Green Governmentalities: Narratives of Nature Displayed in a Frisian Natural History Museum

Yasmin Masui Madsen

Thesis Supervisor: Dr. Carol Garzon Lopez

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Abstract

Natural history museums (NHM) are a site of green governmentality, imparting a certain truth about nature through various power-laden authorities and tools. Through this, the visitor subjects themselves to understanding nature through the narratives that are imposed upon them. This study uses Natuurmuseum Fryslân (NF) as a case study, to explore how they use their power as a green governmentality to shape narratives of nature. Through conducting discourse analysis and an interview, the narratives, the strategies for intervention, the authorities, and the modes of subjectification are investigated. In other words, it asks: what narratives are displayed; by who; how; and what subjects are thus created?. The narratives were understood through human-nature archetypes. The main findings were that narratives relating to mastery - that is, human control of nature - were most prominent in the museum. Narratives relating to idealism - that is, preserving and protecting nature - were almost nonexistent. Therefore, recommendations to reduce mastery narratives and increase idealism narratives were provided. The recommendations include what strategies to use and what authorities to introduce, in order to create a subject that can criticise the colonial histories and past portrayals of nature at NHMs and have motivation to continue to fight for nature.

"One man's life or death were but a small price to pay for the acquirement of the knowledge which I sought, for the dominion I should acquire and transmit over the elemental foes of our race."

- Mary Shelley (2012), Frankenstein

Introduction

Haraway (1984) refers to Mary Shelley's "Frankenstein" finding parallels between the story of the perils of knowledge and egoistic desires, and of the taxidermy of animals displayed in natural history museums (NHM) - the animal mirrors the monster, Western expeditioners mirror Frankenstein. The difference however is that Frankenstein understood the fault of his ambition by the end, but in many NHMs the animal is created into an immortal statue and the expeditioner is praised for their ambition (Haraway, 1984). This harrowing parallel and difference is a reminder of the risk of gaining knowledge and the persistent power and authority of the institutions that provide this knowledge. These institutions are able to become more powerful through gaining knowledge, and in turn the more powerful they become the more knowledge they can acquire.

The story of Frankenstein is saturated in theories of biopolitics. This discourse between the relation between 'life' and 'politics' usually concerns itself with the human body. In Foucault's assertions, biopolitics emerged after the French Revolution where "death's grip over life" (Campell & Sitze, 2013) relaxed due to the emergence of capitalism and economic and agricultural development (Foucault, 1990) and "methods of power and knowledge assumed responsibility for the life processes and undertook to control and modify them" (Foucault, 1990). This means that living became political because methods to intervene life and death were introduced by institutions of power in every level of the social body - from individual medicine to the administration of the collective (Foucault, 1990). On the topic of

institutions, Foucault presents the notion of 'governmentality', exploring "how to govern" (Foucault, 1991, p.7). A government is an "activity aiming to shape, guide or affect the conduct of some person or persons" (Foucault, 1991, p.2). Importantly, Foucault emphasises the productiveness of power in terms of its production of knowledge and truths. (Rutherford, 2007). As Foucault's biopolitics and governmentality only considers the human body, it fails to understand the power and control over all (non-human) life (Lemke, 2011). Therefore, green governmentality becomes a sub-branch of this discourse, looking at how truths of the environment are made and governed by various stakeholders (Rutherford, 2007). Specific to NHMs, those involved in the creation of the museum impose power to spectators visiting the museum by imparting knowledge and a certain truth.

In the same way biopolitics arose due to capitalism and economic development, green governmentality is inherently linked to neoliberalism, the practice of following the free market, privatisation and deregulation and reduction in government spending (Carlquist & Phelps, 2014). Techniques and rationalities of green governmentality make nature "market forces" (Adelman, 2015). NHMs also adhere to neoliberal techniques in the modern age. Museums have shifted from a cultural institution to one employing neoliberal operations (Geisler & Nieroba, 2022). This is a consequence of deregulation of state influence in European museums, as seen by the diversification of funding (outside of state funding) since the 1980s and thus an increasing separation of museums with the state. Funding comes from both the private (including visitors) and public sector, and thus incorporates both commercial and public interests (Geisler & Nieroba, 2022; Rutherford, 2011). The shift to the gamification of museums, the desire for entertainment and multi-sensory sites has been described as a neoliberal technique to engage in cultural activities because it "adds value" to education and knowledge as a means to enhance capital (Tulloch & Randell-Moon, 2018). Many museums also become a site of social change. This implementation of social change is

partly driven by neoliberal ideas. For example, smaller and newer museums must apply ideas of visitors' potential to create change because due to market prices, treaties, and legislation, these museums cannot build collections like older institutions have been able to do (Weil, 2007, p.35). Therefore, focusing on social change may be the only way newer museums can survive in the neoliberal market, as they lack other resources to sustain appeal. Additionally, due to the need of funds, museums use the idea of social or individual change to satisfy the public interests (Weil, 2007, p.32).

Many European museums have therefore transformed into a neoliberal site governed by various power-laden stakeholders that monetises and presents a certain truth about nature, creating specific environmental consumers. I aim to dissect this through a singular site - the Natuurmuseum Fryslân (NF) located in Leeuwarden, Netherlands. This leads to the research question:

How does Natuurmuseum Fryslân use its power as a green governmentality to shape the narratives of nature?

In dissecting this research question, two primary objectives are explored. Firstly, I ask **what narratives of nature are displayed in NF**. This means understanding how the structure of the museum and the discourse displayed in the museum portray a certain narrative of what nature is. Secondly, I question **who aids their power as an institution**. This refers to identifying the actors involved in making the museum a space of green governmentality, and how they interact with the museum.

One crucial term in the research question is left undefined: narrative. A narrative is part of meaning-making and is an interpretive strategy that is developed through the interpretation of various elements that come together to make a meaningful whole (Schorch, 2015). In thinking about NHMs, individual elements that work together to create a whole

diorama may create a narrative of what the diorama signifies, or on a larger scale, walking through a variety of individual displays may create a dominant narrative asserted in that specific exhibition. It allows the spectator to gain knowledge and express knowledge. However, these narratives can be derived from individual experiences and histories. Narratives are formed by visitors engaging with the displays, texts, images, videos, and other media through their own sociocultural and historical lens. Therefore, there is a potential for variability of narratives of nature that can form in visiting a NHM. This being said, Schorch (2015) has found that narratives formed are often shared by visitors, however it is *how* they form these narratives that are bound by their individual biography.

Due to the potential variability of narratives formed and the importance of individual biographies in forming these narratives, it is imperative that I state my positionality and reflect on my reflexivity. My positionality is stated under *Ethics* in the *Methodology* section.

Methodology

In order to investigate the research question, a literature review was first conducted to understand how research on narratives portrayed in museums have been situated previously. The predominant research method that I utilised was discourse analysis, in which I observed and analysed the exhibitions and examined texts, images, layout, and spectators as a means to grasp the narratives being told. In doing so, I was a participant observer by being a museum visitor. Additionally to the literature review and discourse analysis, I utilised a follow-up interview with a relevant party to gain further knowledge on background information that I would not have otherwise been able to gather, and to understand the intended narratives to be displayed.

Theoretical Framework

My research will be analysed through two theoretical frameworks. First, a governmentality analysis framework proposed by Rose and Rabinow (2006). Following the work of Foucault, Rose and Rabinow (2006) propose certain elements that would be necessary in conducting analytical work based on Foucault's theoretical work. These are to analyse one or more truth discourses, an array of authorities that speak that truth, strategies for intervention and the modes of subjectification. In other words, this analysis seeks to answer: what narratives are displayed?; by who?; how?; and what subjects are thus created?

In dissecting the truth discourses or narratives, a second theoretical framework of the human-nature archetypes (Johns, 2024; Milstein, 2008) is used to conceptualise the narratives at play. The human-nature archetypes categorise three dialectics: the mastery-harmony dialect, the otherness-interconnection dialect and the exploitation-idealism dialect. Mastery refers to the power humans have over nature. In Milstein's (2008) paper, this mastery is a product of the capitalist political economy leading humans to control aspects of nature, whilst Johns (2024) extends this to the mastery through science and how science shapes how we perceive and interact with nature. Harmony encapsulates an amiability and peace between humans and nature. The otherness archetype explains how nature is othered by humans and considered separate entities. Interconnection, whilst very similar to harmony, focuses more on the human and cultural interconnection to ecological processes. Exploitation takes into account the harm and commodification of nature by humans whilst idealism focuses on the desire to preserve nature and reverse destruction.

Literature Review

The literature review provides the summary of previous research on the narratives that museums portray. Literature was predominantly found through SmartCat, the academic

library catalogue offered by the University of Groningen. Relevant combinations of keywords such as "natural history museum", "narratives", "green governmentality" were used. Through this, approximately thirty results were found, of which eight were relevant to the study and were written in English. Thereafter, Google Scholar was used to find additional literature, with the same key words. Literature was also found by exploring literature that was cited in other relevant papers. Through these methods, over 400 papers were recommended, however through ensuring they were peer-reviewed, were written in English, were accessible to read and through reading the abstracts, an additional seven papers were deemed to be relevant to the research study (total of fifteen peer-reviewed papers). The narratives found within literature are understood through the theoretical frameworks.

Discourse Analysis

This research is restricted to the permanent exhibitions displayed in NF. The museum was visited two times to conduct discourse analysis. Observations and analyses were recorded through different tools. Notes were taken, complemented by voice recordings of my initial thoughts and analysis, images and videos (without identifiable visitors). The first visit allowed me to be immersed in the museum experience and to gather a large part of the data. After the first visit, I acknowledged that there were aspects that I likely missed because of my lack of understanding of Dutch. Therefore, I brought a Dutch translator for my second visit to translate texts or audio that I could not understand. The translator also provided their own knowledge on Dutch culture in order to contextualise any information from a Dutch perspective. Both visits lasted for around three hours each. Data saturation in discourse analysis was met after the second visit, and no further visits were needed.

The observations and initial analyses were accumulated onto a spreadsheet, in which narratives were categorised and supported with examples. This unfolds the truth discourses.

The spreadsheet also lists any stakeholders involved which looks at the array of authorities, and the ways in which these displays are presented - the strategies for intervention.

Interview

One interview was conducted with the project leader of exhibitions at NF, who was gained through convenience sampling. An email was sent out to the main museum email address, in which the project leader of exhibitions replied with interest to participate in the research. The purpose of the interview was to gain additional knowledge and therefore acts as supporting data to contextualise the discourse analysis. The interview was held after the two visits to the museum. It lasted sixty minutes. The interview was recorded and transcribed via Notta with permission of the interviewee. Afterwards, the interview was coded into themes present in the discourse analysis. The main findings of the discourse analysis and interview were shared with the participant in order to receive participatory validation.

Ethics

In conducting discourse analysis, it is crucial to state my positionality. I recognise that visitor experiences are diverse (Schorch, 2015), and although my analysis is supported by literature, the narratives that I present are created through my positionality as a non-Dutch university student with an interdisciplinary education that focuses on ecology. To alleviate this limitation, I am supported by a Dutch translator. I understand that my views come from a place of privilege, with access to tertiary education and the resources and opportunity to explore and criticise the current system.

The research follows the ethical guidelines for interviews and data protection and regulation (GDPR) of the University of Groningen.

Literature Review

Literature relevant to the research can be categorised into seven main narratives of nature *(Table 1)*. These narratives can be fit into the theoretical framework of human-nature archetypes. The strategies for intervention, authorities and modes of subjectification are also explored, following the governmentality analysis framework.

Narratives

Mastery-Harmony Archetype

> **Mastery Archetype. Nature and culture are justified by the white colonial body**, through assuming they hold the highest moral authority. Museums that display artefacts from around the world take part in "institutional imperialism" (Rutherford, 2011, p.11), in that specimens have been stolen during expeditions, many by wealthy collectors (Rutherford, 2011, p.11; Strasser, 2012; Wilson, 2019). This violence and mastery over nature is justified by western, white bodies through the notion that museums are a "repository of all natural knowledge" (Rutherford, 2011, p.11) and hence is considered necessary to conduct expeditions for the sake of knowledge. On the other hand, some museums take a decolonial approach and therefore, are acknowledging the colonial narrative and problematising it. A diorama called 'Lion attacking an Arab courier' at the Carnegie Museum of Natural History (Carnegie NHM) presented colonial and racist sentiments as it included a real human skull and also depicted a generalised understanding of non-western culture and natural history, as the courier wore attires from five different North African countries (Kiefer, 2021). However, through criticisms from scientific authorities, they explored this diorama's history and how to represent the diorama in a decolonial way. Additionally, the Natural History Museum London

(NHM London) offers Black Natural History tours, to provide knowledge on stories, people, culture and specimens that interweave into Black history (Syperek et. al, 2020). Thus, whilst some museum exhibitions still have colonial overtones, they seem to be shifting towards criticising the colonial history of natural history institutions and emphasising the stories that were previously not told.

Science, and by extension museums as a hub for science, aims to **order a non-ordered nature** for human comprehension. There is a clear narrative that NHMs are used to catalogue nature, presenting it in an easily digestible manner. Hence, there is a mastery over nature to promote scientific understanding. At the exhibition scale, Jørgensen (2022, pp. 376-377) notes three different ways in which museums order nature: taxonomic ordering, geographic ordering and functional ordering. An example for taxonomic ordering is the Biodiversity Hall in the American Museum of Natural History (American NHM) which holds a "Spectrum of Life" display where a whole wall displays 1500 specimens, first categorised into the different kingdoms, then branching off into phylums, then into classes of animals. Geographic ordering refers to ordering nature to what ecosystem or location they have in common. For instance, the American NHM has a Hall of New York State Environment and a Hall of Ocean Life (Jørgensen, 2022, p.376-377; Wilson, 2019), whereby specimens that can be found in these environments are presented. Functional ordering is categorising animals in similar properties they share. The Horniman Museum and Gardens in England groups winged species into the same exhibition, and the Naturhistoriska Riksmuseet in Stockholm have an exhibition dedicated to extinct species (Jørgensen, 2022, p.377). Jørgensen (2022, p.379) argues that the functional ordering of extinct species creates cohesion and allows the visitor to understand the scale of the issue at hand. This ordering is also seen on a smaller scale - ordering within a diorama. Haraway (1984, pp.24-25) notes that in the American NHM, groups of animals in dioramas have an organic hierarchy to them, in

which a large male, one or two females and a baby animal is present. In doing this, the display transforms the idea of development into a singular image. It also highlights that species are part of a dynamic whole that consists of male, female, child. It does not integrate "an aged or deformed beast" (Haraway, 1984, p.24), and thus a certain narrative of a dynamic organic hierarchy is established. Alternatively, the abundance of populations of a species can be ordered through the use of space and proximity. Curators place specimens far apart from each other to indicate the scarcity of a population in a certain region and in doing this, communicate a truth about biodiversity and abundance in a specific region (Asma, 2001, p.176). To order, classify, or map nature in a certain way is a biopolitical mechanism (Rutherford, 2011).

Taxidermy is a method of killing that is accepted by spectators, as a way to further knowledge on natural history (Rutherford, 2011). Thus, **displaying dead animals is justified for gaining knowledge**. A certain narrative of what the animal portrays is governed by the sculptor's vision (Haraway, 1984, p.24). There is this contradiction that killing for science can help promote environmental knowledge and to this extent, avoid biodiversity loss and extinction (Rutherford, 2011). Additionally, spectators accept this because it is only through the death of these specimens and their representations that visitors can see them. It fulfils a desire to see a species with an essence of life and thus it is biopolitical (Rutherford, 2011, p.21).

Harmony Archetype. In terms of the harmony archetype, **nature is presented to be pure and ethereal.** Rutherford (2011) suggests that nature is presented as a spiritual rejuvenation through the use of dim lights and quotes from well-known environmentalists. This beauty of nature has also been observed in the Dinosaur Hall at the Natural History Museum of Los Angeles County, in that the natural light adds to the spectacle of the dinosaur exhibition (Farke, 2012). Many dioramas have also been analysed in showing a pristine,

untouched nature and thus, conveying the beauty of nature that often cannot be seen in reality by visitors (Wilson, 2019). By highlighting the beauty, visitors would have an emotional response and gather an appreciation for nature (Wilson, 2019). That being said, nature that is presented to be 'untouched' romanticises reality. This harmony archetype can be wrong to present if it does not acknowledge that encounters with nature are not always harmonious.

Otherness-Interconnection Archetype

Otherness Archetype. The idea that **nature and culture are justified by the white colonial body** also links to otherness as some museums strive to create an idea of modernity that dichotomizes itself from other views of modernity (Fajri, 2023). This is partly done through its focus on eurocentrism. Modernity is imposed as one of western ideology, discriminating against and devaluing non-western ideas of modernity. These non-western ideas are considered, in the view of modernity, as backward (Fajri, 2023). This, for example, can be seen in the way that western collectors and figures are glamorised in NHMs whilst other cultures are misrepresented as "uncivilised". Now removed as of 2022 (Treisman, 2022), the American NHM used to have a statue of Theodore Roosevelt mounted on a horse, represented as "a father and protector between two "primitive" men, an Indigenous American and an African, both standing and dressed as "savages"" (Haraway, 1984, p.21). The misrepresentations of non-western bodies and nature in NHMs demonstrate the colonial narrative projected onto visitors.

Interconnection Archetype. Some museums are putting emphasis on the **human impact and urgency of the climate crisis and environmental crises**. This relates to the interconnection archetype as it highlights how human activity impacts natural ecosystems and environments. For example, the 'We are Nature' exhibition in Carnegie NHM focuses on the

anthropocene and how five human-altered consequences (pollution, extinction, postnatural, climate change, habitat alteration) impacts the Earth's systems, including human societies (Oliveira et. al, 2020).

Oliveira et. al (2020) argues that there is **no clear separation between humans and nature**, as the Carnegie NHM includes a human diorama, making the visitor the object to indicate how everyday human activity also fits into the notion of nature. Additionally the Carnegie NHM also conveys the fact that humans are nature through an interactive map in which visitors touch what they believe to be nature, until the whole map is lit up including urban areas (Kiefer, 2021).

Exploitation-Idealism Archetype

Exploitation Archetype. Human impact and urgency of a climate and ecological crisis clearly adheres to the exploitation archetype as it highlights how human activity has exploited the nature surrounding us. Textual displays at the Smithsonian's National Natural History Museum allude to human exploitation of natural resources (Johns, 2024). For instance, in the deep time hall, a text writes "Many species have gone extinct in the last 40,000 years…Scientists see a clear pattern: many large land animals went extinct after modern humans arrived" (Johns, 2024). Wade (2022) also summarises various exhibitions that focus on the exploitation of human activity and how it impacts nature. Exhibitions such as 'Extinction Voices' in Bristol Museum and Art Gallery and 'Your Last Chance to See?' in Powell-Cotton Museum in Kent are examples of presenting how human activity has impacted species loss (Wade, 2022).

Idealism Archetype. Visitors are encouraged to take personal action and therefore, **the power of human action** centres the narrative of the museum. The introductory film in the Hall of Biodiversity in the American NHM asserts that the solutions to the climate and ecological crises are clear and that human action is all that is needed (Rutherford, 2011), revealing the solutions in the 'Solutions' exhibit (Rutherford, 2011, pp.33-34). The second floor of the Grande Galerie de l'évolution in Paris showcases how humans are destructive to the earth, for example through images of factory-farm abuse. These strong images are aimed to promote sentiments of responsibility, guilt and compassion (Asma, 2001, p.172) to promote action. The Carnegie NHM's 'We are Nature' exhibition ends with a processing and action section, in which visitors reflect on their activities through various processes like drawing, meditation, writing poems, signing pledges or gathering links of local environmental groups (Oliveira et al., 2020; Kiefer, 2021). Citizen science programs are also displayed, so that visitors are informed on how to get involved (Kiefer, 2021). NHM London also uses Hope the Blue Whale to depict that human action is valuable and has impact, as blue whales were near extinction but were saved by the suspension of whaling due to international cooperation (Syperek et. al, 2020). However, some museums see a lack of examples of the impact of human action or of a call for human action. For example, Johns (2024) writes that in the Smithsonian's National Museum of Natural History, very little suggestions on changes on both an individual and a collective level are present.

Table 1 depicts how the narratives fit into the archetypes, as explained above.

Table 1

Narratives within Archetypes in Literature

Archetype	Narrative
Mastery	Nature and culture are justified by the white, colonial body
	Ordering non-ordered nature
	Displaying dead animals is justified for knowledge
Harmony	Nature is pure and ethereal
Otherness	Nature and culture are justified by the white, colonial body
Interconnection	Human impact and urgency of climate and ecological crisis
	No clear separation between nature and humans
Exploitation	Human impact and urgency of climate and ecological crisis
Idealism	Power of human action

Strategies for Intervention

Wade (2022) highlights how **mascots** are used to symbolise a message. NHM London created the mascot of Hope the Blue Whale in order to create a symbol of the power of human action (Wade, 2022; Syperek et. al, 2020).

Similarly, **anthropomorphism** is a tool that is used in museums. Curators at NHM London have discussed the benefits and limitations in using anthropomorphism as a tool. They argue that although this technique can deceptively humanise animals, it's a useful method in explaining the complexity of nature, especially to children (Syperek et. al, 2020). Furthermore, they suggest that there are behaviours and cultures that are present in a variety of species, including humans, and therefore anthropomorphism allows for finding the commonalities between species (Syperek et. al, 2020).

Elements of **gamification** are exhibited, for example the interactive map (Kiefer, 2021). In general there seems to be a focus on various multi-medias to draw the attention of

the visitors. Examples include the use of **film and videos** to explain or present ideas of nature, for example an introductory 10 minute film on biodiversity at the American NHM (Rutherford, 2011, p.17) or through two videos of habitat alteration at the Carnegie NHM (Oliveira et. al, 2020). Moreover, **participatory art** such as the Post-it Wall at the Carnegie NHM (Oliveira et. al, 2020; Kiefer, 2021) allow the visitor to reflect on their actions whilst participating in artwork.

The **spatial design** of exhibitions and displays help convey a certain narrative. For instance, the numerous small rooms in the exhibition on human impacts at the Valais Nature Museum in Switzerland indicate the multitude of impacts humans have (Oliveira et. al, 2020). Additionally, the Carnegie NHM's human diorama adds to the narrative of the blurred lines between humans and nature (Oliveira et. al, 2020).

The **holistic structure of the museum** seems to be clear for many of the museums. It can be structured through taxonomic, geographical or functioning ordering of specimens (Jørgensen, 2022, pp.376-379), or through a recurring theme such as consequences of human activity in the Carnegie NHM or through questions regarding the Anthropocene in the Valais Nature Museum (Oliveira et. al, 2020). This allows visitors to make sense of the purpose of the museum, and to understand nature through this structuring.

Authorities

One authority that is present within literature are **natural scientists and curators** that work in the museum, both of whom have scientific authority. Oftentimes, museums are considered to be one of the "most trusted cultural institutions" (Kiefer, 2021) because it is assumed that they provide unbiased scientific truths (Keifer, 2021; Rutherford, 2011, p.27). Therefore, they hold power in their ability to share scientific knowledge to the public through the perception that they are impartial bodies of science. Recently, some scientific authorities at museums

also take a more reflexive stance on the neutrality of science, and use their self-critique to encourage listening to scientific authority. For example, scientific authorities in the Carnegie NHM question the colonial and racist implications of some of their displays and actively acknowledge the problematic histories and offer a new framing of these displays (Kiefer, 2021). This shift towards reflexivity of scientific authorities does not take away from the legitimacy of science, and rather supports it. This is because by acknowledging that scientific authorities are non-neutral political actors and positioning themselves with a certain political value, they dilute the tension between the idea of 'expert' and 'the public' (Kiefer, 2021), making them more trust-worthy authorities.

By accepting that natural science has limitations, scientific authorities like curators support the integration of non-scientific authorities into their work. **Artists** have been noted to be critical actors in disseminating knowledge (Kiefer, 2021; Syperek et. al, 2020). Their role allows visitors to process information in a different form, and to reveal aspects that science cannot. For example, an artist at NHM London creates work on the behind-the-scenes of the museum that would otherwise be inaccessible for the visitors to see (Syperek et. al, 2020).

Within the space of a museum, the **taxidermist** is also an authority. The way in which they position the animal is a choice (Jørgensen, 2022, p.373). For example, the Muséum national d'Histoire naturelle in Paris portrays the bluebuck as regal whilst the bluebuck in Naturhistoriska Riksmuseet in Stockholm and in Naturalis Biodiversity Centre in Leiden are depicted as frail (Jørgensen, 2022, p.383). Therefore, taxidermists are an authority that impose knowledge onto the visitor through the way they sculpt the taxidermied specimen.

The **media** is also an actor that holds power, as curators have expressed that changes in exhibitions are partly driven by what is in the public periphery due to the media. The

implementation of Hope the Blue Whale was in parts instigated by the fact that 'Blue Planet II', the British Broadcasting Corporation (BBC) series narrated by famed natural historian Sir David Attenborough was in the works (Syperek et. al, 2020).

Modes of Subjectification

The subjects created by many of the museums are that of environmentally conscious citizens. Subjects are encouraged to change their lifestyle for the sake of the planet (Rutherford, 2011, p.34; Kiefer, 2021; Asma, 2001, p.172; Oliveira et. al, 2020), following the idealism archetype. In addition to being environmentally conscious citizens, many museums also request visitors to become citizen scientists to further data and knowledge on the impact of humans on Earth (Rutherford, 2011, p.34; Kiefer, 2021). Providing solutions reduces feelings of powerlessness or anxiety (McGill et. al, 2024). These self-improvement solutions are focused on consumption patterns and thus have a bourgeois subject in mind (Rutherford, 2011, p.38). What is missing from this solution-oriented subject is that there is no solution on how to make environmental changes on more institutional levels. There lacks solutions on how to push governmental authorities and international corporations that are complicit in the impact that industrial capitalism has on nature, only focusing on the individual actions visitors can take (Rutherford, 2011, pp.34-35).

Results: Case Study of Natuurmuseum Fryslân

Description of Site

The museum is located in Leeuwarden, a city in the province of Fryslân in the Netherlands. It was established in 1923 although since then it has moved locations around Leeuwarden (Natuurmuseum Fryslân, 2023). Currently it resides in a former orphanage, and has been

there since 1987 (Natuurmuseum Fryslân, 2023). When founded in 1923, NF consisted of 150 taxidermied birds, 100 bird skins (un-taxidermied birds) and some mammals (Natuurmuseum Fryslân, 2023). In 2023, 364,083 artefacts were counted. Annually, NF has approximately 55,000 visitors although their one-hundredth anniversary in 2023 saw 80,000 visitors *(Interview)*.

A Walkthrough of Natuurmuseum Fryslân

NF consists of seven permanent exhibitions: the Underwater Safari, the Orphanage School and the Guardian's Room, the Taxidermist's Workspace, Wonderland, the Whale Hall, the story-telling Dragon, Darwin's Attic, and Captain Severein's Living Room. The story-telling dragon is not observed due to its age restriction that does not allow myself as a visitor to enter the tour, as it is aimed for young children.

The Underwater Safari

The underwater safari begins with the visitor being taken to a 'cabin'. A video starts playing on a screen about the importance of water. After the short video ends, lights illuminate onto a display of an above-water landscape that can be seen through the window frame of the cabin *(Figure 1)*.

Figure 1

Above-water landscape

Note. A lake with an icehole, barren trees and a variety of birds (including bird sounds) can be seen in the above-water landscape.

After watching the landscape, a voice then explains that the water safari will begin and covers some rules before a door opens, leading the visitor downstairs. It is immediately evident that the visitor is underground, as foxes and moles are placed within the soil-like walls. A staff member is waiting by the vehicle similar to a rollercoaster. Once on, the visitor is first brought to various freshwater bodies in the Netherlands - for example the very same lake that was seen above ground can be seen below ground, and the water of Dutch canals can also be observed. Various species and objects can be seen and are also paired with sound *(Figure 2)*. The vehicle stops in front of a closed gate, and a voice begins to explain the migration patterns of fish in the Wadden Sea, and species that can be found there. The Wadden Sea is a UNESCO World Heritage Site that extends through the Netherlands, Germany and Denmark, supporting many ecosystems and playing a crucial role in bird migration (UNESCO World Heritage Centre, n.d.). After the explanation, the gates open and

the visitor is transported to the Wadden Sea, and species and objects that are common in the Wadden Sea are displayed.

Figure 2

Below-water landscape

After the ride ends, the visitor walks upstairs and a 3D video of one of the Dutch islands, Schiermoonikoog, is played. The film is played behind a wall that has binoculars attached to them. The video simply shows the landscape of Schiermoonikoog, whereby the ferry that moves between the mainland and the island can be seen, a bird comes into frame, and slowly lightning, rain and thunder begin to appear. As the lightning begins to settle down, the film ends. On the wall opposite the wall of binoculars, there is a poster on how and where various bird species stop to find food in the Wadden Sea area during their migration.

In exiting the safari, a large infographic on water management created by Wetterskip Fryslân, a government institution that manages water in Fryslân, is shown *(Figure 3)*. The infographic supplies statistics mainly on what Wetterskip Fryslân has achieved. This includes how faeces are used for energy, and how their purification system allows Frisians to swim in the water. They also provide facts surrounding water management, such as the issues that

arise when pouring oil into sinks or toilets. There are some imperatives, telling the visitor what they should or shouldn't do. For example, on the lid of a toilet seat, it writes "Do not flush strands of hair down the toilet"[1] and continues to explain why. This infographic is placed in the entrance/exit of the safari so it allows visitors to either read before going into the Safari or for visitors to look at it after their journey 'underwater'.

Figure 3

Wetterskip's Water Management Infographic

Next to the infographic, there is also an interactive screen that provides an encyclopaedia of all the species and objects that could be seen during the underwater safari, and of maps of past and present Frisian water.

The Orphanage School and Guardian's Room

This exhibition preserves the building's history through the display of the orphanage school and of the guardian's room.

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[1]"Spoel geen plukken haar door de WC!"

The classroom consists of tables and chairs, a TV and elements of nature such as a chalkboard with a bee drawing, specimens kept in jars, a whale picture, and a crocodile skull *(Figure 4)*.

Figure 4

The Orphanage Classroom

Note. The TV is placed in front of the tables and chairs, urging visitors to sit on the chair and face the TV. A film about a girl in the present time who travels back to the time where it was an orphanage is played. There are elements of nature around the classroom.

Next to the orphanage school, there lies a guardian's room. The room cannot be entered however the visitor can see a large table with seats, with flower and candle centrepieces. This room gives a sophisticated exclusive ambience. An explanation with photos is presented to the visitor in front of the dining table display. It explains that the building was an orphanage until 1953. The guardian's room was where the directors of the orphanage would meet. It further explains that the children were often called "the blue

orphans"[2] due to their blue uniforms. In relation to the NHM, it highlights that there is a coincidence in that "the blue orphans" are also a type of butterfly.

The Taxidermist's Workshop

The taxidermist's workshop is a space in which theoretically visitors can see the taxidermists' work and ask questions *(Figure 5)*. Various unfinished taxidermied animals are presented on shelves around the room. The numerous species, stances and needles highlight the malleable nature of taxidermy and the ability to understand it as a 'skill' rather than accepting the display of the taxidermied animal.

In the two visits conducted for research, I was not able to speak to any taxidermists as they were not by the open counter. This ability to speak to a taxidermist specialist is dependent on their availability, leaving some visitors to ask questions and to interact with them and others, to only be able to look at the unfinished 'work'.

Figure 5

The Taxidermist's Workshop

Note. The room has an open counter where the taxidermist can interact with visitors and also a background that is not accessible to the visitor.

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[2] "de blauwe wezen"

The Whale Hall

The whale hall is located on the first floor. As the visitor walks up the stairs and enters the whale hall, their eyes are immediately drawn to the whale skeleton that hangs in the centre of the hall *(Figure 6)*. On the path towards seeing the large skeleton up close, the visitor is distracted by various other sites. First, an interactive 'menu'. This 'menu' shows what different marine mammals eat, by the visitor pressing the button of the species of their interest, and an image of their food lights up. On a display next to the 'menu', are tiles with drawings of mythical creatures such as a unicorn. It explains that these mythical creatures were a misunderstanding of real species, for example a narwal was often mistaken to be a unicorn.

As the visitor continues to walk towards the focal point that is the whale skeleton, they reach another interactive panel, where the 'passport' of various whale species can be discovered. This includes basic information of a species of whale, and the ability to push a button that lights up a light on the ceiling beside a skeleton. Each whale 'passport' corresponds to a skeleton hanging above. All the skeletons have been collected in Fryslân. The large skeleton in the middle also corresponds to one of the whales in the interactive panel.

Nearby, another interactive activity is placed. The visitor stands on a mark that faces a screen. On the screen, a skeleton of a whale is shattered and the visitor is expected to rebuild a full skeleton by using their hands (movement of arms are sensored). The visitor clenches their fists when grabbing and moving a piece of skeleton and releases the fist to release the skeleton piece. During the second visit, this activity seemed to be popular amongst children.

As the visitor reverts their eyes to the large skeleton in the centre, they realise that there is also another part of a skeleton on the ground below. In reading the description, the visitor understands that this is the jaw of a blue whale. The sheer size of the jaw being as large as the centred skeleton above indicates how big blue whales are.

The visitor then moves onto a comic book of Moby Dick, where they can flip through a story on a colonial expedition in which whale hunting is also practised. Next to the comic book, a Hollywood film with a scene where the characters are fighting a whale is playing. Next to that, there is another interactive activity to learn about the anatomy of the whale. Visitors can press a button of a certain body part that is written, and in doing so, a light appears on a drawing of a whale on the body part that it corresponds to. During my second visit, a boy yelled "what is it, what is it?"[3] to his father when running up to this interactive activity. Next, a display on seals can be seen.

The exhibition dedicates one corner specifically to the displays on whaling. The text describes how whales were caught "in the past" and ends the text by writing: "It was a battle to the death, in which, in addition to the whale, many hunters also lost their lives."[4]. In drawers that can be pulled open, newspaper articles of modern whaling can be read. These newspaper articles date to 2014, in which Japanese industrial whaling practices are exemplified in the media. Beside this, there lies a box with curtains, in which the visitor can stick their head into and look around the box. The box consists of drawings from historical whaling.

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[3] "Wat is het, wat is het?"
[4] "Het was een strijd op leven en dood, waarbij behalve de walvis, ook menige jagers het leven verloren"

Figure 6

Central whale at whale hall

Captain Severein's Living Room

As the visitor enters the hallway towards Captain Severein's room, heads of animals are pinned to the wall. This creates an understanding that the visitor is entering someone's 'house', the taxidermied heads reminiscent of the association with hunter cabins. As the visitor reaches the end of the corridor, a voice starts to speak and the visitor is standing in front of a 'living room' where a fireplace is in the centre, and a man in a rocking chair faces the fireplace, his head not facing the audience. The face then appears above the fireplace, as though it is a mirror reflection of the man on the chair. He tells a story of his travels, with quips from a voice representing a taxidermied parrot that is positioned in a cage on the left corner. A text lies on the table separating the visitor from the captain, explaining the story of his travels further.

After the Captain finishes talking, the visitor is expected to continue to the rest of the living room *(Figure 7)*. In continuing with the storytelling of Captain Severein, cards with

remarks from the captain are placed next to some of the specimens or artefacts. This way, it feels as though the captain is 'walking with' the visitor. For instance, one of the remarks included "Yes it sings so beautifully but always so early in the morning! You would have put it down too, let's face it"[5] referring to a Chinese nightingale.

Figure 7

Captain Severein's Living Room

Note. Captain Severein's Living Room is an open space with various glass cabinets. Various species as well as cultural artefacts are in these cabinets. They are all artefacts that are not locally found.

At the end of the living room, there lays a sofa with a taxidermied cat attached to it, positioned as though curled up and sleeping on the couch *(Figure 8)*. A table with a magnifier glass and map is also placed close to the couch. Photos of the captain are hung on the wall.

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[5] "Ja, zingt prachtig, maar altijd zo vroeg in de ochtend! Jij zou 'em ook opgezet hebben, zeg nou zelf"

Figure 8

Taxidermied Cat in Captain Severein's Living Room

Wonderland

The wonderland exhibition is overwhelming. Visitors are exposed to various topics within a short distance. This exhibition utilises the most sensory interaction and gamification tools.

The exhibition begins with a display in which various species are given 'awards' for a physical attribute or skill. The next display is on animal faeces. The visitor can enter a 'bathroom' where in each toilet bowl, a specific animal's faeces can be observed. On the lid of the toilet, the common name of the species and facts about its faeces are written. Humorously, very small toilets are placed to show the faeces of very small species.

Adjacent to the faeces display is a display on albino animals. Next to that, a beehive structure that visitors can enter into is presented, to provide knowledge on the bees *(Figure 9)*. Little written information is given on bees, and is only concentrated in one area of the display, titled "Did you know?"[6].

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[6] "Wist je dat?"

Figure 9

Beehive Display

Note. Inside, the visitor can see what the tools and attire used for beekeeping are, as well as showing a case of various bee species.

Next to the beehive, various shells are displayed on a spiral structure, resembling the spiral composition of some shells. Beside that, there is a display of eggs, as well as a display on smells. Visitors can smell the scent of various natural things, from faeces to cloves.

Next, there lies a 'dentist' office in which visitors can enter and sit on the dentist chair to play a game of 'true or false' regarding species teeth *(Figure 10)*. There is also a drawer that the visitor can open, with the first drawer showing dog teeth and medicine, the second drawer regarding different tools used for dentistry, and the third drawer showcasing different animal teeth.

Figure 10

Dentist's Office

After this display, the visitor moves to another room which is a continuation of the wonderland exhibition. Here, the visitor can play a game where they pretend to be a bird and find a good resting spot, learn about mating rituals in the animal world, look at a statue to commemorate the importance of woodlice in disseminating garbage, read about a famous Frisian bird identification book called "Seeing is Knowing"[7], learn about seeds, play a game about identifying birds whilst sitting on a swing attached to a tree, and looking at species from the palaeolithic age in a cave structure.

Darwin's Attic

Darwin's Attic is situated on the top floor of the museum. When first arriving up, an explanation is given saying that Darwin is not the only person responsible for classifying animals. Other scientists or philosophers include Aristotle, Lamarck and Linnaeus. Next to

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[7] "Zien is Kennen"

this description, a video of people dressed up as these characters is played, in which they are in a gameshow-like setting, with a presenter asking questions, and the guests giving answers back. When one of the guests are talking about a particular species, a light pops up onto the taxidermied animal that the guest refers to. Afterwards, the visitor enters the space that looks like an attic - wooden planks and dark ambience *(Figure 11)*. An animation on natural selection is shown through the personification of a fox and them eating hedgehogs. There is also a game in which visitors are asked to become a bird to catch butterflies, as a means to explain pollution impacts on adaptations. Next to that, there is a chalkboard that explains how a brown bear becomes a polar bear, explaining geographical isolation in simple terms. There is also a diorama that shows a taxidermied mouse holding a "HELP" sign whilst a taxidermied fox is directed to face the mouse. This displays a story of the prey-predator relationship. The visitor then exits the attic atmosphere and can enter secluded boxes that teach the visitors about different epochs. Additionally, there is a display that explains the difference between the survival of the fittest and the 'right of the strongest', showing the dangerous sentiments of Dutch Nazi propaganda posters behind a cage. Next to this cage, an interactive game can be played in which visitors can press various characteristics to create a certain species.

Figure 11

Darwin's Attic

Note. There are random taxidermied animals scattered across the whole attic, as well as seemingly random facts that have little elaboration.

Discussion: Analysis of Case Study

The observations during the museum visits can be contextualised through the theoretical framework *(see Theoretical framework under Methodology).*

Narratives

Mastery-Harmony Archetype

  Mastery Archetype. At NF, the notion of mastery through science is prevalent. **Displaying dead animals is justified for knowledge,** similar to what Rutherford (2011) and Haraway (1984) have noticed in their research. A difference, however, from both Rutherford and Haraway's analysis is that NF does not kill animals for science. Animals are donated and they follow ethical procedures (such as they are not hunted and then donated), the

interviewee explained. However, this mastery over nature is still depicted through the role of the taxidermist, as they can still manipulate the image of the animal. It is especially accentuated in NF, as the taxidermist's workshop creates a space in which the visitor learns that these animals are shaped to portray a certain image. In this way, this mastery is transparent to the visitor, reinforcing this narrative that mastery over nature through science is accepted. Additionally, the interviewee highlights how taxidermied animals help tell a story, and that the use of taxidermied animals allow visitors to further understand how an animal looks and thus stimulate further curiosity especially in young visitors, such as children asking "how [do] they eat…or how does the animal poo?" *(Interview)*. Therefore, taxidermied animals and the taxidermist's workshop establishes a clear mastery over nature, in the process of helping young visitors to learn about and be inquisitive over nature.

Another element of mastery is the **ordering of non-ordered nature**, which was also seen by Jørgensen (2022), Wilson (2019), Haraway (1984), Asma (2001) and Rutherford (2011). For example, the title of the bird identification book "Seeing is Knowing" already highlights how knowing can only be accepted through scientific classification of birds. This ordering of nature also occurs through the placement of specimens. In Captain Severein's living room, most specimens are in glass shelves, separating nature from humans. However, a taxidermied cat lies in the open, not barred by a glass encasing. Therefore, nature is ordered into western ideas of domesticated versus non-domesticated animals. The visitors understand that animals behind the glass are dead and are to be looked at, and whilst the visitors know that the cat is also dead, they participate in this theatre of the exhibition as they accept that it is supposed to be alive. Notably, NF also does not often connect individual species in relation to other species. The multispecies world that we live in (Tsing, 2015, p.22) is not present in NF. Therefore, the ordering of nature imposed by humans reduces species into categories for science and to establish the hierarchy of nature in relation to humans.

Captain Severein's living room is a site that has overtones of the idea that **nature and culture are justified by the white, colonial body**, congruent with the observations of Rutherford (2011), Strasser (2012), and Wilson (2019). Illustrating specimens from other countries through the story of Captain Severein's adventures around the world justifies humans' mastery over nature through colonial expeditions. This mastery is not just over nature, but also signifies the power of the white colonial body over the nonwhite, colonised body. This room presents the notion that stealing is accepted and celebrated for the sake of colonial expeditions. This is also seen in the Moby Dick comic in the whale hall, in which the story follows a colonial expedition. Although the comic does problematize the leader, there are aspects of the comic that reinforces colonial sentiment. For example, the colonial crew yelling "run or they're going to eat us" when encountering a non-western crew and the caricaturization of non-white characters upholds racist attitudes. Newspaper articles framed in NF of modern whale hunting problematizes the killing of whales. However, all the articles are of Japanese whale hunting practices. Whilst Japan does partake in commercial whaling, the lack of newspaper articles on other countries that have been involved in commercial whaling, such as Norway and Iceland (International Whaling Commission, 2024), questions the narratives on which group of people are scrutinised by NF or the media to participate in whaling. Overall, there does seem to be a narrative in that the white body has reason to yield mastery over nature as compared to their nonwhite counterparts.

The comments of the captain on the specimens such as of shooting a bird, as well as the comment of 'battle to the death' between whales and humans highlights the mastery of humans over nature as it accepts reason to assert violence onto an animal for their own desires. This **acceptance of violence of humans towards animals** contradicts other displays in which violence is omitted for the sake of young visitors. For example, in Darwin's attic, a video on natural selection in which the fox hunts hedgehogs is presented in a very

non-violent manner. The fox picks up the hedgehogs in a basket and when eating the hedgehog, only noises of eating are heard and the act of 'eating' is not seen. This assumes that the act of a fox killing and eating a hedgehog is too violent for children to watch. Therefore, the contradiction lies in that animals killing animals is assumed to be violent and therefore not shown, whilst humans killing animals are non-violent and can be displayed.

Thus mastery over nature is displayed in NF through justifications of gaining scientific knowledge and curiosity, especially via the white colonial body, which in turn presents a perception of who can assert violence. Although there is a narrative of mastery over nature, a narrative of harmony with nature is also displayed. However, it is scarce.

Harmony Archetype. For instance, in the water safari, a scuba diver can be seen searching a shipwreck. This is an acknowledgement that humans do interact in water ecosystems. However, the scuba diver is still exploring a shipwreck and thus connotes that even in its interaction in nature, humans are presented to be involved with nature for scientific purposes. Additionally, a rather humorous depiction of a man defecating in the water from his boat suggests how humans live alongside other species. In the water safari, this shows **an acknowledgement that humans and non-humans co-exist**, and harmonically live side-by-side. Arguably, harmony is reduced to a view that it is only through scientific value in which harmony occurs or this depiction of harmony is only a method in which it engages the visitor to laugh or to be amused.

Otherness-Interconnection Archetype

Otherness Archetype. The narrative that **nature and culture are justified by the white, colonial body** also falls under the otherness archetype. By asserting the dominance of

the white, colonial body, it others nature and non-western culture. In Captain Severein's living room, it feels as though the visitor, alongside the character of the captain, are objectifying non-western nature and cultures as something 'exotic'. This is done through the storyline of the Captain's expedition itself. The captain being Frisian builds a connection with the local visitor, however this is contrasted with the non-western culture and nature presented in glass cabinets in this character's 'living room' and displayed to adhere to the captain's expedition 'success'. Otherness is established by making the captain and the local visitors relate through their Frisian heritage and by viewing these non-western artefacts as trophies.

The **acceptance of violence of humans towards animals** that is accentuated in the Captain's comments, also others nature. It assumes that animals are dispensable and that violence towards animals follows a different ethical principle than violence towards humans. Thus, it creates a dichotomy between humans and non-humans.

Interconnection Archetype. Interconnectedness is seen through the **connection between culture and nature**. Frisian culture is emphasised throughout NF, and highlights how culture is intrinsically linked with nature. For instance, the introduction video on water at the water safari shows videos from the elfstedentocht, a Frisian ice-skating competition on the canals during winter. By showing the elfstedentocht as an element related to water, viewers are able to understand the importance of water in promoting culture. Additionally, the 3D film of Schiermonnikoog highlights a sense of serenity and through showing a landscape familiar for many, connecting the visitor to nature. This is supported by the interviewee, whereby they state that "we are living in Fryslân, so I think it's good when you give more importance, more involvement and more knowledge about what you see around you" *(Interview)*. By promoting Frisian culture and identity, NF is able to convey local knowledge on nature and to encourage visitors to think about the nature that surrounds them.

Aside from Frisian culture, there is also an **interrelation between the orphanage school and nature.** The history of the orphanage is presented through the lens of nature as the classroom includes nature-based images and objects. The orphanage is emphasised within the museum because NF deems it important to "tell the story of the building as well" *(Interview),* especially as an old building in the city centre that has cultural importance in Leeuwarden. This acknowledgement and reflection on the building's past as a regional monument fits very well with reflecting on and learning about local nature as part of one's culture and heritage. The display of the classroom allows the opportunity to preserve the building's history whilst simultaneously exerting knowledge on nature, through the specimens cabinet in the room or the various drawings of nature.

Interconnection is also intertwined in the **acknowledgement that humans and non-humans co-exist.** Whilst this acknowledgement under the harmony archetype relates to humans and non-humans part of the same ecosystem, the interconnection archetype focuses more on the acknowledgement of the direct interaction between nature and humans. For example, at the seed display in wonderland exhibition, muddy shoes are displayed, with the explanation that humans are seed dispersers through seeds sticking to the sole of their shoes.

Exploitation-Idealism Archetype

Exploitation Archetype. The **human impact** on nature is presented predominantly in the water safari and the whale hall. The water safari shows oil rigs in the Wadden Sea, old rusty bikes and broken cars in the canals, and seagulls killed by plastic accumulation. The exploitation of nature in the water safari is focused on the Dutch context. The whale hall focuses on whaling as a form of exploitation on animals. It refers to both the historical whaling practices in the Netherlands and the modern commercial whaling practices,

demonstrating the duration in which exploitation of the whale has been ongoing. NF does not focus on the urgency of ecological crises, unlike the literature.

Idealism Archetype. There are very few notions of idealism present in NF. The only space in which hints of idealism is put forth is Wetterskip Fryslân's infographic on water and purification. **Small human behaviour changes** such as not throwing hair down the toilet are requested, but a real instigation for change is not featured.

As seen, some of these narratives fit into more than one archetype and therefore, Table 2 condenses the various narratives in how they fit into each archetype.

Table 2

Narratives within Archetypes in NF

Archetype	Narrative
Mastery	Displaying dead animals is justified for knowledge
	Ordering non-ordered nature
	Nature and culture are justified by the white, colonial body
	Acceptance of violence of humans towards animals
Harmony	Acknowledgement that humans and non-humans co-exist
Otherness	Nature and culture are justified by the white, colonial body
	Acceptance of violence of humans towards animals
Interconnection	Connection between culture and nature
	Interrelation between orphanage school and nature
	Acknowledgement that humans and non-humans co-exist
Exploitation	Human impact (lacking urgency)
Idealism	Small human behaviour changes

Strategies for Intervention

In order to portray these narratives outlined, NF utilises various methods. **Gamification** as a tool is largely present, as knowledge is imparted through games and interactive boards. This is especially seen in the water safari, in that the structure of the safari mirrors a rollercoaster ride, allowing visitors to immerse themselves into fresh and saltwater of the Netherlands. Other interactive games in the other exhibitions require visitors to imagine themselves to become another species. For example, in the wonderland exhibition, a contraption where visitors can 'fly' like a bird and find a resting place can be played, or in Darwin's attic, the visitor can become a bird to catch butterflies. Gamification is used to allow the visitor to imagine themselves as part of an ecosystem or as another species in order to gain knowledge.

Humour is also a tool used to spark interest in the spectators. The humour is predominantly sophomoric, which aligns with the target audience of children. The man defecating in the water safari, the display on various faeces of animals, and the comment of "not my measurement"[8] on a penis protector in Captain Severein's room are all examples of where this sophomoric humour is noticeable. Humour is also used in the game-show video in Darwin's attic. This humour allows visitors to discern the different ecological theories and classifications in what would have otherwise been an array of complex thoughts to explain.

Another strategy for intervention that is used is **anthropomorphism**. Certain displays translate nature into human understanding and culture in order to facilitate easier learning. This is mostly seen in the wonderland exhibition and the whale hall. The award display that gives medals to species, animal faeces in human toilets, the dentist practice exhibition to explain animal teeth, 'passports' of whales, menus for marine mammals are all examples of how nature is moulded to fit visitor's comprehension of the (human) world around them.

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[8] "Niet mijn maat"

Especially for young visitors, translating nature to human culture allows them to learn about nature through framings they already understand (Syperek et. al, 2020).

In terms of space, NF creates **structures that resemble the nature** that the display explains, especially in the wonderland exhibition. For example, in showcasing shells, the shells are placed in a spiral construction, mimicking the spiral configuration of some shells. The space to provide knowledge of bees requires the visitor to enter a beehive. These nature resembling constructions make the displays more interesting to look at, and help gain the attention of the spectator. Despite displays having a clear structural creation, there is **no coherent holistic structure** of the route between the exhibitions and of the different floors. The names and structure of some of the exhibitions such as Darwin's Attic, the Whale Hall, and the Captain's Living Room perhaps create an idea that the museum is structured as though it is a house, however the other exhibitions don't fit into this framework. The interviewee also acknowledges this and although is not sure on the rationale behind the space, believes that previous curators and museum employees were thinking about what they wanted to show and were merely looking for a space to put it in. As a future project, the interviewee considered perhaps changing the structure to make the floors represent different altitudes - the ground floor would have the water safari which focuses on aquatic biomes, the first floor would focus on terrestrial biomes and the third floor would focus on birds *(Interview)*.

Authorities

By looking through the museum, the authorities were largely hidden. They were only revealed in two areas around the museum. Firstly, the taxidermist's workshop uncovers the work of the **taxidermist**, allowing spectators to interact and understand the taxidermist as an authority that shapes a narrative of nature. Even spectators that did not have a chance to talk to the taxidermists, like myself, were able to recognise the power that taxidermists hold as

'half-finished' animals lay on the table. At the water safari, names of collaborators were written, mainly **Wetterskip** who provided an infographic, as well as other stakeholders like **Provincie Fryslan, BankGiro Loterij, Mondriaanfonds and various NGOs** who helped finance and support the creation of the water safari.

Other than the taxidermist, and various collaborators for the water safari, authorities were not present in the exhibitions themselves. Thus, the interview helped uncover other authorities involved in the production of knowledge in NF. A **project leader** helps create exhibitions, by looking at what theme is relevant. They are supported by a **team of colleagues**. They also reach out to who they deem **experts** in the topic of the exhibition to provide knowledge. In this way, these experts and the museum employees assert disciplinary power, by experts telling society what the 'truth' is. The **collection centre** is also a relevant actor in creating narratives, as they collect specimens, not only for NF, but for other organisations and projects as well. NF can temporarily borrow their artefacts for relevant exhibitions. **Students** have also collaborated with the project leader to give ideas on how to change or update certain exhibitions. One project by students, for example, was to give a presentation on how to update the water safari, and gave suggestions based on interviews of **local people and children** on how to improve. Additionally, **newspapers and media** were shown during the exhibition, suggesting that they play a role in framing knowledge surrounding nature.

Through observing NF and the interview, various actors in the creation of narratives of nature are exposed. These include people that directly work for NF such as the taxidermist, project leader, and team of colleagues. However, they also include external collaborators like various organisations, experts, the collection centre, students and the media.

Modes of Subjectification

A clear understanding of how subjectification is formed is not strong. The lack of a take-home message makes it difficult to understand what the intended subject NF creates is. The interviewee believes that the messages that NF is currently portraying focuses on "fun facts of nature", the complexity of nature, the beauty of nature and the intellectual yield of nature in that "we can learn so many things" *(Interview)*. By this definition, the subject created does not seem to associate itself with nature, and rather the subject can appreciate its complexity and gain knowledge. This is further supported by the observation of the child asking "what is it?", highlighting the subject's curiosity and desire to learn. But, the museum does not allow the visitor to truly reflect on their role in nature. The subject that is thus created is someone who is simply more knowledgeable on nature through the framings that the authorities impose, especially that of mastery.

The interviewee wants a shift in what subject the museum creates. They highlight that a shift towards action by visitors should be the ideal goal. Visitors should want to preserve Frisian nature after visiting the museum. They emphasise that this call for action must be hopeful. The lack of narratives on exploitation and idealism at the moment indicates why visitors don't leave the museum with this call for action.

Link to Biopower, Green Governmentality and Neoliberalism

Through the archetypal narratives, the modes of intervention, authorities and subjects created, a clear link to biopower and green governmentality can be seen. NF employs ideas of biopower as narratives of natural life are controlled and modified through the authorities and tools of this institution. As a green governmentality, they impart a certain truth and these truths are the narratives described. The predominant truth that they assert is one of human mastery over nature, although narratives of harmony, otherness, interconnection, exploitation

and idealism are present. These narratives are facilitated by the museum employees themselves, such as the project leader or taxidermists, who provide ideas and organise collaborations. External organisations also hold power in creating a certain narrative, as NF relies on their expertise to provide knowledge. Therefore the 'truth' of nature is largely determined by museum curators and managers, and those who they deem as experts on certain topics.

As a relatively new and small museum, neoliberal techniques are utilised as evidently seen through the strategies for intervention. First and foremost, NF has a fee to enter the museum, and thus nature is commodified. NF uses gamification in the majority of exhibitions to translate knowledge on nature into entertainment. Additionally, techniques of humour, anthropomorphism and spatial structures resembling nature all create a museum that is entertaining for children, as much as it is knowledge enriching. Importantly, the interviewee highlights that the method in communication should not be the focus, instead the message should be. Therefore, whilst gamification and other methods of intervention can help support the knowledge given, it should not be the priority when creating an exhibition. One aspect that is not present in NF, but is a neoliberal method in smaller museums, is emphasising social change. This very much links to the narrative of idealism, of which NF is lacking in promoting individual or collective change to fight ecological crises. Making more of an effort to promote change can not only be a way in which the museum can compete in the neoliberal market, but also a way to give hope to the visitors, and thus create action-oriented subjects.

Recommendations

My aim is not to condemn NF - and NHMs in general - as a site of green governmentality, but instead emphasise that museums have an opportunity to create a narrative that focuses on the stories that non-humans *want* to tell and to ensure that human visitors don't undervalue nature, as we enter deeper into environmental destruction. Naturalists and environmental anthropologists have used their words to retain "curiosity, the practice of reading landscape as it is walked, a deep love of the earth and its creatures, and, perhaps above all, the desire to find magic, […] to make it possible to inhabit it with love" (Pratt, 2017, p.172). NHMs, I argue, can do this too.

At the moment, NF can make some changes in order to signify a clear message that is not currently seen. The interviewee concurred and wants to create a red thread[9] - one large narrative that can be seen throughout all the exhibitions. What should this red line be? Because the narratives within the archetype of mastery at NF are overwhelmingly disproportionate compared to the other archetypes, and the narratives with the archetype of idealism are nearly non-existent, my recommendation is to focus on reducing mastery narratives and increasing idealism narratives.

The mastery narrative can be harmful to employ in human's relations with nature, and thus, NF should aim to get rid of these narratives or shift towards acknowledging the mastery at play. I would recommend presenting non-local specimens in methods to decolonise the current Captain Severein exhibition. NF should highlight the atrocities that Dutch colonialism had on nonwestern culture and nature. They can follow suit from Carnegie NHM's change of displays (Kiefer 2021) or NHM London's decolonial tours (Syperek et. al, 2020), and adopt

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[9] "rodelijn"

these as a strategy of intervention. Furthermore, NF, alongside the collection centre, could initiate a program in which research on taxidermied animals and other artefacts are initiated, and if information on the origins is already known, the museum should state the origins in their display. This information should be presented whether it was through colonial expedition, through gift exchange, or as a commodity exchange (Strasser, 2012). This decolonial approach would also get rid of the 'acceptance of human violence on animals' narrative.

In regards to the mastery of dead animals and its use, it would be unrealistic to ask to remove all the taxidermied animals, especially as the interviewee sees value in presenting taxidermied animals as it allows for a close inspection of a species that facilitates learning. Instead, NF could use ideas of "botched taxidermy" (Page, 2023, p.202), a method to repurpose taxidermy to signify something different. In this way, it should allow visitors to reflect on the notion of taxidermy and question themselves about the ethics surrounding it. For instance, Arteaga, a Chilean artist, reimagines dioramas and taxidermied animals by introducing the human interaction that is often invisible in dioramas that usually display serenity in the Potteries Museum in the UK (Page, 2023, p. 213). One of the dioramas that was changed was one of a stag in which the lights that were once used to portray the etherealness of the stag, were detached and hanging off the ceiling, whilst the stag looks startled by it. In doing this, the notion of 'untouched nature' is questioned (Page, 2023, p.214). The idea of taxidermy as a justification for science and the invisibility of the violence behind this is now artistically portrayed and visitors can reflect further on this. Thus, an introduction of artists as an authority could be helpful.

Ordering nature is inevitable at a museum, however I would recommend the scientific authorities to be reflexive on the ordering that they apply.

Additionally, NF should focus on drawing attention to the idealism archetype, making this archetype the red thread. All displays and exhibitions should contribute to a call for action. These actions should be what individuals can do themselves, but also importantly how to advocate and push local, regional, national and international governments and companies to do the same. NF can utilise the strategies for intervention that they already have in place, namely gamification and humour. They can use gamification as a tool to balance the power relations between the visitor and the museum by creating interactive knowledge-sharing displays, and humour to help reduce feelings of anxiety, that McGill et. al (2024) mentioned. They can rely on non-scientific authorities such as artists to help create these interactive displays and to include more multimedia displays that promote reflection, such as participatory art (Oliveira et. al, 2020; Kiefer, 2021). Employees of NF, as well as students, local people and children could all collectively help in understanding how this can best be done.

Therefore, by putting effort in removing the mastery of nature, the visitor would be able to understand and criticise the colonial history of the Netherlands and the past portrayal of nature at NHM. By promoting the idealism archetype, the visitor becomes a subject that respects nature and has motivation to continue to fight for it.

Conclusion

Within the scope of this paper, I explored NHMs as a site of green governmentality, and its relation to biopower. Additionally, I described how the neoliberal landscape influences how NHMs look today. Using two theoretical frameworks, literature on narratives, strategies for intervention, authorities and modes of subjectification in NHMs were presented. This was further explored through the context of NF in Leeuwarden, Netherlands. Through discourse

analysis and an interview, it was found that narratives relating to mastery of (western) humans were dominant, whilst narratives of idealism were minimal. This answers the first sub-question of what narratives are displayed. The strategies for intervention that were present were gamification, humour, anthropomorphism, nature-like structures, and a lack of holistic structure. The authorities were predominantly employees of the museum as well as external authorities including governmental institutions, various organisations, the collection centre, external experts, students, and local people and children. This answers the second sub-question of who aids this power. Currently, the subjects that are created through visiting NF are ones that only gain some knowledge. With the goal to tell stories that do not impose hierarchies between humans themselves and between humans and non-humans, NF could transform aspects of their museum to give back some agency to those that have historically had no voice.

Limitations and Future Research

Being a non-Dutch researcher posed a limitation on my discourse analysis. In texts or audio that was only given in Dutch, I had to rely on a translator. Although this was effective, it may lead to discrepancies in what was being written by the museum, what was being told by the translator and what was being understood by me. Additionally, although Schorch (2015) suggests that narratives understood don't differ amongst visitors, the nature of a singular participant observation poses a risk that my understanding of the narratives present may be different than another visitor, as no concurrence is possible.

For future research, it would be valuable to research more specifically on what decolonisation of NHMs in a Dutch context could look like should be explored. Furthermore, this form of analysis could be utilised to analyse other NHMs around the world, especially of

NHMs from non-western countries or that are not in the metropole, as there is a lack of literature in these places.

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