeal to a younger audience, the content of the events was “more action-based, solution-focused, and convening young voices.”¹⁶⁴ For these events, a lot of young climate activists were invited, making sure people of the target audience felt represented. Conor O’Keeffe explained that the museum has “to remain politically neutral with [its] messaging,” but by inviting various activists, the museum could offer a variety of

¹⁶⁰ O’Keeffe and Foster.

¹⁶¹ O’Keeffe and Foster.

¹⁶² O’Keeffe and Foster.

¹⁶³ O’Keeffe to Wouters, ‘Interview on “Our Broken Planet” - Master Thesis’, 23 February 2022.

¹⁶⁴ O’Keeffe and Foster, Interview Natural History Museum on Youth Engagement related to Our Broken Planet.

possible approaches and actionable tips to the participants.¹⁶⁵ Originally planned to be in person, the events lost a part of their interactivity with the public as a result of having to move online because of the Covid-19 pandemic. To maintain a certain level of engagement with this age group, the museum hosted some of the events on Instagram and is planning to do even more so in the future. In doing so, they hope not only to attract more young people but also hope to offer “tangible actionable kind of tools to go forward.”¹⁶⁶



Figure 2: Lamb, Hillary. *Our Broken Planet*. Photograph. E&T Magazine. 2021, 1 October. Source: <https://eandt.theiet.org/content/articles/2021/10/exhibition-review-our-broken-planet-at-the-natural-history-museum/>.

Important to note is the involvement of young people during the development phase of the events. The museum hosted two trial events – one on YouTube and one via Instagram live – in cooperation with young people from the Youth Advisory Panel, building on their suggestions and afterwards receiving feedback from them. This was not a one-time effort as the Natural History Museum often works together with groups of young people to test run their new activities or events. The museum has a kick-starter group of young employees that are involved in the production of the in-exhibition activities, and for the development of school resources based on *Our Broken Planet*, the museum works with the Teacher Advisory Network which is a group of teenagers who “often trial new ideas, give feedback, take part in questionnaires.”¹⁶⁷

¹⁶⁵ O’Keeffe and Foster.

¹⁶⁶ O’Keeffe and Foster.

¹⁶⁷ O’Keeffe and Foster.

Analysis

Our Broken Planet: How We Got Here and Ways to Fix It and all related events follow the strategy of the museum. Declaring a planetary emergency, the Natural History Museum wants to research the effects of climate change and hopes to find solutions. By inviting the museum's scientists to contribute to the exhibition through "an open call [...] to choose one object from their collection that represents either an issue or a solution that we face in the planetary emergency", *Our Broken Planet* aims to show the importance of science and how it might offer a way out of this crisis, while also showing the personal dimension.¹⁶⁸ With *Our Broken Planet*, the Natural History Museum tried to find a balance between showing the urgency of the issue while not increasing the eco-anxiety of young people as the museum wants to create advocates for the planet that feel empowered to act.

To do so, the Natural History Museum developed an Advocate Engagement Model, which consists of three steps as Conor O'Keeffe explained: Inform, Inspire, and Empower.¹⁶⁹ In each step, the museum can play a specific role. First, the museum can inspire the visitors by capturing their attention through an interesting experience and making them feel connected with nature. Secondly, the museum can provide information to the visitors and help them explore new climate-related topics or deepen their knowledge, raising awareness of their impact on the planet. Thirdly, the museum can offer the visitors the knowledge and the tools needed in order to make a difference for the planet. Claire Forster elaborated that the museum does not want to decide for the visitor what is a good or bad action, as depending on the cultural or religious background, some actions, such as buying second-hand clothing, are not seen as feasible.¹⁷⁰ In an ideal situation, the visitors of *Our Broken Planet* or the participants of one of the related events, leave the exhibition or activity having experienced all three steps and thus feel encouraged to be an advocate for the planet.¹⁷¹

¹⁶⁸ O'Keeffe and Foster.

¹⁶⁹ O'Keeffe and Foster.

¹⁷⁰ O'Keeffe and Foster.

¹⁷¹ O'Keeffe and Foster.

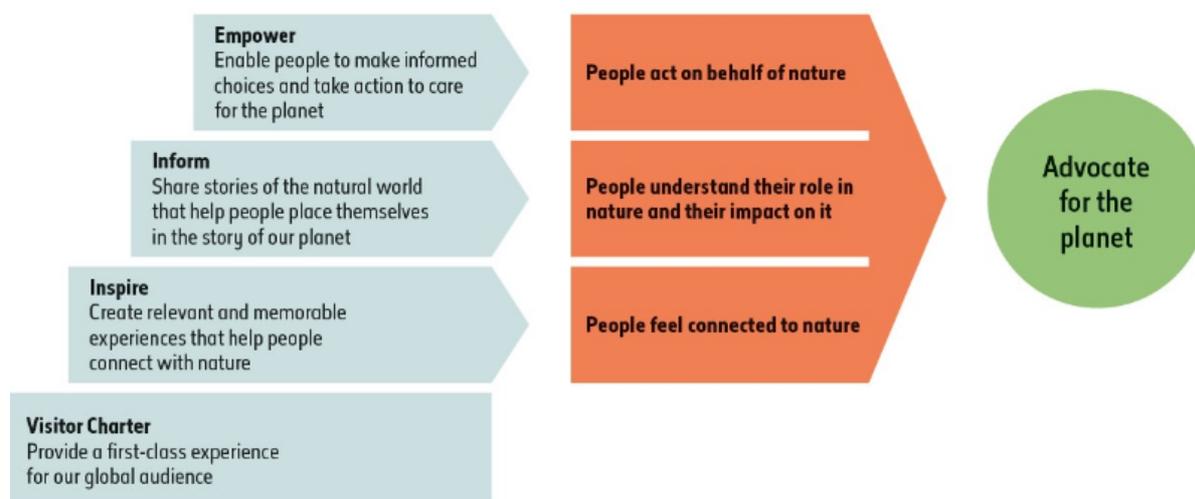


Figure 3: *Advocate Engagement Model*. Diagram. Natural History Museum. 2019. Source: email Conor O’Keeffe.

The strategy used by the Natural History Museum strongly aligns with the prerequisites of empowerment as defined by Schreiner, Henriksen, and Kirkeby Hansen, as the first two steps of the museum’s strategy – inspire and inform – correspond with the notions of motivation and knowledge.¹⁷² *Our Broken Planet* puts a lot of effort into making the exhibition not only interesting but also relevant for young people and children. By using interactive activities within the exhibition and by addressing themes that resonate with the target audience such as the activity in which the two gloves are compared with each other addressing the issue of fast fashion, the museum shows the relevance of these issues to young people. Furthermore, by offering possible solutions within the exhibition, *Our Broken Planet* shows the influence that the visitors can have by changing their behaviour. This is strengthened by the additions made by The Liminal Space that helps the visitors to reflect on their position within the climate crisis i.e., the mirror with “My species really can make a difference to our planet”. The relevancy of the climate crisis for young people is also to be found throughout the online events. By tackling themes that were suggested by the target audience, and by inviting young activists to speak, the events tie into the life of young people. By showing the relevance of the climate crisis to the visitors and the influence they can have, *Our Broken Planet* tries to present a more hopeful, yet realistic future.

¹⁷² Schreiner, Henriksen, and Kirkeby Hansen, ‘Climate Education’, 8.

The aim of the Natural History Museum is in this sense similar to the Klimaatmuseum that focuses on creating a more hopeful image of the future through imagination and creativity. Particularly striking in this respect is the wall at the end of the *Our Broken Planet* exhibition where visitors are asked to write down an action that they can do to fix the planet. By asking more person-directed questions, like “How do you think sustainably at work or school?” or “What sustainable thing do you do every day?”, the Natural History Museum tries to go into the personal influence that the visitors can have on the planet.¹⁷³ This solution-based and action-focused approach of the museum – building on Freire’s problem-posing model – is present both in the exhibition and in the online events. Within the exhibition the objects or stories of the scientists are paired up in duos, each time linking an issue to a possible solution. In this way, the museum tries to avoid the doom-and-gloom scenarios, and even more so provide the visitors with possible actions. This dualistic approach can also be found in the title of the exhibition: *Our Broken Planet: How We Got Here and Ways to Fix It*.¹⁷⁴

By focussing so strongly on possible solutions, the museum wants to fulfil the second step in their strategy: informing. Though the Natural History Museum still has a strong focus on scientific knowledge, the museum tries to move beyond this by on the one hand providing solutions both on a scientific and personal level, and on the other hand creating a more engaging environment, stimulating reflection. As Clare Matterson, the Executive Director of Engagement of the Natural History Museum explained during the conference “Museums and Galleries Responding to the Climate and Ecological Crisis”, the museum wants to avoid a more lecturing approach in which the museum takes up the role as a teacher and the visitors is on the receiving end.¹⁷⁵ Instead, the museum hopes to create a more reciprocal relationship with the visitors through dialogue with the science educators. Matterson stated that “it is important not just to inspire and motivate young people to make change and stand up for the planet, but also to help them express these views.”¹⁷⁶ On top of the in-exhibition engagement, the online series also forms a platform to enter into dialogue with prominent young voices,

¹⁷³ ‘The Liminal Space’.

¹⁷⁴ O’Keeffe and Foster, Interview Natural History Museum on Youth Engagement related to Our Broken Planet.

¹⁷⁵ Matterson, Museums and Galleries Responding to the Climate and Ecological Crisis - Day 1, hour 2:23:50-2:25:30.

¹⁷⁶ Matterson, ‘Empowering Young Voices on the Planetary Emergency | Executive Director of Engagement’.

not as much with the public itself but with young activists seeking to represent their interests. With this approach, the museum redefines the relationship between them and their visitors, towards a more equal one. Though the *Our Broken Planet* exhibition remains quite one-sided, the online series offers a platform for other voices of which the Natural History Museum is one of many. It is through these other voices that the museum offers the tools for change such as a workshop on upcycling clothes, bringing the museum one step closer to their goals of creating advocates for the planet. However, to have a deeper impact on the attitude but even more so the behaviour of people, it is important to influence their wider community, as the collective identity of a person can dictate their behaviour.¹⁷⁷

The museum as information source

The Natural History Museum declared a planetary emergency in 2020 and aims to empower young people in the hope they become advocates for the planet. Working towards a world in which both nature and humans thrive, the museum tries to motivate the participants by showing the relevancy of such a world and what impact they have on the climate through their personal actions and how to change this for the better. It is by providing information on both the problems and possible solutions that the museum tries to provide the “knowledge and the tools in order to make a difference that [the visitors] see fit for the planet.” Rather than telling the visitors what exact actions to undertake, they offer a broad range of possible actions suggested by both the museum’s scientists and external activists. The museum helps the visitors to reflect on these issues through interactive activities – both offered by the museum itself and by The Liminal Space – and conversations with science educators within the museum space as a means to stimulate dialogue. It is up to the visitors to use this knowledge and bring it into action on their own terms.

Nonetheless, the Natural History Museum is still very focused on knowledge. Though it is not limited to the scientific understanding of climate issues, the activities in the exhibition and online are centred around providing information. The interactive tools help the visitors to process this information but offer little room for personal creativity and input by the young visitors. Reiterating the idea of Hayden and colleagues that empowerment is something that

¹⁷⁷ Allen and Crowley, ‘Moving beyond Scientific Knowledge’, 302.

needs practice, the Nature History Museum provide little opportunity to do so.¹⁷⁸ In comparison to the other three case studies, *Our Broken Planet* puts little effort into creating a safe environment where their visitors can practise their empowerment; the young participants have the opportunity to voice their own understandings to the science educators, but there is no space for them to express their opinions, concerns and emotions. Even though the Natural History Museum recognises these feelings in the online panel on eco-anxiety, the young public had little chance to share these emotions themselves during the event. More so than listening to the feedback of young people in developing the programming of *Our Broken Planet*, the young visitors should be given the opportunity to explore their emotions and opinions in a safe environment where they are supported to share their ideas.

¹⁷⁸ Hayden et al., 'Pedagogies of Empowerment in the Face of Climate Change Uncertainty', 120.

... Safe Space: Framer Framed

Framer Framed describes itself as “a platform for contemporary art, visual culture, and critical theory & practice.”¹⁷⁹ In addition to the exhibitions it hosts several times a year, the museum has an extensive public program with which it aims “to shed light on the topics concerned, and provide a wide range of perspectives.”¹⁸⁰ Focussing on the exchange of knowledge and emphasizing dialogue, Framer Framed wants to reconsider to role of art institutions in a society that is shaped by globalisation, offering a platform for “the plurality of voices”.¹⁸¹



Figure 4: Hamelink, Ruben. *Court for Intergenerational Climate Crimes*. Photograph. Framer Framed. 2021. Source: <https://framerframed.nl/en/exposities/court-for-intergenerational-climate-crimes/>.

In the autumn of 2021, Framer Framed organised an exhibition called *Court for Intergenerational Climate Crimes (CICC)*, which ran until the start of 2022. The exhibition was held in the main exhibition space of Framer Framed, filling the entire room with only one installation. The space resembled a self-made tribunal in which the visitors and audience were accompanied by animals and plants that went extinct due to human activity. The centrepiece of the exhibition was not the room itself but a four-day trial in which hearings were held against Unilever, ING, Airbus and the Dutch State. This tribunal not only put these

¹⁷⁹ ‘About Framer Framed’.

¹⁸⁰ ‘About Framer Framed’.

¹⁸¹ ‘About Framer Framed’.

corporations and state on trial but also challenged the current legal system as a whole. The visitor was urged to rethink the framework in how they perceive the current climate crisis.¹⁸² Aside from these four days, the exhibition was the setting for many other events, including presentations, panel discussions, book presentations, etc. The strength of the exhibition lay in its public programming that took place within the exhibition.

Next to the public programming, which was mainly aimed at adults, the education team created workshops for children and young people inspired by the *CICC* exhibition. Firstly, the activity *De Wereld van de Natuur*, which translates to ‘*The World of Nature*’, allowed young children of the age of five and older explore nature and discover their own connection with nature.¹⁸³ This project is the result of a cooperation between Framer Framed and Toeval Gezocht, an organisation that works with the Reggio Emilia approach creating engaging environments for children to explore and learn in.¹⁸⁴ The children are free to wander around and use all the accessible material to them.¹⁸⁵ The accompanying adults do not steer the children in any way but can help their thought process by asking questions and through prompts, all without any judgement.¹⁸⁶



Figure 5: *Kinderatelier Framer Framed*. Photograph. Toeval Gezocht. 2021, 5 November. Source: https://www.toevalgezocht.nl/volg-de-sporen#kinderatelier-framer-framed_i.

¹⁸² ‘Exhibition: Court for Intergenerational Climate Crimes’.

¹⁸³ ‘Kinderatelier: De Wereld van de Natuur’.

¹⁸⁴ ‘Over Ons - Inspiratiebronnen’.

¹⁸⁵ ‘Over Ons - Visie En Werkwijze’.

¹⁸⁶ Bawits, Interview Framer Framed.

A second activity inspired by the *Court for Intergenerational Climate Crimes* is a workshop that fits within a bigger project of Framer Framed in cooperation with ELANCE Academy.¹⁸⁷ ELANCE is an organisation that aims to empower young girls through workshops and by pairing younger girls with older girls to learn from each other.¹⁸⁸ Within this cooperation, Framer Framed organises workshops that focus on empowerment and the strengths of these girls that often have a complex situation at home. For this specific activity, the education team of Framer Framed asked the three interns from ArtEZ University of the Arts – Kirsten Hondorp, Gijs Faassen, and Grace Erskine – to create a workshop inspired by the *CICC* exhibition for these girls, while building on the intern's multidisciplinary background as students of the ArtEZ, specialised in visual art, dance, and theatre.

The workshop started with an audio fragment created by the three ArtEZ interns that stimulated the participating girls to look around the exhibition space and become familiar with its contents. This exercise was followed by smaller game-like activities to create a good and safe group atmosphere as most of these girls had never met before. The participants were asked to walk around the exhibition space and when they met someone tell them their name, favourite colour and animals, etc. Apart from getting to know each other, this game sought to lower the threshold for communication, inciting the participants to be comfortable with each other and the space they are in. In the next game, the girls were paired up and had to guide each other blindly through the space. Again, this exercise was about trust and feeling comfortable within the group and drawing boundaries. After spending this time within the exhibition, the girls were asked to do a free writing exercise, for which the participants were asked to write down everything that crossed their minds after listening to the audio fragment and walking through the exhibition. The material produced by each participant reveals their uninfluenced opinions and understandings of the *CICC* exhibition. The result of this exercise would be used in a later part of the workshop. After the free writing activity, the ArtEZ students gave a short explanation of the exhibition, and the participants could ask all their questions.¹⁸⁹

¹⁸⁷ 'Framer Framed x ELANCE Coachingsacademie Voor Meiden En Jonge Vrouwen'.

¹⁸⁸ 'ELANCE Academy'.

¹⁸⁹ Bawits, Interview Framer Framed.

The last phase of the workshop was more hands-on. The participants each received a piece of paper in various shapes that they would use during their speed date-like activity where they would *date* different drawing materials, such as paint, charcoal, pencils, but also material for collages and more. As inspiration for the drawing, the participants had to choose four words from their free writing exercise that were important to them. After the participants were given the time to use every material, it was revealed that the pieces of paper all fit together and thus formed a bigger whole. This revelation was used to discuss the artworks of the participants and the connection between them. Noa Bawits, a staff member of the education team, explained that this moment of reflection is an important part of all the activities and workshop – a point I pick up on below.¹⁹⁰



Figure 6: Shared artwork of ELANCE participants, made during the ArteZ workshop. Photograph. Framer Framed. 2021.

Source: <https://framerframed.nl/en/dossier/framer-framed-x-elance/>.

¹⁹⁰ Bawits.

As Framer Framed is an institute that focuses on contemporary art and has no own collection, the exhibitions are diverse and tackle different issues outside of the climate crisis. In contrast to the other three case studies, Framer Framed's mission statement does not mention the climate crisis specifically.¹⁹¹ Nonetheless, the museum exerts itself in addressing the changing climate and its consequences as a response to the urgency of this issue; hosting several climate-related events such as *Crisis Imaginaries* and *#ActivismArchive*.¹⁹² However, when analysing the activities of Framer Framed's education team in response to the climate, it becomes apparent that only two activities were ever created to this end. Both workshops were inspired by the *Court for intergenerational Climate Crimes* and were held concurrently with the scheduled dates of this overarching exhibition. As the education team usually tries to align their activities thematically, based upon the running exhibition, their number of climate-related activities was limited due to the time restraints of the *CICC* exhibition. The two activities discussed in this thesis are, thus, the two activities organised during and inspired by the *Court for Intergenerational Climate Crimes*.

Analysis

The aim of the activities of Framer Framed's education team is not uniquely linked to climate change, as the themes of the workshops change through time. However, a reoccurring goal they focus on is the empowerment of the participants and helping them develop their own opinions and narratives. Framer Framed does not want to instigate direct action, but rather encourage those whose voices are often forgotten. More specifically, the ELANCE workshop aims at empowering the participating girls, while also focusing on the concept of connection, at its diverse understandings: a connection between the participants, the individual and society, nature and humanity, the past, present and future, etc. By demonstrating that the climate crisis is an intergenerational issue, this workshop showed the participants that they are not alone in this crisis and that as overwhelming as it might seem, individuals cannot solve this issue on their own. Framer Framed tries to alleviate the despair that many young people experience and struggle with due to the magnitude of this crisis and their feeling of helplessness.¹⁹³ Framer Framed does so by reminding the young girls that they are part of a

¹⁹¹ 'About Framer Framed'.

¹⁹² 'Crisis Imaginaries'.

¹⁹³ Hickman et al., 'Young People's Voices on Climate Anxiety, Government Betrayal and Moral Injury', 3.

bigger whole that can be influenced by them, either later as adults or now, while not having to carry all the burden. Also, within the exhibition, there is a strong emphasis on the bigger whole. Noa Bawits explained that the *Court for Intergenerational Climate Crimes* condemns the structures developed by humanity, and in doing so relieved the individual of the pressure.¹⁹⁴ This approach towards the climate crisis is reflected in the activity.

The empowerment of the participants does not refer to direct change in the behaviour of the participants but rather aims at creating a feeling of connection and helping young people question the systems and structures they are a part of while defining what is important to them and forming their own opinion. Through art and creativity, Framer Framed wants to help those who are not heard to find their voice and listens to them.¹⁹⁵ When circling back to the prerequisites, it becomes clear that Framer Framed focuses on the motivational side of empowerment, especially the aspect of personal importance. The four words the participants selected from their free writing activity about the *CICC* exhibition, linked their personal values to the more general climate crisis. This exercise showed how the changing climate is an issue that is deeply intertwined with our way of living, our societal structure and our values, as is in line with the concept of the *CICC* exhibition. Through this activity, the participants became more aware of the personal relevance the climate has to them.

Furthermore, both the activities depart from the children's experience and have no concrete goal, apart from letting the children explore their position within the bigger whole. In *De Wereld van de Natuur*, the children explored the space and everything within, while in the *CICC* workshop this exploration is more figurative as they dive into the idea of connection and personal values. In both manners, the children develop their own understanding of the world and the nature within. As the participants are free to establish and express their own opinions and narratives without any kind of judgement by the museum, the children's and young people's ideas are validated. By starting from the personal experiences of the participants without downplaying them, Framer Framed acknowledges these experiences of young people and digs deeper into their understanding of the climate crisis; by doing so Framer Framed

¹⁹⁴ Bawits, Interview Framer Framed.

¹⁹⁵ Bawits.

listens to young people's opinions on the issue and encourages them to share their feelings. This approach ties into the *CICC* exhibition as the trials were built on the testimonies of victims, often less represented in Dutch society.¹⁹⁶ Nevertheless, the acknowledgement of personal experiences does not inevitably lead to the workshop participants feeling influential. Recognition and acceptance are an important part of empowerment, but *Framer Framed* can only do as much as they have no further outreach program and have limited connections to the various communities the participants are part of. When wanting to obtain a long-lasting feeling of empowerment, it is important to increase the collective efficacy of the community, since the influence of these communities cannot be overlooked. Without a community supporting their ideas, people can easily feel disempowered as they feel like they lack a wider backing and thus not "enough other people will take the same necessary steps."¹⁹⁷

Noa Bawits explained that *Framer Framed* has no intention of portraying themselves as a neutral institution, instead of presenting the debate to the visitors the museum actively participates within the debates. With the *CICC* exhibition, the museum took a clear stance on what their attitude is towards the climate crisis. However, the educational department follows a slightly different approach in their workshops as their focus lies on the self-empowerment of participants and forming their own opinions. They avoid steering the participants in a certain direction and, thus, do not take a stance in their activities but rather let young people contribute their own interpretations to each artwork. Bawits states that to do so, they try to stick more to a factual approach. Nonetheless, the goal remains to stimulate the participant's self-confidence, rather than to spread knowledge.¹⁹⁸ This can be seen in the build-up of the workshop; the exhibition forms a source of inspiration and is used as a starting point to broaden the perception of the participants but later on the exhibition is left aside. Noa Bawits emphasized in the interview that they do not expect the participants to leave with knowledge about the artists and their work but hope that the participants leave feeling empowered.

¹⁹⁶ 'Public Hearings: Court for Intergenerational Climate Crimes'.

¹⁹⁷ Allen and Crowley, 'Moving beyond Scientific Knowledge', 308.

¹⁹⁸ Bawits, Interview *Framer Framed*.

Framer Framed adheres great importance to self-exploration – rather than knowledge – hence, the position of the ArtEZ interns as hosts is fluid and undefined. The hosts cannot be seen as teachers as their opinions are just as important as those of the participants. Both are learning together and (re)forming their views, just as the student-teacher of Freire. Again, Noa Bawits elaborated by telling how there was no clear division between the hosting interns and the participants, partially due to their age. The participants made the museum space their own, showing their equality with this safe space, something that is not self-explanatory as museums are often intimidating spaces.¹⁹⁹ Activities such as the *CICC* workshop help Framer Framed to deconstruct the barriers making people feel unsafe in the museum, slowly creating a space for everyone, even for those who feel less represented within society.

For Framer Framed dialogue and reflection are inseparable, since these methods are used to have an open discussion with the participants. In both activities, reflection through dialogue forms a key aspect, with the museum and the participants as equal conversation partners. Within the children's atelier, the adults help the children explore by asking questions and sparking a reflective thought process. An example given by Bawits is the conversation she had with a child that used fences to protect nature. Instead of suggesting to the child that this method might be woeful for the animals, she would ask questions like "What do they do in these cages?", "Who makes the fence?" but without any form of judgement.²⁰⁰ It is through this conversation that the children can form a well-considered opinion. Also, in the *CICC* workshop, the young girls enter into a dialogue with each other and the workshop hosts. With the puzzle of their artworks as a prompt, the participants were asked: "What inspired you? How do you feel about the idea that everything is connected? How do you recognise this in the real world? How does this make you feel?"²⁰¹ Noa Bawits explained that this moment of reflection is something they do in almost every Framer Framed activity for children and young people. Rather than having a feedback session at the end asking how they enjoyed the activity, they go deeper into what they experienced and how this affected them.

¹⁹⁹ Bawits.

²⁰⁰ Bawits.

²⁰¹ Bawits.

It has become clear that Framer Framed has a strong focus on reflection and motivation. This approach fits into the idea of Hayden and colleagues that young people need to practise their empowerment in a safe space. They argue that “if students can feel success in the classroom, or similar learning environment, then they are more likely to carry through on learning and actions in their lives outside of school.”²⁰² Even though Framer Framed offers no direct action or knowledge, they offer a safe space for the young people to practise their empowerment. Nonetheless, in order to obtain deeper change, Framer Framed’s approach might not suffice. The necessity for knowledge on how to create the needed change is an important prerequisite of empowerment. This knowledge does not necessarily refer to scientific knowledge as explained, but also possible actions that young people can implement within daily life and even what “channels of influence” they can turn to.²⁰³

The museum as safe space

The focus of Framer Framed within their activities is not climate change, but rather self-exploration and empowerment. This approach ties into the ideas that Framer Framed stands for: offering a platform where all voices feel safe to speak. This explains why the educational team of Framer Framed has a strong focus on creating a safe space for participants to explore and discuss their opinions and understandings of various issues, including the climate crisis. However, as a result of this approach, the themes of their activities – in this case, the climate emergency – often fade into the background. Various game-like exercises were held to enhance the trust between the participants and create a good group atmosphere. Also, the limited age difference between the participants and the hosts of the workshop helped in creating a safe space wherein everyone is equal. Through making art, the participants were able to express themselves, and their works can then later be used as prompts in the reflection. Rather than steering the participants in a certain direction, the opinions are welcomed as there is no right or wrong when it comes to personal experience. Though this forms an important aspect of climate action, it will not lead to direct action by the participants. Lacking praxis, the combination of reflection with action, Framer Framed sticks to motivating the participants and encouraging reflection. By emphasizing the connections

²⁰² Hayden et al., ‘Pedagogies of Empowerment in the Face of Climate Change Uncertainty’, 120–21.

²⁰³ Schreiner, Henriksen, and Kirkeby Hansen, ‘Climate Education’, 8.

that exist, and how the individual is part of the bigger whole that needs more structural change, the museum tries to diminish the discouraging burden that young people feel. Nonetheless, as *Framer Framed* provides little information and focuses predominantly on the reflective side of praxis, the obtained change will be limited.

... Inspiration: The Klimaatmuseum

The Klimaatmuseum is a young museum, founded in 2018 by Laura van Rutten. Different from the two previous case studies of the Natural History Museum and Framer Framed, this museum was specifically founded with a solemn focus on the climate crisis. As the museum works without a fixed exhibition space, it has a project-based approach and hosts pop-up exhibitions and workshops in various locations.²⁰⁴ Building on the idea that in order to create a sustainable world it is first necessary to imagine one, the museum has a strong focus on art that can stimulate the imagination within people and inspire creativity. According to the Klimaatmuseum, artists can help make the climate crisis more comprehensible and even provide new perspectives. As the museum argues, through their work artists create space for reimagining a radically different sustainable world, which it is up to museums to help facilitate. Furthermore, museums have the responsibility to support a more inclusive, just and transparent approach.²⁰⁵

By the end of 2021, the museum had organised six different projects, all aimed at a general public including children and young people.²⁰⁶ These projects included pop-up exhibitions, workshops with artists, and additions to existing exhibitions.²⁰⁷ One project *Klimaatmakers* – which translates to ‘*Climate Makers*’ – is specifically focussed on the participation of children. For this project, up to 500 children were asked to come up with possible solutions that would save the planet, with no plan too crazy.²⁰⁸ Through a game developed by the Klimaatmuseum, the children started off by exploring (a part of) the problem. The issue that the children would address in their invention was decided by drawing a card with a theme such as “water, waste, nature, [and] transport”.²⁰⁹ Following this, the children explored the selected topic and came up with a possible solution. These ideas were then turned into a “creative climate invention”.²¹⁰ The gathering of answers and inventions was the first of three phases in the *Klimaatmakers* project. In the second phase, three artists – Karl Karlas, Maarten Slof, and Rob

²⁰⁴ ‘Over Ons’.

²⁰⁵ ‘Jaarverslag 2020: Het Klimaatverslag - Een Onvergetelijke Zomer’, 13.

²⁰⁶ van Rutten, Interview Klimaatmuseum.

²⁰⁷ ‘Onze Projecten’.

²⁰⁸ ‘Klimaatmakers’.

²⁰⁹ van Rutten, Interview Klimaatmuseum.

²¹⁰ van Rutten.

Voerman – read through the answers and selected one invention they especially liked to recreate. As part of *Festival 2030* in Leiden, the artists spent a day constructing the inventions in a greenhouse while visitors could come and watch their progress.²¹¹ The third and final part of the project was an auction of the three artworks. A jury consisting of the young inventors decided on the best offer. However, “best” in this case did not refer to the financial resources of the bidding organisations but indicated the most extensive commitment of the bidders to engage with the inventions. The Klimaatmuseum states that “the climate inventions created by children also benefit children (and next generations) through art and commitments.”²¹² By auctioning these three artworks, the Klimaatmuseum stimulates action, not only by the individuals answering the questions or visiting the pop-up exhibition but also by larger bodies such as educational institutions or companies, who are entrusted with their promised commitments.



Figure 7: Judges at the Klimaatmakers auction. Photograph. Het Klimaatmuseum. 2021, 22 September. Source: <https://www.hetklimaatmuseum.nl/veiling-klimaatmakers/>.

²¹¹ ‘Klimaatmakers’.

²¹² ‘Veiling Klimaatmakers’. Own translation.

The *Klimaatmakers* project did not end with the final auction, as the Klimaatmuseum still offers *Klimaatmakers pakketten* or packages. These contain a game for participants, as described above, to help invent new solutions for the climate crisis and can be formatted to the needs of those who order the game, including a lecture prior to the game on the changing climate, a workshop with an artist, or with an auction similar to the original event.²¹³ The jury is always made up of the creators of the auctioned inventions, and it is up to them to decide on the best offer/commitment. Though accessible and fun for adults, the project is predominantly aimed at children above the age of eight, resulting in a young jury. Although climate change is an issue involving everyone, Laura van Rutten mentioned that having a young jury is more interesting “as children are the future, and climate change will presumably impact them most.”²¹⁴ The focal points of the *Klimaatmakers pakketten* are, as stated on the website: climate, art and social.²¹⁵ Through these activities, the museum wants to raise awareness and provide insight in an accessible and inspiring manner, using art to stimulate creativity, imagination and show diverging perspectives. On top of this, the museum tries to demonstrate the social dimension of the climate crisis by connecting and strengthening various groups and stakeholders, including young people.²¹⁶

As the *Klimaatmakers* project has a strong focus on children and young people, this activity is the most significant within this research, nonetheless, it is not the only element that I will focus on. For instance, an important and reoccurring aspect within the exhibitions and projects of the Klimaatmuseum are the questions posed to the visitors and participants. The questions all refer to future practices within a sustainable world. Depending on the theme of the pop-up exhibition or the project these questions might vary, but the general direction of the questions is daily life: What do people eat? What do they wear? How do they travel? What energy source do they use? etc. Such questions stimulate reflection from the visitors on their daily life.

²¹³ ‘Klimaatmakers Pakketten’.

²¹⁴ van Rutten, Interview Klimaatmuseum. Own translation.

²¹⁵ ‘Klimaatmakers Pakketten’.

²¹⁶ ‘Klimaatmakers Pakketten’.



Figure 8: Visitors Answers to “how do we treat nature?” and “what do we eat”. Photograph. Het Klimaatmuseum. 2020, 18 January. Source: <https://www.hetklimaatmuseum.nl/doemee/>.

Analysis

When asked, Laura van Rutten – the founder and head of the Klimaatmuseum – explained that the aim of the museum and its activities is “to raise awareness through imagination and creativity, so subsequently the visitors can potentially come up with their own ideas to make their lives more sustainable.”²¹⁷ She emphasized that the Klimaatmuseum is not activist, “never undertaking action in a direct sense” on which she elaborated that they “will not address people on their consumer behaviour”.²¹⁸ The museum avoids guiding visitors in a fixed direction, but rather “offers a platform for artists”, taking a more facilitating role.²¹⁹ Even so, the Klimaatmuseum still aims to empower people. The climate art is meant to stimulate the visitors to imagine a future sustainable world, as the ideology of the Klimaatmuseum builds on the idea that in order to create a sustainable world, it is necessary to imagine one first.²²⁰ This rests on the belief that the necessary solutions will be found through a more hopeful outlook and creativity, and seems to tie into the notion – as championed by authors such as Amitav Ghosh and Fiona Cameron – that the current climate crisis says more about the world today built on capitalist and colonialist structures rather than

²¹⁷ van Rutten, Interview Klimaatmuseum. Own translation.

²¹⁸ van Rutten. Own translation.

²¹⁹ van Rutten. Own translation.

²²⁰ van Rutten.

the future.^{221, 222} As a result of this creative thinking, the Klimaatmuseum hopes to spread awareness and help young people experience ownership over their future and take this with them throughout their daily lives, even influencing their close circles. Although children and young people often still depend on the choices of their parents, the Klimaatmuseum hopes that by experiencing “ownership” over the climate at a young age, they will reap the benefits later in life by taking responsibility for the planet.²²³ Rather than expecting direct action by the visitors, the museum impacts the behaviour of the visitors indirectly through inspiration and reflection. Empowerment according to the Klimaatmuseum lies thus on the one hand in creativity and imagination, and on the other hand in ownership of the visitors over their future, wanting to take action into their own hands.

When applying the definition of empowerment used in this thesis, it becomes clear that the Klimaatmuseum has a strong focus on the motivational side of empowerment. By making participants reflect on a possible sustainable future, the museum helps them to imagine a hopeful future and therefore feel encouraged to act. One way in which the museum motivates the visitors is by posing questions about a sustainable future that the visitors actively engage with and think of a world they would like to live in and make tangible. This fits the first prerequisite necessary to empower visitors: “have hope and visions for the future” as the Klimaatmuseum focusses on all ages, young people are included in this task.²²⁴ Furthermore, by looking at daily practices, the visitors can easily relate to the issue of the changing climate and think about the influence individuals might have. The questions relate to day-to-day activities recognisable for every person: food, transport, clothing, etc. More than making the climate crisis relatable, these questions and the responses show the small and easy-to-implement changes the visitors can make in their own everyday life. This approach is similar to the Natural History Museum’s wall of questions. Nonetheless, the approaches of the two museums diverge; while the Klimaatmuseum asks more general questions about the future, trying to stimulate the imagination of the visitor, the Natural History Museum asks action-minded questions, aiming to create direct change. Compared to the Natural History Museum,

²²¹ Ghosh, ‘Amitav Ghosh: Where Is the Fiction about Climate Change?’

²²² Cameron, Hodge, and Salazar, ‘Representing Climate Change in Museum Space and Places’, 11.

²²³ van Rutten, Interview Klimaatmuseum.

²²⁴ Schreiner, Henriksen, and Kirkeby Hansen, ‘Climate Education’, 8.

the Klimaatmuseum has a more open approach. Through this approach, the Klimaatmuseum meets two other motivational prerequisites for climate empowerment: the feeling of personal influence on the future and the personal relevance to act upon it.²²⁵

The Klimaatmuseum focuses less on informing participants than on stimulating personal reflection, contrary to more classical museums which tend to provide scientific information as is the case in the Natural History Museum. When circling back to the definition of empowerment – where knowledge is the complementary characteristic to motivation – we can see that knowledge might entail more than providing insight into the science behind climate change. The Klimaatmuseum does not focus as much on science education, as this is not their aim. In addition, the museum only partially provides “possible adequate actions in terms of personal lifestyle, technical solutions and political measures”, as they do not want to intervene directly.²²⁶ Rather, the museum encourages the visitor to reflect on these aspects, which can help in re-evaluating their personal attitude towards their role within the climate crisis. Instead of advocating for direct action and thus behavioural change, the Klimaatmuseum wants to support and help visitors – including young people – in reconsidering their attitudes, and make them aware of their own impact. When asked about the empowerment of young people through their projects, van Rutten explained that they hope to create awareness and encourage reflection on possible solutions, so young people can have a more influential impact on their surroundings. By making them reflect from a young age onwards and helping them see a more creative and bright future, young people can not only influence their family and friends but also impact their own future positively.²²⁷

Next to motivation and reflection, collective efficacy plays an important role in empowerment. Laura van Rutten explained that museums can be disheartening places for some people, hence the Klimaatmuseum consciously moves towards people to make it more accessible to everyone as the climate is an issue that impacts everyone.²²⁸ This forms a good start to creating a bridge to local communities, however, in order to involve a community a

²²⁵ Schreiner, Henriksen, and Kirkeby Hansen, 8.

²²⁶ Schreiner, Henriksen, and Kirkeby Hansen, 8.

²²⁷ van Rutten, Interview Klimaatmuseum.

²²⁸ van Rutten.

more bottom-up approach is needed that caters to the needs of that community. When wanting to empower a community into acting on climate change, they must perceive the relevance to their specific community and life.

The museum implicitly aligns with Paulo Freire's pedagogical approach: First of all, the closest link between the Klimaatmuseum and Freire's work, is the problem-based learning model, as can be recognised in the *Klimaatmakers*-game. As described by Freire, the museum offers the participants – or students – a problem related to climate change, which they are then asked to critically analyse in order to invent their own solutions to the problem. The problem-based learning model is quite clear in this project, but also through the questions asked at the temporary exhibitions, where visitors are confronted with a problem through art, and are then asked to reflect on it and write down a possible solution or a hoped outcome. The approach of the museum takes to activities such as the *Klimaatmakers* and the questions asked at their pop-up exhibitions seek to instigate dialogue between the museum and their visitors, although in an indirect manner. The museum shares its views and information through exhibitions and art, and by posing these questions the visitor has the chance to respond with their own interpretation. However, the dialogue is limited to this one interaction and counts on the goodwill of the visitors to discuss the issue further at home. The museum hopes to support the dialogues that are taking place at the dinner table between the children and their families. Laura van Rutten highlights the importance of dialogue, both in the museum and at home, as part of the process leading to awareness and action. She illustrates this with an example of parents becoming more aware of their ecological impact as a result of their child asking: "What are you doing to make the world a little bit better?"²²⁹

Looking further at the role of the museum within their projects and linking them to Freire's role of student-teacher, it can be argued that the Klimaatmuseum does not force a certain vision on the visitors as it leaves the art open for interpretation. The visitor imagines their own future, prompted by the questions. In this sense, the museum – or teacher – positions itself on the same level as the visitors, as it tries to think together with the visitors. The museum does not take up an authoritarian role but leaves space for the "student". For

²²⁹ van Rutten. Own translation.

example, during the auction – the last phase of the *Klimaatmakers* – the museum gives agency to the young inventors as they decide on the organisation that offered the best commitment. It gives the participating young people a powerful position as a sign of trust in their competence and confirms the influence they can have. The Klimaatmuseum does not separate adults and young people and lets their voices be heard. Furthermore, it does not lay the responsibility to act with the children as the bidders are the ones to make the commitments. Having said this, it is not clear if the children can check if the bidders actually follow up on those commitments.



Figure 9: Visitors Answers to “What energy source do we use?” and “which cloths do we wear?”. Photograph. Het Klimaatmuseum. 2020, 18 January. Source: <https://www.hetklimaatmuseum.nl/doemee/>.

When looking at the Klimaatmuseum through the dual concept of praxis, the reflective side is straightforward as the questions, the artworks and the problem-based learning are there to help the visitors reflect on the future. The active side of praxis can also be seen in the questions posed by the museum as some of the visitors also wrote down the actions they must take to get there. Some of the answers include vegetarianism or veganism, second-hand shopping, no food waste, etc. which are direct actions that visitors can take.²³⁰ Though touching upon structural issues, the answers remain small-scale and lay the responsibility on the visitor and their consumption, lacking insights related to deep problematic structures and

²³⁰ ‘Doe Mee’.

the worldwide impact of a changing climate. Nevertheless, it is through these questions that visitors are stimulated to reflect on possible actions and changes, combining the distant future with hands-on actions.

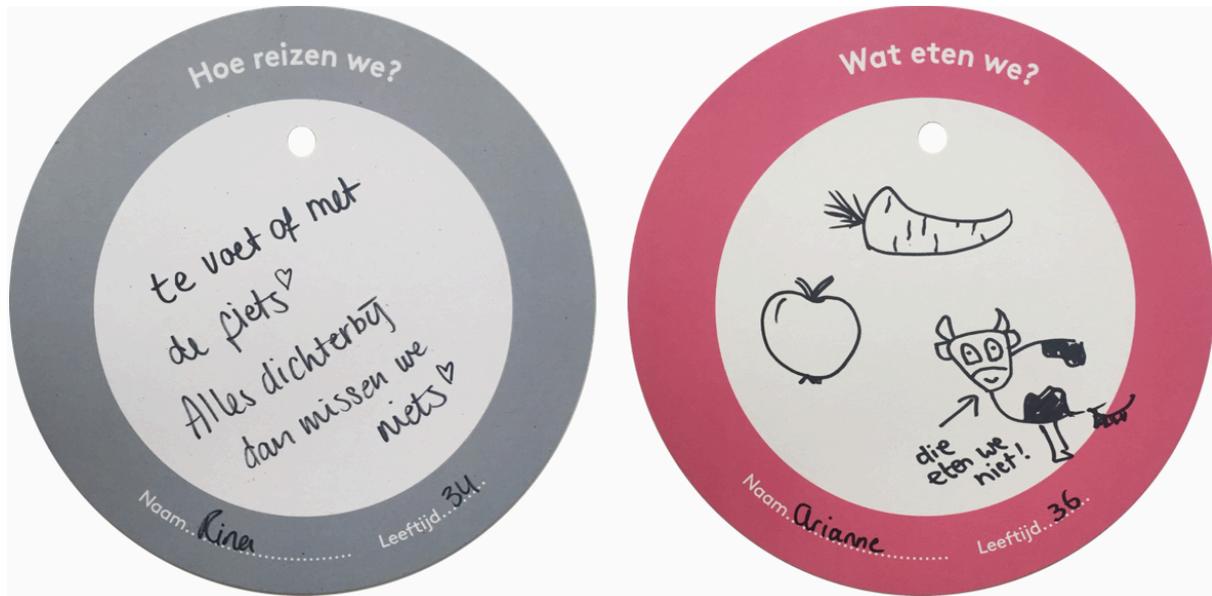


Figure 10: Visitors Answers to “how do we travel?” and “what do we eat”. Photograph. Het Klimaatmuseum. 2020, 18 January. Source: <https://www.hetklimaatmuseum.nl/doemee/>.

The museum’s conscious approach to avoid direct action can hold people back in making changes, both in their personal lives and structurally. As has been explained above, both empowerment and deep behavioural change require an activating method. Research has shown that changes in attitude and motivation are not sufficient to instigate behavioural change; knowledge on how to act is also needed.^{231,232} Likewise, Freire’s pedagogy mentions that reflection should be accompanied by action, as is it ineffective without. Due to the chosen approach of the museum, this activation seems to be missing. Though the Klimaatmuseum stimulates the visitors to envision a sustainable future and motivates them to think differently, how exactly to achieve that future is missing. Through the art in pop-up exhibitions, the Klimaatmuseum offers possible directions that the visitors can consider to achieve their imagined future. The questions stimulate the visitors to think of what daily practices are part of that specific future, but how to realise that future is entirely up to the visitors. Afterwards, the visitors are left on their own to find out how to get there. However,

²³¹ Allen and Crowley, ‘Moving beyond Scientific Knowledge’, 301.

²³² Schreiner, Henriksen, and Kirkeby Hansen, ‘Climate Education’, 8.

in the current attention economy, the logical step to delve deeper into the issues addressed in the pop-up exhibitions or activities is not evident. With different organisations and companies vying for the attention of those visitors, the Klimaatmuseum cannot assume that the visitors will afterwards make time to delve into the issue on their own.²³³ However, offering direct leads for future research or concrete tips for action can overcome disengagement and provide a starting point for the knowledge that is a prerequisite to empowerment. An example of the Klimaatmuseum providing this direct information and more hands-on action is through workshops by the artists offered during their pop-up exhibitions, of which the most concrete example is an edible plants tour during their event on the island Pampus. Through this activity, the Klimaatmuseum offers the participants a pragmatic way to reduce their emissions and become more sustainable in their food consumption.

The museum as inspiration

The Klimaatmuseum aims to create a hopeful outlook toward the future to bring about a more sustainable planet; however, there is still a long way to go in which young people can play a role. The strength of the Klimaatmuseum lies in motivating young people to think about the future and study current issues in order to move forward to that future. With motivation as one of the prerequisites of empowerment and the chances that are given to young people to be heard as equals, the Klimaatmuseum helps young people to feel empowered. By giving the children a voice as inventors, they can hold organisations accountable, a role they do not experience within society as they feel unheard.²³⁴ Even more, by hosting the auction, the Klimaatmuseum not only provides the opportunity for the participants to practise their empowerment but also helps the young people to feel successful and motivated to take further action.²³⁵ Nonetheless, there is a need for more knowledge on how they can act and help in mitigating the climate crisis as the path towards the envisioned future remains vague. As Freire's concept of 'praxis' states, there needs to be a balance between reflection and action. Though visitors are challenged to rethink their values, a change in behaviour will not automatically follow. Further, a more community-based program can help the

²³³ Celis Bueno, *The Attention Economy*, 1–2.

²³⁴ Hickman et al., 'Young People's Voices on Climate Anxiety, Government Betrayal and Moral Injury', 3.

²³⁵ Hayden et al., 'Pedagogies of Empowerment in the Face of Climate Change Uncertainty', 120–21.

Klimaatmuseum leave a deeper impact that can lead to more change. Despite these reservations, the projects created by the Klimaatmuseum can be a great addition to informative exhibitions, as they help the visitors to process the information in a more hopeful and creative manner and connect the abstract with the personal.

... Activation: The Climate Museum UK

The Climate Museum UK was founded in 2018 by Bridget McKenzie. As McKenzie wrote, “Naming the organisation was a declaration of emergency, a call for support and a pledge of service in response to the urgency of the Earth crisis.”²³⁶ The Climate Museum UK is, similar to the Klimaatmuseum, a museum without a fixed location that covers the current climate crisis by hosting pop-up exhibitions, workshops, activities, etc. – referred to by the Climate Museum UK as “activations”. Nonetheless, there are differences in the approach of the two museums. A major difference lies in the way they profile themselves. The Climate Museum UK does not shy away from referring to itself as an eco-activist museum, while the Klimaatmuseum is more tentative about using the terms action or activism.²³⁷ The Climate Museum UK describes themselves on their website as “a team of creative people based in the UK, passionate about the planet, we produce and gather art, objects, ideas, games and books, and then use these to activate people. These activations help people to play, make, think and talk about the Earth crisis and to open their imaginations to possible futures.”²³⁸

Bridget McKenzie explained that the Climate Museum UK has two separate aims: “One is to develop the capacity of the sector – the museums and cultural sector – to engage people more effectively in the earth crisis, and the other aim or role is to directly engage with the public and give them more confidence, tools and agency to think about and to face the earth crisis, and express their feelings and take action.”²³⁹ McKenzie explained that when deciding what the Climate Museum UK would focus on, they were approached by museums and other clients asking for help in addressing climate issues with children and young people, both in familial and school contexts. She also explained that the public activations are “more varied because they are developed much more by the individual practitioners.”²⁴⁰ During the interview, Bridget McKenzie highlighted several activations with children and young people created specifically to cater to the needs of these audiences. It is this last aim of the museum

²³⁶ McKenzie, ‘Climate Museums UK’.

²³⁷ McKenzie, Interview Climate Museum UK on Youth Engagement.

²³⁸ ‘About’.

²³⁹ McKenzie, Interview Climate Museum UK on Youth Engagement.

²⁴⁰ McKenzie.

and the corresponding activities and workshops that will be discussed and analysed in this section.



Figure 11: McKenzie, Bridget. "The Wild Museum". Photograph. Flickr. 2021, 2 August. source: <https://www.flickr.com/photos/bridgetmckenz/51352137461/in/album-72157719679012885/>.

An activity discussed in depth during the interview was the *Wild Museum* at the Timber Festival 2021. During this festival in Feanedock, the Climate Museum UK hosted a workshop for children and their parents. The hosts were dressed up as four animals: a magpie, a badger, a squirrel, and a beetle, and each had their own role during the workshop, in this way highlighting various problems related to the climate. The magpie addressed the issue of littering and how this influences the lives of animals, as the bird was collecting "shiny plastic wrappers" in their nest.²⁴¹ The squirrel had a collection of seeds, both exotic and native, and explained how they could not eat those exotic seeds that were starting to overcrowd their usual oak trees with acorns. The badger talked about coal and the mining industry, while the

²⁴¹ McKenzie.

beetle had a collection of clay. All these elements refer to the past and present of the National Forest in Feanedock as a landfill and site for clay extraction. The animals, especially the beetle, then asked for the help of the children as they have the imagination needed – and dextrous thumbs – to solve this problem. McKenzie explained that, even though the task was rather abstract, the children immediately started turning the clay into seeds, mushrooms, etc. Nonetheless, what the children made was not as important, as this moment in the activity was first and foremost meant to stimulate conversation. During the claying, the children had the opportunity to discuss the activity and how this impacted their feelings. Also, the parents of the children were invited to participate both in the activity through books on the discussed issues that were placed close by for them to read while their children were off talking to the animals, and in the conversation afterwards. The workshop ended with the kids helping the animals place the clay containing seeds in the forest, hoping to regenerate it.

Two upcoming activations that Bridget McKenzie referred to in the interview are also relevant to this thesis. One is a research project with Goldsmiths, University of London. The university will collaborate with students from three local schools and “form a research partnership with parents, teachers, and local businesses and campaigners.”²⁴² McKenzie explained that the Climate Museum UK “will teach them how to do research in these subjects, and how they can communicate with influential people to take action, and what they might be able to do creatively to take action.”²⁴³ This project is meant to empower the students involved and help them take direct action, with their intrinsic motivation as a starting point. The second activation is called *Future Us* and helps the participating young people to “envisage a thriving future in an earth crisis.” With this activity, the Climate Museum UK wants to help the participating young people to imagine a future in which they are doing well and acting sustainable whilst also living in a world that is affected by the changing climate. This activity thus tries to address planetary prospects that are not always as positive in a more hopeful manner by imagining a future in which they are doing well. Together with a guide from that future who asks them for their help, the participants reflect on what they want to do to help that future and what they must do in order to accomplish this. As a reminder for this chosen path, they make a talisman that can serve as a reminder of what they are doing it for,

²⁴² McKenzie.

²⁴³ McKenzie.

functioning as a kind of conscience. Ideally, the Climate Museum UK hopes to produce a sort of application or follow-up guide that can help the participants outline the various actions they need to take to accomplish that future. This guide can form a step-by-step plan or wish list for young people to come back to in moments of uncertainty. Furthermore, this guide is a way of maintaining engagement with the participants even after the workshop and might help preserve their motivation to act.²⁴⁴

Similar to the workshop of *Framer Framed*, the Climate Museum UK emphasizes the importance of having a conversation to process the emotions of the participants. Bridget McKenzie indicates that the climate crisis can be a very sensitive topic and cause a lot of stress, hence the museum's choice to use a more trauma-sensitive method to approach and discuss these issues. This is reflected within the activities of the museum as they are often invited to represent the organisation at an information fair or event. On these occasions, the museum uses existing resources to create a small pop-up stall where they hope to engage visitors in a conversation about the climate emergency.²⁴⁵ In order to do so, the museum uses several conversation techniques but also coping mechanisms they developed.^{246, 247}

As has become apparent, the activations of the Climate Museum UK value personal conversation with the participants as a manner of processing the complex emotions related to the climate crisis. Another example of an activation stimulating reflection and discussion is *Heat in the City*, an activity that aims to address how people experience the changing climate and how this impacts them. As part of the project, the participants are asked when they experienced extreme heat and add this to a timeline created by the museum. "This timeline will be in the shape of a tree so the past is kind of linear and then the future branches off into many possible events or futures."²⁴⁸ Even more so, the museum will ask for the participants to indicate where in their body they experience heat, what they smell in a heated city, etc. focussing on the bodily aspect of the changing climate. McKenzie explained that the museum tries to link the head and the mind, and while doing so also helps the participants to reflect

²⁴⁴ McKenzie.

²⁴⁵ McKenzie.

²⁴⁶ 'Guide to Climate Conversations'.

²⁴⁷ McKenzie, 'Climate Coping Strategies'.

²⁴⁸ McKenzie, Interview Climate Museum UK on Youth Engagement.

on what possible direction the future might head towards.²⁴⁹ In addition to these more reflective activations, the Climate Museum UK also hosts workshops and activities that require more direct actions, such as *Acts of Tree Kindness* and *Acts of River Kindness*. These activations expect people to go out on the streets and pay attention to their surroundings. More so than picking up litter, these activities want to help those participating to notice the nature in their immediate surrounding.²⁵⁰

Analysis

McKenzie reiterated that the Climate Museum UK does not intend to lecture their visitors into changing their lifestyles. Rather, the museum wants to focus on “enabling people to feel that they can act and that they have the power.”²⁵¹ All the activations the Climate Museum UK hosts are built on the idea that actions and interest should come from intrinsic motivation, definitely when those participants are children and young people. McKenzie explained that in order to empower children, they need to be able to practise empowerment regularly and feel like they have the opportunity and space to do so. An important prerequisite for the efficacy of the project is the underlying interests and intrinsic motivation of each participant. If young people feel pressured by external factors to engage in a certain activity, with a specific topic, or in a certain way; the long-term impact is often limited, and this can even result in the disempowerment of the participants. Therefore, the Climate Museum UK rather focuses on creating “a lust for empowerment and an inner sense of motivation and self-autonomy.”²⁵² Most of the activations link the discussed themes to the personal lives of the participants. *Heat in the City* for example links the increasing number of heatwaves to the personal experience of heat, while both *Acts of Tree and River Kindness* focus on the nearby surroundings of the participants. The research project with Goldsmiths on the other hand focuses on the local neighbourhood and how the people living there might adapt to climate change. In doing so, the museum highlights the personal relevance of the climate crisis and as a result, increases the motivation of participants.

²⁴⁹ McKenzie.

²⁵⁰ McKenzie.

²⁵¹ McKenzie.

²⁵² McKenzie.

Furthermore, to stimulate this motivation, the Climate Museum UK helps the participants to focus on a future with hope, while also keeping all the possible futures open. The museum describes this as possitopian; it “expands the cone of the possible future, and draws on geophysical realities and data. It applies maximum imagination to help us envisage future scenarios which are potentially worse or better than we might allow ourselves to think.”²⁵³ A great example of this approach can be found in the *Heat in the City* project’s timeline, branching into multiple futures. With this method, the museum tries to avoid the doom-and-gloom approach while also avoiding a naïve idea of the future without any climatological impacts, preparing us for a realistic future without losing hope. Another example with a focus on the future is *Future Us*. This activity in a certain manner resembles the questions posed by Klimaatmuseum, as it tries to imagine and stimulate the idea that a sustainable future is possible. However, the Climate Museum UK digs deeper, not only trying to imagine this future but also trying to conceptualise the path towards that future.

To achieve this goal, the museum addresses current problems causing or caused by climate change and makes the participants reflect on these issues. It is through analysing these issues that the participants develop a critical understanding of these topics and can use this as a starting point to come up with possible solutions. Again, there are various projects of the museum that underwrite this approach. *Heat in the City* tackles the increasing number of heatwaves, and the *Wild Museum* addresses the impact of exotic plants, garbage production, and the mining industry. The most telling activation is the planned project with Goldsmiths University of London, as the participating young people are free to decide on the topic they would like to study, and by researching they can draw conclusions on the best possible solutions. Even more so, these solutions will be bottom-up as the young people go into conversation with the local community and stakeholders.²⁵⁴ This strengthens the feeling of influence of young people on the issue. This activity shows that motivation and knowledge can go hand-in-hand. Not only do the students learn how to conduct research, but they also get to know the issue they analyse on a deeper level. In addition, the young people explore various manners to take action into their own hands, both finding practical solutions to the

²⁵³ McKenzie, ‘A Possitopian Future’.

²⁵⁴ McKenzie, Interview Climate Museum UK on Youth Engagement.

issue, and manners to reach out to bigger organisations and even use political channels. In short, the activations of the Climate Museum UK comply with what Schreiner, Henriksen, and Hansen define as prerequisites to empowerment. Moreover, some of the activities have the possibility to increase collective efficacy as it reaches out to the local communities, such as the project with Goldsmiths.

Similar to Framer Framed, the Climate Museum UK offers a safe space for the participants to discuss this difficult topic of climate change and process the trauma associated with it. A key aspect to creating a safe environment is “inviting participation and absolutely not requiring it.”²⁵⁵ So, the participants can go into dialogue with the hosts if they feel comfortable and discuss their perceptions and feelings without any form of judgement. As previously mentioned, the Climate Museum UK has a strong focus on conversations as it plays an important part in processing eco-anxiety. Activities such as *Heat in the City*, *Future Us*, *the Wild Museum*, and even the pop-up stalls, all have conversations woven throughout the workshop or event. What the exact position is of the hosts within these conversations is not clear, though it appears that the hosts mainly ask questions, and it is up to the participants to formulate their own answers, fitting the problem-posing model of Paulo Freire. Similarly, the activations can also be used to practise their empowerment. “Empowerment is like a spectrum,” Bridget McKenzie explained to me, “there are many, many steps towards empowerment and you have to keep practising it and you have to keep creating the conditions for empowerment for every scenario that they are in.”²⁵⁶ The workshops of the Climate Museum UK can thus offer an environment for young people to practise their mental strength and motivation, and their practical knowledge, both useful when engaging with climate problematics. An example of such a skill is “creating a connection with other people and appealing to their values and their feelings. So, how to use creative writing to really connect with people, [...] how to write a powerful letter.”²⁵⁷

The activations of the Climate Museum UK form a basis and starting point for further action. Combining reflection with small actions, the museum links changes in knowledge and attitude

²⁵⁵ McKenzie.

²⁵⁶ McKenzie.

²⁵⁷ McKenzie.

to behavioural change. In the *Wild Museum*, the children were invited to spread balls of clay containing seeds of local plant species in order to regenerate the forest.²⁵⁸ More symbolically, the museum often makes a talisman together with the participants as a promise of the participants to themselves to act. Through the activities and reflection, the museum thus wants to motivate further action. Bridget McKenzie explained that at most of the workshops, they also have a poster ‘What can you do?’ explaining possible further steps for the participants to follow up on after the event, and the various means to do so.²⁵⁹ The activations work also the other way round, action followed by reflection; in the *Acts of Tree Kindness* and *Acts of River Kindness*, the participating persons are first encouraged to actively pick up litter, but in doing so are invited to consider the nature within their surroundings and their impact on this nature. The idea of praxis is thus omnipresent in the workshops of the Climate Museum UK. Nonetheless, these actions are limited by the means of the participants. Hence, in its activations aimed at people living in the Global North, the Climate Museum UK tries to consider the diverse personal, cultural, and socio-economic backgrounds of the participants. McKenzie illustrated the relevance of doing so by referencing the “increasing inequality in the United Kingdom.”²⁶⁰ Furthermore, the museum has no intention of placing the responsibilities of climate action on young people.

The museum as activation

The Climate Museum UK has a strong array of activations addressing the climate emergency, bringing young people in contact with the climate emergency in an accessible way. The activities’ aim is to empower the young participants and offer them the tools needed, not only to express their opinions but also to act. Furthermore, the activations build on the intrinsic motivation of the participants as external pressure can be disempowering. In addition to the activities, the museum hopes to develop a tool – like a phone application – to keep the participants engaged, even after the workshops. Currently, the museum already offers a great deal of information and methods for the participants to undertake action. Though, bumping against the same issue as the Klimaatmuseum, the Climate Museum UK seems to overcome the issue of the attention economy by offering posters with follow-up actions during the

²⁵⁸ McKenzie.

²⁵⁹ McKenzie.

²⁶⁰ McKenzie.

activations and providing information on their website so there is no time lost researching and gathering information by those interested. The digital platform functions thus as an addition to the workshops that in contrast to the Klimaatmuseum and Framer Framed, encompass direct action. Further, within their activities, the Climate Museum UK tries to pay attention to diverse dimensions of the climate crisis, such as the informational, the emotional and the practical side, by bringing together reflection and action, while still taking the personal experience of the participants into account.

The Museum as Enabler

These four museums each have their own approach for engaging with children and young people, centralising different aspects of the process of climate empowerment. While the Natural History Museum aims to provide a range of possible solutions and approaches to the climate crisis, the Klimaatmuseum focusses on inspiring the visitor and looking hopefully towards the future. Framer Framed and the Climate Museum UK both have a strong emphasis on creating a safe space for the participating young people in order to practise their empowerment, however, the Climate Museum UK actively tries to link this empowerment to behavioural change. Nonetheless, there are similarities to be found between each of the approaches.

Practicing empowerment

The most important one is the role of young people themselves within these museums. In each of the four museums, the young participants take up an important position within the activities and are seen as equals to the host – or student-teacher. The participants are stimulated to go into dialogue with each other but also with the student-teacher. Framer Framed created a specific moment in their *CICC* workshop for the participants to discuss their understanding. Similarly, the Climate Museum UK had a moment of reflection for the participating children and their parents in the *Wild Museum* activity, but even more so the Climate Museum UK weaves dialogue-stimulating questions throughout their activities such as the *Heat in the City* project. The Klimaatmuseum and the Natural History Museum have a comparable approach creating moments of dialogue throughout their exhibitions by posing questions for the visitors to answer. While the Klimaatmuseum only does this through written questions, the Natural History Museum engages with their visitors through science educators in the exhibition. Another way the Natural History Museum engages in dialogue with young people is through their online series, inviting various young activists to share their views and actions. Even though the museums have different approaches, the opinions of the young participants are valued as equal to the student-teacher and are free of judgement.

The activities of the Climate Museum UK and the Klimaatmuseum go further than dialogues with young people as they are fulfilling an active role within the activities. The

Klimaatmuseum places the participating children in a position where they have the power to pass judgement and decide on the best offer; consequently, they are able to place the responsibility of caring for the climate on the bidding organisations. They are given a position of power. In the upcoming research project of the Climate Museum UK in cooperation with Goldsmith, the young people are given the freedom to decide what topic they want to explore and conduct their own research on, supported by the museum and the university. Slightly different from the other two museums, the Natural History Museum involves young people in the development of their activities, by asking for feedback from a group of young volunteers. In this way, the museum tries to respond to their needs. Also, Framed Framed's *CICC* workshop was created and hosted by young interns that can relate easily to the young participants.

In all four cases, the museums ascribe an important role to young people. Young people are placed in an equal position to the museum itself, and by doing so the museums try to listen and take into account what they have to say. In order for the young persons to feel at ease in sharing their opinions, the museums try to create a safe space. Especially, Framed Framed and the Climate Museum UK mention the importance of creating a safe space for the participants to express themselves. Framed Framed puts a lot of effort into creating a good group atmosphere, while the Climate Museum UK emphasised the need for free will, referring to the intrinsic motivation of young people to participate in workshops. Bridget McKenzie stated that when organising a workshop for a school, the students have the choice to join the activity as compulsory participation can even disempower the participants. It is this safe space that is an important asset of the museum, providing a space for young people to go into dialogue, not only with the museums but also with communities or even government representatives.²⁶¹ All of the above-discussed features relate or help to create this safe space where young people feel heard and can practise feeling empowered. This all ties into the Pedagogy of the Oppressed understanding education as a safe space for equal dialogue between the student-teacher and the other students.²⁶²

²⁶¹ Newell, 'Climate Museums'.

²⁶² Freire, *Pedagogy of the Oppressed*, 67.

If museums want to be of aid to their young visitors, it is pivotal that they provide a safe space for young people to engage with the climate crisis, to go into dialogue with each other and the museum, and to practise their climate empowerment. Empowerment is a process that takes time and practice, the opportunity for young people to practise their empowerment is an indispensable aspect of the museum's remit.²⁶³ Within this process of empowerment, museums take on the role of a student-teacher that is equal to the young participants, actively learning together with them. Museums should *enable* young people to explore, discuss, and act on the climate crisis in an environment they feel supported in.

Towards the uncertain future

Another important aspect that applies to the four museums is the future-oriented approach. Each of the museums focuses on a future the participants are headed towards. Nonetheless, the understanding of these futures is very diverse. The Klimaatmuseum emphasises the importance of imagination and creativity in order to envision a sustainable future. With this approach, the museum tries to avoid a pessimistic and fatalist outcome, looking instead toward a future with renewed hope. With the right amount of imagination and creativity, the future is an opportunity to change the underlying ideas and structures that shape today's society.²⁶⁴ The Climate Museum UK uses a specific approach in their activities referred to as 'possitopian'. This approach encourages the participants to explore all the possible futures and in doing so the Climate Museum UK hopes to bring idealists and pessimists together and "create a viable path for humanity (or for communities) amidst the shifting and uncertain realm of the Possible."²⁶⁵ Similar to the Klimaatmuseum, the Climate Museum UK plays into the imagination and creativity of the participants to envision these many possibilities, as can be seen in their activities such as *Future Us* in which they are asked to envision a future in which they thrive, or *Heat in the City* where they are stimulated to think about the various futures related to the issue of heat.

This differs from the approach of Framer Framed and the Natural History Museum as these two museums seem to focus on a more concrete future. Framer Framed's activity focussed

²⁶³ Hayden et al., 'Pedagogies of Empowerment in the Face of Climate Change Uncertainty', 120–21.

²⁶⁴ Knight, 'Amitav Ghosh: What the West Doesn't Get about the Climate Crisis'.

²⁶⁵ McKenzie, 'Explaining Possitopia'.

on the future of the participants themselves. It aims to empower the young participants and prepare them for the future as they will be/are part of society themselves, having a growing influence on the system. Also, the Natural History Museum's approach is quite concrete, yet future-focused. Their strategy states that they aim for a world in which both the planet and humanity thrives, and with *Our Broken Planet*, the museum offers a range of possible methods to obtain this goal. Even more, the museum can also help the young visitors to prepare for the future, not only through mitigation and adaptation but also by teaching them the language to discuss these issues and their opinions on them.

The four museums each in their own manner thus try to help the young participants move towards an uncertain future, by helping them explore the possibilities that the future might hold but also by preparing them for that future in which climate change will impact their lives. Just as Freire's education model, museums can offer a way for young people to break with the current system and the linked beliefs, and move beyond them.²⁶⁶ The climate crisis is an opportunity to reimagine our future, but as Conor O'Keeffe said: "It is going to get worse before it gets better, if it gets better."²⁶⁷ By presenting an open future, museums can show young people that both their own and the planet's future is not pre-determined. It *enables* them to look beyond the polarised scenarios shaped by naïve optimism or fatalism of the climate crisis, envisioning a future they are motivated to work towards.

Climate tools, Community engagement, and Creativity

In addition to these two approaches that all four museums use, various methods differentiate the case studies from each other and are more impactful in the empowerment of young people. The Natural History Museum and the Climate Museum UK for example both offer tools for the young participants to get started with. The Natural History Museum explained that they aim to offer a broad range of possible actions, empowering young visitors to decide for themselves what action they wish to take. In addition to the hands-on activations provided throughout the exhibition and online events, the museum also helps the participants to reflect on what they deem as an appropriate response to the climate crisis through

²⁶⁶ Freire, *Pedagogy of the Oppressed*, 33.

²⁶⁷ O'Keeffe and Foster, Interview Natural History Museum on Youth Engagement related to *Our Broken Planet*.

conversations with science educators and the interactive resources offered by *The Liminal Space*. However, these actions are less structural options. The Climate Museum UK also provides actions for the young people to use within their daily life through their posters, but also with their activities in which actions are undertaken, such as planting seed bombs or picking up litter. Yet, the museum goes further than these practical actions and also tries to teach useful skills to the participating student such as letter writing for a call to action, communication with influential people, or conducting research. These tools provided by the museums support the children further in their empowerment and help them in undertaking further action.²⁶⁸

Another aspect of climate empowerment is community engagement as the community can serve as a source of support to young people. The Climate Museum UK is the only museum that actively engages with the local community of the participating young people. In their upcoming activity, the young participants will conduct research and engage with local people related to the schools of the participants, but also businesses and campaigners. Following Allen and Crowley, the Climate Museum UK hopes to create understanding between the different groups and in this manner increase the collective efficacy of the community.²⁶⁹ None of the other case studies engages as much with the local communities of the participants. The Natural History Museum plays into the online community by inviting young activist influencers. This online community can form a support for the young participants through their shared identity but has no impact on the local community of young people. The Klimaatmuseum has a reversed reasoning and hopes to influence the local community of the participating children via the children themselves, as also described by Williams and McEwen.²⁷⁰ By making the children reflect critically on their daily life and the climate crisis, the museum hopes they will make the parents aware of their responsibility for and impact on the future of the planet and thus the future of their children.

A third aspect is the approach used within the activities of the museums. Three of the four museums have a strong focus on the creativity of the participating children and young people.

²⁶⁸ Schreiner, Henriksen, and Kirkeby Hansen, 'Climate Education', 8.

²⁶⁹ Allen and Crowley, 'Moving beyond Scientific Knowledge', 305–7.

²⁷⁰ Williams and McEwen, "'Learning for Resilience" as the Climate Changes', 6.

The Klimaatmuseum not only stimulates their visitors to use their creativity to envision a better future but also incorporates the creativity of young people within their activities, asking them to invent a solution for the climate crisis. Framer Framed helps the participants express themselves through art. Forced to use different materials and words from the free-writing exercise, Framer Framed tries to inspire the participants but more importantly, the created artwork helps the participants in their reflection afterwards; the art made by the young people is a prompt to start further reflection. The Climate Museum UK mainly uses art to help the young participants process their climate-related emotions and anxiety, and help them express those in a creative manner that works for the participants. More than a creative outlet, the museum also hopes that the participants use their creativity to create a talisman for themselves that would function as a reminder of their personal goal or approach. On the contrary, the Natural History Museum asks for little creative input from the young visitors themselves as their approach is very practical and information-based. Even though the participants have the possibility to engage with the in-exhibition activities, in almost no activity the young visitor is asked to reflect creatively, neither to express themselves nor to invent their own creative solution.

Combining these three aspects, museums can become a space that *enables* young people to take action. By providing the necessary tools entailing knowledge, attitudes, and skills, museums can help young people act. In this context, knowledge does not simply refer to scientific information but also entails possible actions to take and channels through which change can be enacted. By doing so, young people do not have to rely on the action of others as they have the information and skills *enabling* them to act. Furthermore, museums can form connections with local communities and focus on increasing collective efficacy within these communities. Museums can help communities see the value of engaging in climate action, and in doing so, foster a supportive environment for young people to act outside of the safe space of the museum. Lastly, museums should be open to the input of young people and give them the freedom to experiment, believing in the creativity and abilities of this demographic. It is creativity that *enables* young people to make use of the possibilities that the future holds.

The museum as enabler

Young people have been empowering themselves all over the world, speaking up and signalling that the future is a topic of great concern for them, as it should be for adults too.²⁷¹

If young people can empower themselves; how then can museums support them? What role can museums still play in the climate empowerment of young people? Based on the comparison between the case studies, I have found five key elements that are crucial when engaging with young people on the topic of climate change. I argue that implementing these elements can help museums create activities enhancing the climate empowerment experienced by young people. First of all, a museum that feels like a safe space *enables* young visitors to enter into a mutual dialogue, providing them with the opportunity to practise their own empowerment. Secondly, a “possitopian future” *enables* young people to be open to the possibilities that the future might bring, ushering them away from the notion of a predetermined future.²⁷² Thirdly, by providing knowledge, attitudes, and skills; museums *enable* young people to act independently. Fourthly, community engagement by museums *enables* young people to move beyond the museum walls, propagating their ideas to their immediate surroundings. Lastly, emphasising and stimulating the creativity of young people *enables* them to invent their own solutions. By bringing these five elements together, I introduce a new approach for museums to engage with young people. Rather than museums empowering young visitors, these five characteristics *enable* young people to empower themselves and take action on their own terms – with support from the museum. By providing the facilities that young people need, museums can take up their role *as an enabler* in the climate empowerment of children and young people.

²⁷¹ Hickman et al., ‘Young People’s Voices on Climate Anxiety, Government Betrayal and Moral Injury’, 3.

²⁷² McKenzie, ‘A Possitopian Future’.

Conclusion

On the ninth of September 2018, Greta Thunberg – at the time a 15-year-old student – decided to start protesting outside of the Swedish parliament. More than four years later, she still is, and she is still not alone; young people all over the world are standing up for their future, as it is their future that is becoming more uncertain due to the neoliberal capitalist system colonising the future. Because of the inaction of adults and governments, young people can be seen as oppressed by this system, experiencing climate anxiety. Standing up for their rights, young people are thus empowering themselves and taking action into their own hands. Following the *Pedagogy of the Oppressed* in which Freire argues that education can play an important role in the empowerment of an oppressed group, museum education can be seen as an opportunity to support young people in their empowerment for climate action. This thesis builds on earlier research on the social responsibility of museums and argues that museums are fitting institutions to help instigate this action. Many museums, including the four case studies in this research – the Natural History Museum, Framer Framed, the Klimaatmuseum and the Climate Museum UK – are already engaging with young people on the climate crisis. This thesis wanted to uncover what approaches museums have already been using to empower children and young people in the context of the climate crisis.

As the scope of this research was limited to the Global North with case studies from the Netherlands and the United Kingdom, the results cannot be extrapolated. That is why this thesis aims to instigate further research in the climate empowerment of children and young people and the role of museums. Not only is a more global perspective needed, but the important factor of the intersectionality of climate change is also left out, even though this forms a key issue within the cultural dimension of the climate crisis. Even more so, additional research questioning young people on the sense of their empowerment before and after the museums' activities could possibly reinforce the arguments of this thesis. Furthermore, it would be interesting to conduct a more in-depth study on the engagement with the climate crisis through education in art institutions. As creativity can play a pivotal role in climate action, museums of art can be of greater importance than currently assumed.

Based on the case studies analysed in this thesis, I discerned four different profiles based on what characteristic of empowerment and the Pedagogy of the Oppressed the museums focus on. Firstly, the Natural History Museum has a strong emphasis on providing information from various sources including young peers on what is causing the climate to change and on possible solutions to mitigate these changes. It is with this information that the museum tries to stimulate reflection by the visitors and bring about change. Secondly, Framer Framed focused on creating a safe space for the young participants to go into dialogue with each other, reflecting on their position within the climate crisis. Thirdly, the approach of the Klimaatmuseum lays importance on creativity and imagination as these two skills can help young people to envision a more hopeful future wherein a sustainable way of living is possible. The museum inspires its young visitors to change. Lastly, the Climate Museum UK is a combination of the above but emphasises action more so than the other museums. Not only does the museum hope to activate the participants during their workshop, but it also aims to empower their participants to take further action.

Comparing these four approaches, five reoccurring characteristics stood out forming the basis of a new approach for museums to support the climate empowerment of young people: *the museum as an enabler*. First of all, empowerment is a process that takes time and practice. Museums can offer a space for young people to practise this empowerment. They can be safe spaces in which young people are free to discuss not only their understanding of and opinions on the climate crisis but also their feelings. Through dialogue and engagement, museums can help children and young people understand they are fully-fledged people whose opinions matter.²⁷³ In this problem-posing model, the museum and young people engage with the climate crisis and analyse it together by looking for the causes and the functioning of this emergency. It is through understanding these problems, that the students learn to critically analyse and simultaneously question their own current situation.²⁷⁴ The role of the museum within this process is that of a student-teacher; the museum can help young people learn, but vice versa just as much. By directly involving young people within the museum and the development of activities, the museum can help assist young people better. Listening to

²⁷³ Freire, *Pedagogy of the Oppressed*, 39.

²⁷⁴ Freire, 66–69.

children does not suffice, they must be actively engaged and positioned “as legitimate practitioners” within the museum.²⁷⁵ The museum thus forms a safe space in which young people are free to explore and engage with the climate crisis through their own understandings, and in which they can practise their empowerment through action supported by the museum.

Secondly, all four museums seem to look forward to the future with an open mind – to varying degrees – as they present the future as a possibility for change. Without being blatantly naïve in their approach, museums can help young people imagine a variety of futures in which the planet has changed, and structures might have shifted towards a more sustainable approach. While the doom-and-gloom representations of the future can be disempowering resulting in a fatalist attitude, presenting the future as a realistic opportunity for change can stimulate hope and motivation to act. Simultaneously, museums can also help prepare young people for a climate-impacted future.

Thirdly, museums can help children act by offering the needed tools. On the one hand, museums can offer direct hands-on actions that can easily be implemented in the lives of young people. On the other hand, more than offering possible actions for the young people to execute, museums can provide the knowledge and skills needed to take action, such as conducting research, communication methods, etc. Furthermore, the museum can be a channel through which change can be enacted, or it can present channels for the young people to be heard and to act through. Young people will feel more empowered when they acquire the knowledge and skills themselves and put them to use. Hayden and colleagues wrote that young people could feel even more empowered when they have the opportunity to practise these tools and skills in a safe space, and this results in a successfully implemented change on a small scale.²⁷⁶

Fourthly, museums can form a gateway towards a larger public. Not just providing channels, they are a channel. Museums can be a space where people can meet, listen to each other,

²⁷⁵ Cutter-Mackenzie and Rousell, ‘Education for What?’, 100.

²⁷⁶ Hayden et al., ‘Pedagogies of Empowerment in the Face of Climate Change Uncertainty’, 121.

and go into respectful discussions. In this way, young people are be given a platform to engage with other people of the community and phrase their concerns, ideally resulting in a constructive debate.²⁷⁷ Nonetheless, museums should reflect on their position within society and how this might impact their visitors, as it seems there are still barriers that withhold people from participating – it must be sure to deconstruct these first.

Lastly, museums can support young people in their creativity. They can both help children and young people to explore and express their emotions concerning the climate emergency and can help them believe in their abilities to act. Nonetheless, “Creativity as a mode for change must work alongside a critical and reflexive analysis of our views and values, thereby demonstrating how all these things are linked to climate change.”²⁷⁸ It also links back to the possibilities that the future might hold, as the young people’s creativity can help them imagine a future they want to work towards and how.

In conclusion, role of museums within the climate empowerment of young people is to support them in this process. Young people already made clear what their views are on the climate crisis. It is now up to museums to *enable* children and young people to empower themselves by offering a safe space where they can practise their empowerment. It is by letting young people engage with the climate crisis in a creative manner that their own ideas can flourish. The museums can offer the needed tools, skills etc. to help the young people in reaching those goals. Even more so, the museum can be a channel for children and young people to act and be heard, and in doing so should listen to them as well. Reaching success on a small scale in the context of a museum can lead to further empowerment of young people. More than a platform for children and young people, museums are a place of praxis where reflection and action can come together. The museum’s role is to *enable* young people to engage with the climate problematics on their own terms and to support action by providing the right tools – information, attitude, and skills – by listening to the needs of children and young people.

²⁷⁷ Newell, ‘Creative Collaborations’, 144.

²⁷⁸ Cameron, Hodge, and Salazar, ‘Representing Climate Change in Museum Space and Places’, 11.

By creating this new understanding of *the museum as an enabler*, this thesis hopes to form a source of inspiration and stimulate museums to rethink what it means to be a cultural institution within a time of climate emergency. The four case studies can serve as an incentive for other museums to look into their own approach to climate empowerment or to create one, and in doing so support those who will be/are impacted the most.

Bibliography

- 'A New Direction Listening Project: Young Londoners, and the Response of Culture to the Earth Crisis.' A New Direction Listening Project. Climate Museum UK, March 2021. <http://anewdirection.org.uk/asset/5033/download>.
- Natural History Museum. 'A Planetary Emergency: Our Response Strategy to 2031'. Accessed 8 March 2022. <https://www.nhm.ac.uk/content/dam/nhmwww/about-us/our-vision/strategy-to-2031.pdf>.
- Climate Museum UK. 'About'. Accessed 1 March 2022. <https://climatemuseumuk.org>.
- Framer Framed. 'About Framer Framed'. Accessed 28 March 2022. <https://framerframed.nl/en/over-ons>.
- A New Direction. 'About Us'. Accessed 25 March 2022. <https://www.anewdirection.org.uk/about-us>.
- Allen, Lauren B., and Kevin Crowley. 'Moving beyond Scientific Knowledge: Leveraging Participation, Relevance, and Interconnectedness for Climate Education'. *International Journal of Global Warming* 12, no. 3/4 (2017): 299–312. <https://doi.org/10.1504/IJGW.2017.10005878>.
- Bawits, Noa. Interview Framer Framed on Youth Engagement related to Court for Intergenerational Climate Crimes. Interview by Stien Wouters, 17 February 2022.
- Bennett, Tony. 'The Exhibitionary Complex'. *New Formations*, no. 4 (1988): 73–102.
- Bentz, Julia, and Karen O'Brien. 'ART FOR CHANGE: Transformative Learning and Youth Empowerment in a Changing Climate'. Edited by Alastair Iles and Manjana Milkoreit. *Elementa: Science of the Anthropocene* 7, no. 52 (1 January 2019): 1–19. <https://doi.org/10.1525/elementa.390>.
- Bhattacharya, Sudip. 'Education as Empowerment: Review of Pedagogy of the Oppressed'. *Journal of Political Science Education* 16, no. 3 (2 July 2020): 403–6. <https://doi.org/10.1080/15512169.2019.1632715>.
- Cameron, Fiona. 'From Mitigation to Creativity: The Agency of Museums and Science Centres and the Means to Govern Climate Change'. *Museum and Society* 9, no. 2 (July 2011): 90–106.

- Cameron, Fiona, Bob Hodge, and Juan Francisco Salazar. 'Representing Climate Change in Museum Space and Places'. *WIREs Climate Change* 4, no. 1 (January 2013): 9–21. <https://doi.org/10.1002/wcc.200>.
- . 'Representing Climate Change in Museum Space and Places'. *WIREs Climate Change* 4, no. 1 (January 2013): 9–21. <https://doi.org/10.1002/wcc.200>.
- Celis Bueno, Claudio. *The Attention Economy: Labour, Time and Power in Cognitive Capitalism*. Critical Perspectives on Theory, Culture and Politics. London; New York: Rowman & Littlefield International, 2017.
- Climate Museum UK. 'Climate Museum UK'. Accessed 11 October 2021. <https://climatemuseumuk.org/digital-museum/>.
- Framer Framed. 'Court for Intergenerational Climate Crimes'. Accessed 11 October 2021. <https://framerframed.nl/exposities/court-for-intergenerational-climate-crimes/>.
- Framer Framed. 'Crisis Imaginaries'. Accessed 26 February 2022. <https://framerframed.nl/action-research/crisis-imaginaries/>.
- Cutter-Mackenzie, Amy, and David Rousell. 'Education for What? Shaping the Field of Climate Change Education with Children and Young People as Co-Researchers'. *Children's Geographies* 17, no. 1 (2 January 2019): 90–104. <https://doi.org/10.1080/14733285.2018.1467556>.
- Dichtl, John. 'Most Trust Museums as Sources of Historical Information'. American Association for State and Local History. Accessed 13 October 2021. <https://aaslh.org/most-trust-museums/>.
- Dijkstra, E.M., and M.J. Goedhart. 'Development and Validation of the ACSI: Measuring Students' Science Attitudes, pro-Environmental Behaviour, Climate Change Attitudes and Knowledge'. *Environmental Education Research* 18, no. 6 (December 2012): 733–49. <https://doi.org/10.1080/13504622.2012.662213>.
- Het Klimaatmuseum. 'Doe Mee'. Accessed 24 February 2022. This can be seen in the questions posed by the museum, the museum.
- ELANCE academy. 'ELANCE Academy'. Accessed 23 February 2022. <https://www.elanceacademy.nl/elanceacademy>.
- Framer Framed. 'Exhibition: Court for Intergenerational Climate Crimes'. Accessed 28 January 2022. <https://framerframed.nl/en/exposities/court-for-intergenerational-climate-crimes/>.

- Framer Framed. 'Framer Framed x ELANCE Coachingsacademie Voor Meiden En Jonge Vrouwen'. Accessed 30 January 2022. <https://framerframed.nl/en/dossier/framer-framed-x-elance/>.
- Freire, Paulo. *Pedagogy of Freedom. Ethics, Democracy and Civic Courage*. Oxford: Rowman & Littlefield, 1998.
- . *Pedagogy of the Oppressed*. New York: Herder and Herder, 1972.
- Ghosh, Amitav. 'Amitav Ghosh: Where Is the Fiction about Climate Change?' *The Guardian*, 28 October 2016. <https://www.theguardian.com/books/2016/oct/28/amitav-ghosh-where-is-the-fiction-about-climate-change->.
- Climate Museum UK. 'Guide to Climate Conversations', 16 September 2021. <https://climatemuseumuk.org/2021/09/16/autumn-equinox-news-2021-climate-conversation-special/>.
- Harrison, Rodney, and Colin Sterling. 'Museums Otherwise: A Compendium of Possible Futures'. In *Reimagining Museums for Climate Action.*, edited by Rodney Harrison and Colin Sterling, 6–15, 2021.
- , eds. *Reimagining Museums for Climate Action.*, 2021.
- Hattenstone, Simon. 'The Transformation of Greta Thunberg'. *The Guardian*, 25 September 2021. https://www.theguardian.com/environment/ng-interactive/2021/sep/25/greta-thunberg-i-really-see-the-value-of-friendship-apart-from-the-climate-almost-nothing-else-matters?CMP=tw_t_a-environment_b-gdneco%20%20%20%20https://fridaysforfuture.org/what-we-do/strike-statistics/.
- Hayden, Margaret, Rebecca Houwer, Michael Frankfort, Josephina Rueter, Teresa Black, and Paul Mortfield. 'Pedagogies of Empowerment in the Face of Climate Change Uncertainty'. *Journal for Activism in Science & Technology* 3, no. 1 (2011): 118–30.
- Het Klimaatmuseum. 'Het Klimaatmuseum - Homepage'. Accessed 11 October 2021. <https://www.hetklimaatmuseum.nl/>.
- Hickman, Caroline, Elizabeth Marks, Panu Pihkala, Susan Clayton, Eric R. Lewandowski, Elouise E. Mayall, Britt Wray, Catriona Mellor, and Lise van Susteren. 'Young People's Voices on Climate Anxiety, Government Betrayal and Moral Injury: A Global Phenomenon'. *SSRN Electronic Journal*, 2021. <https://doi.org/10.2139/ssrn.3918955>.

- Hoffman, Jeremy S. 'Learn, Prepare, Act: "Throwing Shade" on Climate Change'. *Journal of Museum Education* 45, no. 1 (2 January 2020): 28–41. <https://doi.org/10.1080/10598650.2020.1711496>.
- 'Jaarverslag 2020: Het Klimaatverslag - Een Onvergetelijke Zomer', 2021. <https://www.hetklimaatmuseum.nl/wp-content/uploads/2021/06/Jaarverslag-2020-Het-Klimaatmuseum.pdf>.
- Framer Framed. 'Kinderatelier: De Wereld van de Natuur'. Accessed 30 January 2022. <https://framerframed.nl/en/projecten/kinderatelier-de-wereld-van-de-natuur/>.
- Het Klimaatmuseum. 'Klimaatmakers'. Accessed 31 January 2022. <https://www.hetklimaatmuseum.nl/bezoek/klimaatmakers/>.
- Het Klimaatmuseum. 'Klimaatmakers Pakketten'. Accessed 1 February 2022. <https://www.hetklimaatmuseum.nl/klimaatmakers-pakketten/>.
- Knight, Ben. 'Amitav Ghosh: What the West Doesn't Get about the Climate Crisis', 6 November 2019. <https://www.dw.com/en/amitav-ghosh-what-the-west-doesnt-get-about-the-climate-crisis/a-50823088>.
- Kumar, Avinash. 'Paulo Freire's Pedagogy of the Oppressed: Book Summary'. LitCharts LLC, 9 July 2014. <https://www.theeducationist.info/paulo-freires-pedagogy-oppressed-book-summary/>.
- Latham, Lucy. 'Henry McGhie: Curating a Sustainable Future'. Green Heritage Futures. Accessed 12 January 2022. <https://open.spotify.com/episode/1p8swcAKmTlo5OUrxum5te?si=d590a5d100af4e65>.
- Matterson, Clare. 'Empowering Young Voices on the Planetary Emergency | Executive Director of Engagement'. Blogs from the Natural History Museum, 27 October 2021. <https://naturalhistorymuseum.blog/2021/10/27/empowering-young-voices-on-the-planetary-emergency-executive-director-of-engagement/>.
- . Museums and Galleries Responding to the Climate and Ecological Crisis - Day 1, 7 March 2022. <https://www.youtube.com/watch?v=OR2RV2Cij1g&t=8099s>.
- McGhie, Henry. *Mobilising Museums for Climate Action: Tools, Frameworks and Opportunities to Accelerate Climate Action in and with Museums*. Museums for Climate Action. London, 2021.

- McKenzie, Bridget. 'A Possitopian Future'. Climate Museum UK, 7 January 2022. <https://climatemuseumuk.org/2022/01/07/a-possitopian-future/>.
- . 'Climate Coping Strategies'. Climate Museum UK, 9 February 2020. <https://climatemuseumuk.org/2020/02/09/climate-coping-strategies/>.
- . 'Climate Museums UK: A Contemporary Response to the Earth Crisis'. *Museum Management and Curatorship* 35, no. 6 (1 November 2020): 671–83. <https://doi.org/10.1080/09647775.2020.1837003>.
- . 'Explaining Possitopia', 24 October 2020. <https://bridgetmck.medium.com/explaining-possitopia-96775ad78823>.
- . Interview Climate Museum UK on Youth Engagement. Interview by Stien Wouters, 15 February 2022.
- Monroe, Martha C., Richard R. Plate, Annie Oxarart, Alison Bowers, and Willandia A. Chaves. 'Identifying Effective Climate Change Education Strategies: A Systematic Review of the Research'. *Environmental Education Research* 25, no. 6 (3 June 2019): 791–812. <https://doi.org/10.1080/13504622.2017.1360842>.
- Murawski, Michael. *Museums as Agents of Change: A Guide to Becoming a Changemaker*. Lanham: Rowman & Littlefield, 2021.
- Nasr, Ramsey. *De Fundamenten*. Amsterdam: De Bezige Bij, 2021.
- Newell, Jennifer. 'Creative Collaborations: Museums Engaging with Communities and Climate Change'. In *Addressing the Challenges in Communicating Climate Change Across Various Audiences*, edited by Walter Leal Filho, Bettina Lackner, and Henry McGhie, 143–57. Climate Change Management. Cham: Springer International Publishing, 2019. https://doi.org/10.1007/978-3-319-98294-6_10.
- Newell, Jennifer, Libby Robin, and Kirsten Wehner. 'Introduction: Curating Connections in a Climate-Changed World'. In *Curating the Future: Museums, Communities and Climate Change*, edited by Jennifer Newell, Libby Robin, and Kirsten Wehner, 1–16. Routledge Environmental Humanities. London; New York: Routledge/Taylor & Francis Group, 2017.
- Newell, Jenny. 'Climate Museums: Powering Action'. *Museum Management and Curatorship* 35, no. 6 (1 November 2020): 599–617. <https://doi.org/10.1080/09647775.2020.1842236>.

Framer Framed. 'Noa Bawits'. Accessed 24 March 2022. <https://framerframed.nl/en/mensen/noa-bawits/>.

United Nations Human Rights: Office of the High Commissioner. 'OHCHR and Climate Change'. Accessed 4 December 2021. <https://www.ohchr.org/en/issues/hrandclimatechange/pages/hrclimatechangeindex.aspx>.

O'Keeffe, Conor. Email to Stien Wouters. 'Interview on "Our Broken Planet" - Master Thesis', 23 February 2022.

O'Keeffe, Conor, and Claire Foster. Interview Natural History Museum on Youth Engagement related to Our Broken Planet. Interview by Stien Wouters, 3 March 2022.

Het Klimaatmuseum. 'Onze Projecten'. Accessed 24 February 2022. <https://www.hetklimaatmuseum.nl/projecten/>.

The Liminal Space. 'Our Broken Planet'. Accessed 20 January 2022. <https://www.the-liminal-space.com/all-projects/our-broken-planet>.

Natural History Museum. 'Our Broken Planet: How We Got Here and Ways to Fix It'. Accessed 20 January 2022. <https://www.nhm.ac.uk/visit/our-broken-planet.html>.

Fridays for Future. 'Our Demands'. Accessed 7 December 2021. <https://fridaysforfuture.org/what-we-do/our-demands/>.

Natural History Museum. 'Our Vision and Strategy'. Accessed 2 March 2022. <https://www.nhm.ac.uk/about-us/our-vision-strategy.html>.

Het Klimaatmuseum. 'Over Ons'. Accessed 31 January 2022. <https://www.hetklimaatmuseum.nl/over/>.

Toeval Gezocht. 'Over Ons - Inspiratiebronnen'. Accessed 23 February 2022. <https://www.elanceacademy.nl/elanceacademy>.

Toeval Gezocht. 'Over Ons - Visie En Werkwijze'. Accessed 23 February 2022. <https://www.elanceacademy.nl/elanceacademy>.

Framer Framed. 'Public Hearings: Court for Intergenerational Climate Crimes'. Accessed 31 March 2022. <https://framerframed.nl/en/projecten/publiekshoorzittingen-court-for-intergenerational-climate-crimes/>.

Rousell, David, and Amy Cutter-Mackenzie-Knowles. 'A Systematic Review of Climate Change Education: Giving Children and Young People a "Voice" and a "Hand" in Redressing

- Climate Change'. *Children's Geographies* 18, no. 2 (3 March 2020): 191–208. <https://doi.org/10.1080/14733285.2019.1614532>.
- . 'A Systematic Review of Climate Change Education: Giving Children and Young People a "Voice" and a "Hand" in Redressing Climate Change'. *Children's Geographies* 18, no. 2 (3 March 2020): 191–208. <https://doi.org/10.1080/14733285.2019.1614532>.
- Rutten, Laura van. Interview Klimaatmuseum on Youth Engagement. Interview by Stien Wouters, 3 February 2022.
- Salazar, Juan Francisco. 'The Mediations of Climate Change: Museums as Citizens' Media'. *Museum and Society* 9, no. 2 (2011): 123–35.
- Sandell, Richard. *Museums, Moralities and Human Rights*. 0 ed. Routledge, 2016. <https://doi.org/10.4324/9781315312095>.
- Schreiner, Camilla, Ellen K. Henriksen, and Pål J. Kirkeby Hansen. 'Climate Education: Empowering Today's Youth to Meet Tomorrow's Challenges'. *Studies in Science Education* 41, no. 1 (January 2005): 3–49. <https://doi.org/10.1080/03057260508560213>.
- Schreiner, Camilla, and Svein Sjøberg. 'Empowered for Action? How Do Young People Relate to Environmental Challenges?' In *Beyond Cartesian Dualism*, edited by William W. Cobern, Ken Tobin, Henry Brown-Acquay, Mariona Espinet, Gurol Irzik, Olugbemiro Jegede, Lilia Reyes Herrera, et al., 29:53–68. Science & Technology Education Library. Berlin/Heidelberg: Springer-Verlag, 2005. https://doi.org/10.1007/1-4020-3808-9_5.
- Fridays For Future. 'Strike Statistics'. Accessed 8 October 2021. <https://fridaysforfuture.org/what-we-do/strike-statistics/>.
- Sutton, Sarah. 'The Evolving Responsibility of Museum Work in the Time of Climate Change'. *Museum Management and Curatorship* 35, no. 6 (1 November 2020): 618–35. <https://doi.org/10.1080/09647775.2020.1837000>.
- Sutton, Sarah W., 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: The Museum Journal* 60, no. 2 (April 2017): 151–74. <https://doi.org/10.1111/cura.12200>.
- Swim, Janet K., Nathaniel Geiger, John Fraser, and Nette Pletcher. 'Climate Change Education at Nature-Based Museums'. *Curator: The Museum Journal* 60, no. 1 (January 2017): 101–19. <https://doi.org/10.1111/cura.12187>.

- . 'Climate Change Education at Nature-Based Museums'. *Curator: The Museum Journal* 60, no. 1 (January 2017): 101–19. <https://doi.org/10.1111/cura.12187>.
- Albert Penn. 'The Liminal Space'. Accessed 29 March 2022. <https://albertpenn.com/theliminalspacecs>.
- Thompson, Tosin. 'Young People's Climate Anxiety Revealed in Landmark Survey'. *Nature* 597, no. 7878 (30 September 2021): 605–605. <https://doi.org/10.1038/d41586-021-02582-8>.
- Treichel, Pia. 'Why Focus on Children: A Literature Review of Child-Centred Climate Change Adaptation Approaches'. *Australian Journal of Emergency Management* 35, no. 2 (April 2020): 26–33.
- Van Reybrouck, David. 'The Colonisation of the Future. Living on the Brink of the Climate Catastrophe'. *Framer Framed* - Amsterdam, 8 January 2022. <https://framerframed.nl/en/projecten/lezing-david-van-reybrouck/>.
- Het Klimaatmuseum. 'Veiling Klimaatmakers'. Accessed 1 February 2022. <https://www.hetklimaatmuseum.nl/veiling-klimaatmakers/>.
- Williams, Sara, and Lindsey McEwen. "'Learning for Resilience" as the Climate Changes: Discussing Flooding, Adaptation and Agency with Children'. *Environmental Education Research* 27, no. 11 (2 November 2021): 1638–59. <https://doi.org/10.1080/13504622.2021.1927992>.