

Department of Design and Architecture

Master of Design

Nature's Perspective

An Object-Oriented Ontological interpretation of nature in tourism, in
times of Global Warming

Thesis submitted in partial fulfillment of the requirements for the
degree of Master of Design

María Enriqueta Sáenz

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ABSTRACT

This theoretical work presents an object-oriented perspective to nature-based tourism in Iceland with the purpose of bringing about a more sustainable appreciation of nature and the Earth. It discusses tourism as a geophysical force in the Anthropocene, when total global emissions become a critical factor for the outlook of future climate stability. It also discusses the conception and practice of the tourism industry in Iceland, as well as the transformations that nature has undergone under the hand of the industry and society in general. The research also focuses on the concept of hyperobjects, as presented by Timothy Morton¹, as well as on the challenges that tourism faces in an ecology where global warming is changing not only global weather patterns but also the geology of the Earth itself. Finally, the paper focuses on the role of speculative design as the venue to present a more ecological view of the Earth. The research concludes that to achieve this, speculative design could build on the notion of an ecology where the interactions of objects come to rule, eliminating so current social interpretations of a world, nature and environment. The paper concludes that in order to hear what the Earth is trying to tell us, we need to rethink the role of humans on Earth and shift our focus of concerns from the realm of humans to the objects in nature.

¹ Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World*, (Minneapolis: University of Minnesota Press, 2013).

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INTRODUCTION

The worldwide tourism industry has become an economic sector of great importance in our current day and age. In Iceland tourism accounted for 7.1% of GDP in 2014.² However, the rapid growth of inbound tourism in Iceland, which has escalated in terms of visiting tourists to more than three times the country's population in recent years, is raising concerns as to the difficulties of maintaining the qualities of the natural environment and the destinations sought.³

According to Edward H. Huijbens and Martin Gren, the phenomena of tourism has traditionally been conceived and theorized as occurring in society, where tourists exist as social subjects in a social world. They state that tourism scholars today commonly consider tourism studies to be a social science. In tourism studies even concepts like place, space and landscape are theorized as social constructs.⁴ Huijbens and Gren conclude, thereafter, that in order to theoretically recognize the Earth in tourism, an ontological commitment to the Earth is needed.⁵

Considering the increase of fossil fuel based emissions in the atmosphere, their pervasive effect on global climate and the potential repercussion on humans' existence, I agree with Edward H. Huijbens and Martin Gren that it is time to stop conceiving ourselves as individuals at the centre of world, but as earthlings coexisting within humans and non-humans.⁶ Therefore, an object-oriented ontological perspective of tourism is required.⁷

The objective of the thesis is to answer the following question:

- Can the perspective of Object Oriented Ontology (OOO) lead to a more sustainable appreciation of nature in tourism?

² World Travel & Tourism Council, "Travel & Tourism Economic Impact 2015 Iceland," accessed December 15, 2015, <http://www.wttc.org/search-results/>.

³ OECD Environmental Performance Review, "OECD Environmental Performance Reviews: Iceland 2014" (Paris, France: Organisation for Economic Cooperation and Development (OECD), 2014), accessed ??, 2015, <http://search.proquest.com/docview/1566871423/abstract/5A27A122195B4594PQ/3>.

⁴ Martin Gren and Edward H. Huijbens, "Tourism Theory and the Earth," *Annals of Tourism Research* 39, no. 1 (2012): 155.

⁵ *Ibid.*, 163, 166.

⁶ *Ibid.*, 167.

⁷ *Ibid.*, 162– 166.

The aim is to understand how a perspective of OOO and hyperobjects, as described by Timothy Morton⁸ can influence our understanding of nature in tourism. How the notion of hyperobjects, incorporated into speculative design⁹, could influence the way humans coexist with other objects anywhere on Earth, especially in times where global warming forces us to rethink how humans do nature.

The answers to this question could provide a basis for new conceptions of nature-based tourism, challenging old paradigms of human vs. nature, and economic sustainability vs. sustainability of natural resources. It could also broaden the scope of traditionally conceived stakeholders in the nature-based tourism industry, and produce new constellations of participants that include the realm of non- humans, with the purpose of appreciating and understanding what the Earth is trying to tell us.

⁸ Morton, *Hyperobjects*.

⁹ Anthony Dunne and Fiona Raby, *Speculative Everything: Design, Fiction, and Social Dreaming* (Cambridge, Massachusetts; London: The MIT Press, 2013).

TOURISM AS A GEOPHYSICAL FORCE IN THE ANTHROPOCENE

Humankind has always had an impact on Earth, but due to the enormity of the geological time and the changes of the geological past such as massive volcanic eruptions, colliding continents and meteorite strikes, the current interval of human activity was not considered very significant. As it dawned on scientists that the impact of human activity on Earth was comparable to events in the ancient past, and that some of these changes were permanent even in the geological timescales, a new geological era, titled the Anthropocene, has been proposed. The Anthropocene has been coined as the era in which mankind has become co-extensive with the Earth and its geological time-scale.¹⁰

The impact of preindustrial human societies on the environment was mostly local and transitory. These societies lacked the number of people, the social and economic organization, and the technologies to control in great scale the various forces of nature that would ease their tasks of hunting, gathering and farming. Energy was captured from wind, water, plants, animals, and tree stocks.¹¹

One of the most important transformations in the history of humankind and the Earth was the start of industrialization in the 1700s, which by 1850 was beginning to transform the globe. An enormous geophysical transformation from the extraction and use of fossil fuels took off that included coal, oil and gas. It offered access to energy hitherto inconceivable from “*carbon stored from millions of years of photosynthesis.*”¹² It is the period after the onset of the industrial area, between 1800- 1850, that is described as the origins of the Anthropocene. The Anthropocene is, therefore, a period in which humans become a powerful geophysical force on Earth.¹³

¹⁰ Jan Zalasiewicz* et al., “The New World of the Anthropocene,” *Environmental Science & Technology* 44, no. 7 (April 2010): 2228, doi:10.1021/es903118j.

¹¹ Will Steffen, Paul J. Crutzen, and John R. McNeill, “The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?,” *Ambio* 36, no. 8 (December 1, 2007): 614, 616.

¹² *Ibid.*, 616.

¹³ *Ibid.*, 614– 616.

The energy subsidy from fossil fuels has allowed for modern wealth and the growth of the global population from around 1.8 billion to seven billion today. Population growth along with human consumption of resources and energy took off, so to speak, in the post-war years. This sudden acceleration at the end of the Second World War is recognized today as the “*Great Acceleration*”¹⁴ of the Anthropocene co-extensive with the advent of globalization. During the great acceleration period industrialization gathers momentum allowing local economies to become global enterprises and affecting significantly trade, capital and technology. Migration patterns also follow the global trend with automobiles and airplanes transforming mobility of humans on Earth.¹⁵

One indicator that scientist use to track the progression of human imprint in the Anthropocene is the concentration of carbon dioxide in the atmosphere. Scientist have been able to tabulate the quantification of CO₂ in the atmosphere according to the use of fossil fuel-based energy systems over time and have found that the increase of CO₂ in the atmosphere is in proportion to the amount of fossil fuels that have been consumed.¹⁶

In the era of the Anthropocene the significant challenges to natural forces posed by humankind, albeit unevenly, pushes the Earth into an unknown territory. With global warming, there is less biological diversification, less forested ground, much warmer climate, and the weather has become wetter and stormier. But these are only few of the outcomes that we know of today. What will happen to civilization as we know it in times of atmospheric CO₂ concentrations well above measured figures for the last eons?¹⁷

There is a consensus that an atmospheric concentration of CO₂ at 450 ppm would correspond to a global warming of more than 2°C, which could lead to a global warming that could dangerously affect the Earth’s climate system. Some scientists even advocate for lower levels of ppm. This would mean a reduction of global emissions of 50-80% by the year 2050, which means a yearly reduction of CO₂ emission of 3% after 2015. Achieving these targets require not only developments in

¹⁴ Ibid., 614.

¹⁵ Ibid., 616– 618.

¹⁶ Ibid., 614– 618.

¹⁷ Ibid., 614.

infrastructure and technology but also mitigation efforts through a qualitative and quantitative culture at a global scale.¹⁸

Globally tourism emissions today account for 5% of total emissions, with 75% thereof related to mobility. However, with the rapid growth of the industry it has been estimated that these emissions will increase by over 150% by 2035.¹⁹ Tourism also represents the fourth largest economic sector in the world after fuels, chemicals and food. The industry generates around 5% of world's GDP.²⁰ In Iceland, it accounted for 7.1% of GDP in 2014 and it is forecasted to rise by 2.8% before 2025.²¹

According to the United Nations World Tourism Organization (UNWTO), the number of international tourist arrivals is expected to increase, on an average, by 3.3% per year between 2010 and 2030 to an estimated 1.8 billion international arrivals. In addition, estimations indicate that domestic tourism worldwide has accounted for an additional 4.7 billion arrivals in 2010. It is expected, therefore, that sometime in 2015 “*the total number of arrivals by international and domestic overnight visitors will exceed the world's population for the first time.*”²² Following this trend, Iceland has also seen an explosion in the number of international arrivals, which has more than tripled since 2000 with an average yearly growth rate of 9.3% between 2000 and 2014.²³

¹⁸ Ghislain Dubois et al., “The Future Tourism Mobility of the World Population: Emission Growth versus Climate Policy,” *Transportation Research Part A: Policy and Practice* 45, no. 10 (December 2011): 1032, doi:10.1016/j.tra.2009.11.004.

¹⁹ Ibid., 1031.

²⁰ Stefan Gössling, Daniel Scott, and C. Michael Hall, “Challenges of Tourism in a Low-Carbon Economy: Challenges of Tourism in a Low-Carbon Economy,” *Wiley Interdisciplinary Reviews: Climate Change* 4, no. 6 (November 2013): 525, doi:10.1002/wcc.243.

²¹ World Travel & Tourism Council, “Travel & Tourism Economic Impact 2015 Iceland.”

²² Gössling, Scott, and Hall, “Challenges of Tourism in a Low-Carbon Economy,” 525, 526.

²³ “Tourism in Iceland in Figures | Icelandic Tourist Board,” accessed March 11, 2015, <http://www.ferdamalastofa.is/en/research-and-statistics/tourism-in-iceland-in-figures>.

NATURE-BASED TOURISM IN ICELAND

The first origins of modern tourism in Iceland can be traced to the eve of the Anthropocene in the late 19th century. At that time, Iceland was a destination for explorers and adventure travellers. It was not until the end of the Second World War or the beginning of the great acceleration of the Anthropocene that an increase in flight connections between Europe and North America began. This made Iceland a destination point.²⁴

The first formal tourism policy was financed between 1973 and 1975 by the UN development Fund with the objective of developing tourism in Iceland, but it was not until the 1990's that the industry was recognized as a potentially important export sector concurrent with that of the fisheries. More importantly, the concept of selling nature through tourism gained validity when it was compared to the export of fish by Magnus Oddson, the general director of the Icelandic Tourist Board. Soon after, Icelandair established a hub at the Keflavik International Airport between North America and Europe.²⁵

The recognition of the Icelandic nature through its reduction to a mere resource for export is the first transformation that the Icelandic ecology suffers. Timothy Morton explains that the objective of capitalism is to create capital. According to him, raw materials are “*stuff*”²⁶ that passes through factories. Whether it is animals, construction materials, workers, it is not important. At the end of the process what comes out is “*stuff called capital*.”²⁷ Icelandic nature, therefore, becomes only a source for capital, a distortion created by capital interests.

Contrary to the fishing industry in Iceland, which has been mostly regulated by scientific knowledge, tourism has been treated as a socio-cultural activity. Tourism in Iceland is played on a natural stage, reducing nature to a mere cultural idea. Nature has been reduced to hotspots on a map to be

²⁴ Asst Prof Gunnar Thór Jóhannesson, Professor René van der Duim, and Ms Carina Ren, *Tourism Encounters and Controversies: Ontological Politics of Tourism Development* (Ashgate Publishing, Ltd., 2015), 187.

²⁵ *Ibid.*, 187– 195.

²⁶ Morton, *Hyperobjects*, 112.

²⁷ *Ibid.*

visited by tourist.²⁸ This view treats nature as not being part of the Earth and ignores another set of interrelationships of tourists and nature that could bear more value to them. This means that the close relationship of nature and society “*in a continuous movement of life*”²⁹ is ignored. The Earth and the activities that are “*more than human*”³⁰ are ignored. The “*material heterogeneity*”³¹ and “*agencies of diverse actors*”³² are ignored. “*The generative capacities of the Earth*”³³ and the effect on people’s relations is ignored.³⁴

Agriculture, as presented by Timothy Morton, is a significant contributor to global warming that includes humans, nature and relentless machinery. To him nature has become an agricultural stage created by humans since the beginning of society, and as such an “*ancient technological picture of the world.*”³⁵ Tourism’s conception of nature solely as a cultural activity can be interpreted as the second transformation that nature suffers. This resonates with Morton’s view of nature becoming a featureless remainder of the world at either end of a process of production that bears no reference to forces the Earth provides.³⁶

Timothy Morton asserts that nature is a romantic period invention where nature becomes just a result of automation.³⁷ To him, nature is just an empty category that eventually will be occupied³⁸. Even more, he states that nature as such does not exist since we cannot find it, see it or touch it. Morton explains Aristotle’s problem with materialism in that you can never hold matter or stuff in your hand the same way we seem to do with objects. For Morton, the same principle holds for what we call world. He questions the aim of sustainability in the context of world or nature. Such efforts to sustain a world or nature would be about sustaining an “*out-of-control system that sucks in grey goo at one end and pushes out grey value at the other.*”³⁹

²⁸ Martin Gren and Edward H. Huijbens, *Images, the Social and Earthly Matters in Tourism Studies*, Rannsóknamiðstöð Ferðamála; RMF-S-07-2009 (Akureyri: Icelandic Tourism Research Centre, 2009).

²⁹ *Ibid.*, 194.

³⁰ *Ibid.*, 182.

³¹ *Ibid.*, 194.

³² *Ibid.*

³³ *Ibid.*

³⁴ *Ibid.*, 192– 193.

³⁵ Morton, *Hyperobjects*, 106.

³⁶ *Ibid.*, 106, 112.

³⁷ *Ibid.*, 121.

³⁸ *Ibid.*, 113.

³⁹ *Ibid.*

The concept of the Anthropocene is being neglected in Icelandic tourism. For example, climate change and global sustainability are not mentioned in the Icelandic Tourism Policy for 2011–2020, accepted by the Icelandic Parliament in June 2011. The Icelandic Tourist Board, whose activities are regulated under the Tourism Administration Act., still has not established specific policy measures for tourism ground transportation to and from destinations and attractions. Edward Huijbens states that “*there is a blank space between environmental concerns at the level of the destination and on a planetary scale in the Icelandic public tourism policy.*”⁴⁰ This blank space can be conceived as a social construct to separate nature from the realm of the human, and therefore a third transformation that nature undergoes.

The Icelandic tourism continues to be mainly a fossil-fuel-dependent industry. Most of the visitors arrive through one aviation company, Icelandair, which expresses its aim to reduce CO₂ and greenhouse gas (GHG) emissions according to targets set by International Air Transport Association (IATA). These include carbon neutral growth by 2020 and cease of carbon emission from air transport by 2050. However, many of the strategies implemented refer to issues of fuel efficiency which could be motivated by cost concerns “*rather than environmental concerns.*”⁴¹ In addition due to the nature of the Kyoto climate treaty obligations under which Icelandair’s environmental policy subscribes, the company’s policy cannot be measured up against a global scale benchmark of sustainability.⁴²

The separation of nature from society and the lack of harmony between private local concerns with those on a global environmental scale resonate with Morton’s criticism on the way we still regard nature as being “*over there,*”⁴³ the beyond, or away, separated from technology, society and as such from history. He reminds us that we discard away our waste, explaining that the concept of “*away*”⁴⁴ was conceived as a simple practicality for humans. He also states that societies potentially “*embody philosophies*”⁴⁵ for something worse than just mere practicality.⁴⁶ This raises questions of

⁴⁰ Martin Gren and Edward H. Huijbens, “Tourism and the Anthropocene,” *Scandinavian Journal of Hospitality and Tourism* 14, no. 1 (January 2, 2014): 12, doi:10.1080/15022250.2014.886100.

⁴¹ Ibid.

⁴² Mads Greker et al., “A Kantian Approach to Sustainable Development Indicators for Climate Change,” *Ecological Economics* 91 (July 2013): 10–18, doi:10.1016/j.ecolecon.2013.03.011.

⁴³ Morton, *Hyperobjects*, 113.

⁴⁴ Ibid., 115.

⁴⁵ Ibid., 114.

⁴⁶ Ibid., 31, 114–115.

ethics in the Anthropocene. Tourism policy and application “needs to be measured up according to the boundaries and limits of the Earth and humanity at the global scale.”⁴⁷ Otherwise, the Earth will continuously be used as a “surface on which points are transformed into accessible destinations for tourists”⁴⁸ for the benefit of only humans and detriment of the Earth.

The tourism industry in Iceland is characterized by poor infrastructure at key destinations and what exist today is the result of narrow investments by the public and private sector that realizes that it would be more profitable to maintain the qualities of key tourist hot spot.⁴⁹ Even more, nothing is fixed in terms of funding and infrastructure development. For example, a parliamentary bill proposing the introduction of a nature pass that would charge a baseline fee to visitors from abroad if they want to travel in the central highlands or visit Iceland’s national parks never came to pass in parliament.⁵⁰ It seems that “sound economic rationality”⁵¹ and a notion of nature as a pure “feeding grounds”⁵² is just not enough to balance stakeholders’ diversities in the industry with a sound policy for the Earth.⁵³

Governmental tourism policy has to accept that in today’s reality “there is not outside and inside in the order of things.”⁵⁴ It has to be subject to improvisation and responsive to unpredictable outcomes and futures. Therefore, information, knowledge and active dialog in society become pivotal. The tourism research infrastructure has to be strengthened to tackle upcoming controversies among industry stakeholders in a time where the usual order to things cannot be assumed anymore.⁵⁵

For Morton sustainability fails as a concept because we are not living in a holistic world, a world in which nature is only a component. He reminds us of the entities that coexist with humans and interfere with their awareness with ever greater urgency. One of these entities Morton calls “global

⁴⁷ Gren and Huijbens, “Tourism and the Anthropocene,” 17.

⁴⁸ Ibid.

⁴⁹ Jóhannesson, Duim, and Ren, *Tourism Encounters and Controversies*, 193.

⁵⁰ “‘Nature Pass’ Shelved - Iceland Monitor,” accessed November 22, 2015, http://icelandmonitor.mbl.is/news/politics_and_society/2015/04/22/nature_pass_shelved/.

⁵¹ Jóhannesson, Duim, and Ren, *Tourism Encounters and Controversies*, 192.

⁵² Ibid., 194.

⁵³ Ibid., 192– 194.

⁵⁴ Ibid., 194.

⁵⁵ Ibid., 194, 195.

warming.”⁵⁶ The notion of the great acceleration in the Anthropocene as the main cause of global warming means that society and nature are not different but one, and that other relational interpretations embedded in tourism policy have consequences in how humans “*do nature and society*.”⁵⁷

⁵⁶ Morton, *Hyperobjects*, 108.

⁵⁷ Jóhannesson, Duim, and Ren, *Tourism Encounters and Controversies*, 194.

TOURISM IN AN ECOLOGY OF HYPEROBJECTS

Timothy Morton uses the term hyperobjects to refer to things that are immensely distributed in time and space in relation to humans. They could be a black hole, the Florida Everglades, the biosphere. It could be the sum of the nuclear materials on this planet, very long-lasting product manufactured by humans, such as plastic bags, the sum of all the whirring machinery of capitalism or global warming itself.⁵⁸ Morton states that these are real entities or objects with particular characteristics that include viscosity, different temporality, the occupation of high dimensional phase spaces, an interobjectively existence, and display a “*hyper in relation to some other entities.*”⁵⁹

Morton explains that hyperobjects are viscous, sticking to beings that are involved with them and penetrate them. They share our social and experiential space, thus ending notions of distance and norms concerning meaning and propriety. Morton exemplifies this by the way global warming burns every day the skin on the back of his neck, causing him physical discomfort and anxiety.⁶⁰ He also states that while hyperobjects are near, they are also very strange since sometimes global warming fails to heat up our skins and the weather becomes oddly cool or very stormy.⁶¹ For that reason, he concludes that his “*intimate sensation of prickling heat at the back of his neck is only a distorted print of the hot hand of global warming.*”⁶²

Climate is a determining factor in tourism, which determines the suitability of locations for a wide range of activities, it is the driver of global seasonality demand and influences operating costs. These factors have important implications for the competitive position and profitability of tourism related enterprises. Some studies show the possibility of a shift in the future of tourism for more attractive climatic conditions towards higher latitudes and altitudes. However, there are already uncertainties related to geographic and seasonal redistribution of visitor flows. Weather extremes could include higher maximum temperature and more hot days over nearly all land areas, greater intensity of tropical storms, winds and precipitation events and extended severe droughts in many mid-latitude

⁵⁸ Morton, *Hyperobjects*, 1.

⁵⁹ *Ibid.*, 1, 1– 24.

⁶⁰ *Ibid.*, 27.

⁶¹ *Ibid.*, 28.

⁶² *Ibid.*, 28, 27– 37.

continental interiors.⁶³ This will lead to infrastructure damage, changes in emergency preparedness requirements, higher operating expenses and business interruptions.⁶⁴

Other increasing weather factor affecting tourism destinations include loss in water availability, biodiversity and landscape aesthetic, as well as “*altered agricultural production, increased natural hazards, coastal erosion and inundation, damage to local cultural sites and increase of vector-borne deceases.*”⁶⁵ While the understanding of the impacts of climate change for various destination is advancing, there are still major regional knowledge gaps regarding the impact of climate change on the natural and cultural resources critical for tourism in some areas of the World.⁶⁶

According to Timothy Morton hyperobjects are nonlocal. They do not manifest at a specific time and place but rather are stretched out in such a way that they do challenge the idea that a thing must occupy a specific “*place and time.*”⁶⁷ For Morton locality is an abstraction that metaphorically applies to hyperobjects. He exemplifies the idea by stating that rain falling in Northern California in early 2011 could have been an effect of the tsunami stirring up La Niña in the Pacific, a manifestation of global warming. Heavy rain could simply be a local manifestation of some vast entity that we cannot see directly. Ontologically it means “*that not only is everything interconnected*”⁶⁸ but that attempts to deny global warming are a desperate attempt to ignore a scary reality. Some people might believe that if we stand under a rain cloud, it’s not global warming they feel.⁶⁹

Climate is the general condition of the atmosphere determined by long periods of observation. The elements of climate are the factors that define it, and equally “*influence the other elements of the natural and human environments.*”⁷⁰ Weather, on the other hand, is the condition of the atmosphere in a particular place and time. The elements affecting tourism mostly “*are temperature, number of sun*

⁶³ World Tourism Organization and United Nations Environment Programme, eds., *Climate Change and Tourism: Responding to Global Challenges* (Madrid: World Tourism Organization, 2008), 28.

⁶⁴ *Ibid.*, 28–29.

⁶⁵ *Ibid.*, 28.

⁶⁶ *Ibid.*, 28–29.

⁶⁷ Morton, *Hyperobjects*, 78.

⁶⁸ *Ibid.*, 48.

⁶⁹ *Ibid.*, 49–54.

⁷⁰ Ma Belén Gómez Martín, “Weather, Climate and Tourism a Geographical Perspective,” *Annals of Tourism Research* 32, no. 3 (July 2005): 572, doi:10.1016/j.annals.2004.08.004.

hours, precipitation, wind, humidity and fog”⁷¹. According to some scientist, climate change will not only affect the atmosphere and the sea but will alter the geology of the Earth. Melting glaciers will set off avalanches, floods and mud flows in the Alps, torrential rainfall will cause widespread erosion in the UK while melting of the ice in Greenland and Antarctic threaten to create underwater landslides, triggering tsunamis that could even strike in areas around Britain.⁷²

At the same time, the disappearance of ice caps will change the pressures acting on the Earth's crust and set off volcanic eruptions across the globe. Ice sheets are disappearing at a dramatic rate and these could have other, unexpected impacts on the planet's geology. One is likely to be the release of the planet's methane hydrate deposits. These ice-like deposits are found on the seabed, in the permafrost regions of Siberia and the far north. A build-up of permafrost methane in the atmosphere would produce a further jump in global warming and accelerate the process of climate change.⁷³

According to Timothy Morton, hyperobjects are massively distributed in time but they are not eternal. Instead, they have a “very large finitude.”⁷⁴ He is overwhelmed by the facts that half-life of plutonium -239 is 24,100 years. He states that “these periods are as long as all of visible human history thus far.”⁷⁵ He also states that 7 percent of global warming effects will still be occurring one hundred thousand years from now. What will remain of human beings in one hundred thousand years from now may be a tier of geological strata that includes us as fossils, new minerals such as concrete, mineraloids such as glasses and ceramics as well as other materials such as plastics. Morton states that these gigantic timescales force us to realize how close to Earth we are.⁷⁶ For the author, it is easier for humans to cope with the notion of infinity because it is an uncountable vast magnitude. But thinking of 24,100 years into the future is unimaginably vast⁷⁷.

⁷¹ Ibid.

⁷² *Waking the Giant: Climate Forcing of Geological Hazards*, accessed November 26, 2015, <https://vimeo.com/39489335>.

⁷³ “Methane Release Shows Dramatic Increase,” *Red Sky News*, accessed November 27, 2015, <http://redskynews.com/?p=1446>.

⁷⁴ Morton, *Hyperobjects*, 60.

⁷⁵ Ibid., 59.

⁷⁶ Ibid., 60.

⁷⁷ Ibid., 55– 68.

Climate is one of the geophysical forces that forms a geographical space. “People seek to settle in those places that offer the greatest comfort and possibilities for survival in terms of climate.”⁷⁸ However, the limited boundaries of the Earth are making an escape of the pains of life more difficult to maintain and eventually perhaps unaffordable for humans. History shows that changes in the Earth are rather rapid than gradual, and it is too early to know if humans have passed a threshold beyond which a return to the more climatic stable conditions is no longer possible.⁷⁹ Tourism in the Anthropocene is a geophysical force that will have an effect in the near future. The question is whether and how are we going to act within the vastness of hyperobjects. Morton states that we cannot separate ourselves from the fact that we are directly responsible for creating them and although it is likely that there will be no one meaningfully related to us in the distant future, our smallest actions today will affect that time profoundly.⁸⁰

⁷⁸ Gómez Martín, “Weather, Climate and Tourism a Geographical Perspective,” 573.

⁷⁹ Gren and Huijbens, “Tourism and the Anthropocene,” 8– 9.

⁸⁰ Morton, *Hyperobjects*, 133– 138.

DESIGN IN A REALITY OF OBJECTS

Timothy Morton deconstructs the idea of ecology by explaining that since ecology is the thinking of home, world and nature, in a reality without a home, world and nature, what is left is an ecology of objects or an ecology without nature. According to Morton hundreds of years of idealism with humans at the centre of concerns, the Anthropocene, has brought about the retaliation of objects.⁸¹ Objects such as “massive storm systems, generated by heat from burning of fossil fuels or gamma rays shooting out plutonium for twenty-four thousand years”⁸² are only now beginning to be recognised.⁸³ But how could the existence of humans be interpreted in such reality?

According to Morton human “consciousness”⁸⁴ can be compared to what a wind harp does when it “translates”⁸⁵ the wind. Conceptually, humans also are not hearing the sound of the harp. Instead, humans hear the wind’s translation of the strings, the sound box’s translation of the string’s vibration into amplified pressure waves. These waves are again translated by pressure cells in our ears.⁸⁶ Morton calls this “aesthetics as causality.”⁸⁷ Morton states that Object Oriented Ontology (OOO) is a form of weird realism. Objects have an essence that is profoundly withdrawn. Objects can “appear to touch one another physically, but they are withdrawn from one another ontologically.”⁸⁸ This means that when an object is translating another object, it is influencing it in a causal way. This can be compared to what a human does when he or she “acts on things.”⁸⁹ Humans “anthropomorphize”⁹⁰ things. One way, perhaps, to make sense of our actions as precursors of future outcomes on Earth could be through speculative design, for it thrives on imagination⁹¹ and as such could allow for alternative or previously unconceived assessments to the way humans “anthropomorphize”⁹² nature.

⁸¹ Ibid., 115.

⁸² Ibid.

⁸³ Ibid., 115, 119.

⁸⁴ Timothy Morton, “An Object-Oriented Defense of Poetry,” *New Literary History* 43, no. 2 (Spring 2012): 206.

⁸⁵ Ibid., 207.

⁸⁶ Ibid., 206.

⁸⁷ Ibid.

⁸⁸ Ibid., 207.

⁸⁹ Ibid.

⁹⁰ Ibid., 206– 207.

⁹¹ Dunne and Raby, *Speculative Everything*.

⁹² Morton, “An Object-Oriented Defense of Poetry,” 206– 207.

Morton states that humans can't help but anthropomorphizing everything they handle. He states that humans cannot strip themselves away from the totality of their "*phenomenological being*."⁹³ Morton explains that the same applies for objects, such as when the strings of the wind harp "*stringpomorphizes*"⁹⁴ the wind or the wind "*windpomorphizes*"⁹⁵ the temperature differentials between the mountains and the flat land. However, there is a social tendency to ignore that a translation of an object is not the object itself. Objects are prior to their relations and cannot be reduced to anything else upwards or downwards.⁹⁶

Until recently tourism things such as airplanes, cars, restaurants, museums, tickets, hotels, and even what we consider nature such as plants, trees, mountains etc. have appeared in tourism studies as related to the social realm of travellers. They have been given a social meaning as material or passive matter with only broad characteristics measured by the social realm. It is only now that these things are being conceived as hybrids with physical and social relations or *material agency* that makes them "*active agents in the production of tourism*."⁹⁷ It has been further argued that tourism itself could be a "*hybrid*"⁹⁸ or a construct of "*the concrete population of whatever is provided by Earth*."⁹⁹ Within this assumption, speculative design could exploit the concept of active agency of objects in nature with the purpose of giving them a voice or purpose as they interact with other objects such as humans. In this form of speculation, the designs could open possibilities for debate to "*define a preferable future*"¹⁰⁰ for the Earth as it is exposed to global warming.

Timothy Morton explains that OOO offers a reality where objects are unique without favoured categories. He states that holism should be treated with suspicion because it emphasizes the priority of a whole over its parts. A tree is unique, the same as a forest. A unique tree, therefore, cannot be replaced to create the same unique forest. Morton explains also that for OOO there is neither an object that gives all objects a value or meaning, nor a bottom object to which they can be reduced to. A medium "*in which other objects float*"¹⁰¹ does not exist either, for that reason there

⁹³ Ibid., 207.

⁹⁴ Ibid.

⁹⁵ Ibid.

⁹⁶ Ibid., 207, 208.

⁹⁷ Gren and Huijbens, "Tourism Theory and the Earth," 161.

⁹⁸ Ibid.

⁹⁹ Ibid., 162.

¹⁰⁰ Dunne and Raby, *Speculative Everything*, 6.

¹⁰¹ Morton, "An Object-Oriented Defense of Poetry," 209.

is no world, a surround and not an environment.¹⁰² These ideas could be translated into design concepts that speculate other forms of ecology for a future in which humans and non- humans are realigned and presented in different constellations. Such future should perhaps call for the treatment of each object in nature as an active agent with rights. That means treating each object in nature with respect and not as a generalized product or a natural resource exploited by an industry.

The Anthropocene is characterized by a growing pace of urbanization and the increased concentration of population in urban centres. In Iceland around 92% of the population is living in urbanized areas. Two-thirds of the total population lives in the capital region of Reykjavík, which also “serves as the gateway for almost all international and domestic tourism in the country.”¹⁰³ “The Industrial Revolution has given birth to the urban”¹⁰⁴ junk space with no rural background, where human forces compete with the Earth’s natural forces.¹⁰⁵ However, due to the socialization of the realm of tourism, the Earth, in the process of visiting a destination in the Anthropocene, is still invisible to “earthlings.”¹⁰⁶

In Iceland, the images of pristine nature, extreme wilderness, barren lava fields covered by slushy moss is constantly exploited in tourism marketing. However, nature as region unaffected by human activity does not exist anymore. Even conservation initiatives in the form of national parks are paradoxically artificial since it is an outcome of human intermediation. Nature is an artificial construct of domestication. It is the city that has become the territory of wilderness. The cities in the Anthropocene have become a vast system composed of a vast number of people, objects and all sorts of ideals.¹⁰⁷

For Timothy Morton, the relations between objects are aesthetics. He states that “nonhumans are fundamentally no different from humans.”¹⁰⁸ Objects have what humans have and do what humans do.

¹⁰² Ibid., 208–209.

¹⁰³ Edward H. Huijbens, Bárbara Costa, and Harry Gugger, “Undoing Iceland? The Pervasive Nature of the Urban,” in *Tourism and the Anthropocene*, eds. Martin Gren and Edward H. Huijbens (Routledge: London, 2015), 34.

¹⁰⁴ Ibid., 34-35.

¹⁰⁵ Ibid., 34, 36–39.

¹⁰⁶ Gren and Huijbens, “Tourism Theory and the Earth,” 166, 167, 155– 167.

¹⁰⁷ Huijbens, Costa, and Gugger, *Undoing Iceland?*, 36,42,43,48,49.

¹⁰⁸ Morton, “An Object-Oriented Defense of Poetry,” 214.

Not because objects are alive, but because people are not really alive, at least not in a relevant way. This means that, same as objects, we are not intelligent and alive. People just look and talk intelligently in relation to objects. For example, when a wind harp produces its sounds, it is not very different from when we talk about wind harps. Intelligence becomes irrelevant because is just an “*aesthetic appearance for some other phenomenon including the object in question.*”¹⁰⁹

A reality in the realm of industries, one that is with no nature and no world, relegates the Earth to a product for human consumption, an “*artefact.*”¹¹⁰ In this context speculative realism could also call for the design of experiences where humans are not at the centre of the world. This is a more ecological view that is necessary to stand up against the hyper forces that have been created through the “*violent colonization of nature.*”¹¹¹ This does not mean that humanity is unimportant, but that the privilege should also be extended to non- humans, the Earth, even perhaps without the necessity of “*human validation.*”¹¹² In this scenario hyper geo-forces “*could be placed at the centre of descriptive and analytical concerns.*”¹¹³

Morton explains that according to OOO there are “*sensual objects.*”¹¹⁴ For example, a wind harp for my eyes is a sensual object, a wind harp for the wind is a sensual object. Morton states that sensual objects are entangled in one another. This is where causality or the impression of appearance happens. This interrelatedness of everything is what Morton calls a “*mesh,*”¹¹⁵ sensual objects. For Timothy Morton, a mesh is the interconnectedness of all living and non-living things. Thus, there may be an infinite regress of “*objects wrapped in objects*”¹¹⁶ as well as an infinite progress of objects in which we are also wrapped.¹¹⁷ In speculative design the idea of sensual objects could represent a venue to create concepts that interpreted the vast interrelations of humans and non- humans, bringing them closer. This would perhaps allow for the conception of nature as an active member in its own right in the realm of the humans, in which society and nature are interconnected and should be consider equally important and with no privileges that separate them.

¹⁰⁹ Ibid., 215, 214– 215.

¹¹⁰ Huijbens, Costa, and Gugger, *Undoing Iceland?*, 35.

¹¹¹ Ibid.

¹¹² Ibid.

¹¹³ Ibid., 39, 35– 39.

¹¹⁴ Morton, *Hyperobjects*, 118.

¹¹⁵ Ibid.

¹¹⁶ Ibid., 119.

¹¹⁷ Ibid., 118, 119.

Morton's mesh presents the potential for speculative design to deconstruct the tourism industry, going beyond its industrial cultural aesthetics, beyond the current concepts of authentic wilderness, beyond the playful interaction with nature, beyond the short-lived enjoyment, beyond the human-friendly version of the real thing, beyond the mere gazing of mountains, glaciers, volcanos, lava fields, geysers, rivers and waterfalls. Today we know about the effects of global warming on melting ice caps, the loss of land mass, erosion, the acidity of the oceans, sea level rise, loss of species, and even how a loss in surface pressure can lead to more volcanic activity, affecting the air quality and traffic in the European continent. Until now human impact has been an embarrassing damage to the so-called pristine wilderness. There is an opportunity for designers to create a “*non- aggressive*”¹¹⁸ and non- repressive reality that is not only based on ideas of fun and relaxation. Ecology demands from future designers to ask themselves whether things have “*always been done, thought or produced this way*”¹¹⁹ in regard to travel, whether they are approached differently in other places, and whether different ways of “*thinking, doing and producing can be conceived for the future.*”¹²⁰

¹¹⁸ Huijbens, Costa, and Gugger, *Undoing Iceland?*, 43.

¹¹⁹ *Ibid.*

¹²⁰ *Ibid.*, 43, 42– 43.

CONCLUSIONS

The impact of human activity on Earth with the start of industrialization and onwards has become a powerful geophysical force comparable to the events of the ancient past. The energy subsidy from fossil fuels that has allowed the economic and technological developments during the last century until today has triggered the progression of human imprint in the periods that have been recently coined the Anthropocene and the Great Acceleration of the Anthropocene. This human imprint is indicated by the increase of CO₂ in the atmosphere which in concentrations above 450ppm could lead to dangerous shifts in the Earth climate system. Efforts to reduce global emissions have been recognized, however the rapid growth of some economic sectors, such as tourism, does make a qualitative and quantitative mitigation culture at a global scale very challenging.

Nature-based tourism in Iceland has followed the growing industry trend that characterizes the great acceleration of the Anthropocene with an explosion of international arrivals during the last years. However, tourism policy and practice have relegated nature to a resource of capital exploitation subjected solely to a social interpretation and approached as a cultural activity. In addition, nature is still being conceived as geographical place distinct and beyond from that of the realm of humans, which seems to be mostly the outcome of mere practicality for those who are only interested in the economic aspect of the tourism industry and do not consider the boundaries and limits of the Earth and humanity in the future.

For Timothy Morton sustainability fails as a concept because we are not living in a holistic world with nature as only a component of it. Nature has become only an empty category for something to fill it. Therefore, there is no nature, no world, nor environment. We are only left with global warming or an ecology of hyperobject, which also happens to be the realm of the humans. Global warming has come to interfere with most of our social and experiential space, and as such it becomes a factor of great importance in tourism planning and execution. However, climate is a complex interconnected general condition that requires still long periods of observation. This means that there are great uncertainties as to how climatic changes will influence weather and geology of the Earth. Even more, we still don't know whether human activity has passed the threshold beyond which a more climatic stable condition is possible. However, considering the

immense lifespan of some human- produced or extracted materials, we can be certain that our actions today will have a profound effect in the future.

According to Morton humans are phenomenological beings that cannot help but anthropomorphize everything they handle. This means that it is up to us, in this case, designers, to make sense of our actions as precursors of future outcomes on Earth. Speculative design, in this case, offers us a venue to imagine future desirable outcomes and bring on the table alternative perspectives on the way we as humans go about anthropomorphizing nature. Speculative design could build on the notion of an ecology of objects that are embedded with active agency, even a voice or purpose. Design could also be critical of our current perception of a holistic world, presenting a more desirable realignment of human and non- humans and creating constellations that speak more for the needs of the Earth rather than those of industries. In such realignment experiences could be designed to remove humans from the main focus of concerns, extending so the privilege to non- humans and the Earth. Speculative design could also focus on the interrelations of objects, bringing humans and objects in nature closer together, treating each object in nature with respect and not as a generalized product or a natural resource exploited by an industry. It could allow for the integration of nature in tourism as an active member in its own right in the production of tourism, beyond that of the current ideas of authentic wilderness, the playful interaction with nature and the short-lived enjoyment of nature. It is time to stop and question what the Earth is trying to tell us.

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