



# What changed in 43 years?

A comparison of the River *Laxá* dispute with perspectives towards the proposed *Bjarnarflag* geothermal power station in *Skútustaðahreppur*, Iceland

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**Abstract:**

This thesis compares the 1970 River *Laxá* dispute in *Skútustaðahreppur*, Iceland with perspectives towards the proposed *Bjarnarflag* geothermal power station in the same region 43 years later. The events in 1970 have been called the first act of environmental protection in Iceland. The study concentrates on power relations through Foucault's theory of Régime of Truth and Alf Hornborg's theory on the society as a machine. Critical discourse analysis of interviews with locals and different stakeholders along with published sources are at the heart of the analysis. Analysis ranges from local, national and global discourses of late modernity and theoretically connects power to the discourses in question.

*To my family*

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Dear

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Other interviewees were representatives from Icelandic environmental NGO's, government agencies, research centres, local district administration and *Landsvirkjun*. Árni Einarsson, Guðmundur Ingi Guðbrandsson, Guðrún María Valgeirsdóttir, Ingólfur Á. Jóhannesson, Ómar Ragnarsson and Pálmar Óli Magnússon; Thank you.

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## Introduction

Around 20 million years ago, an island started forming in numerous volcanic eruptions on the Mid-Atlantic ridge. The island is now inhabited and since the year 874, and even earlier, the islands inhabitants have had to survive the unforeseeable forces of nature in various volcanic eruptions, harsh weather conditions and isolation by sea. Formed by the North Atlantic ocean, ice and fire; the country offers pristine nature and spectacular sights whether at the shores dancing with the sea, in the mountains where powerful waterfalls fall of edges, in bubbling geothermal areas diverse and rich in colour or watching the midnight sun in the summer time. Welcome to Iceland.

In the North-eastern part of Iceland in the county *Skútustaðahreppur* is a nature reserve; a paradise with astonishing nature and spectacular flora and fauna. Lake *Mývatn* and River *Laxá*, that flows from the lake down to *Skjálfandi* bay, are situated in surroundings



Figure 1. Map of Iceland

of biological and geological uniqueness (UNESCO, 2011). The *Mývatn/Laxá* area is rich in biodiversity and holds a widely connected ecosystem, a catchment area of several hundred square meters, ranging from groundwater filtered through lava, lakes and rivers around Lake *Mývatn*, down the 58km long River *Laxá*, all the way to bay of *Skjálfandi* (Einarsson, 2013). Lake *Mývatn* itself is over 2300 years old and is situated in a volcanic area on the Mid-Atlantic ridge where natural geothermal water flows to the lake underground through layers of solid lava, and

carries with it approximately 10 tons of silica per day released in the lake (Ramý). The silica is the main source for the rich one-celled algae flora in the lake and the ground for the complex chain of biodiversity ranging from huge population of midges, to trout and salmon in River *Laxá*, various bird species (some of who only nest and mate at the lake), the flora around the lake and lastly the humans that make their living from this (Ramý).

In one specific year of these eternal processes, those resident humans rose up to protect their precious surroundings, of which they felt they were inseparably part of, for livelihood and sustenance. That was 1970. Now, forty-three years later, in the same area, the descendants of those people, faced with quite a similar threat, are passive, and quiet. What has happened in all those years? What has changed? These are the questions at the heart of this study.

## Historical context

In the years between 1969 and 1973, a dispute that, by some, has been called the first act of environmental protection in Iceland took place over Lake *Mývatn* and River *Laxá* (Gizurarson 1991, 5). The dispute was extensive and spread around the country like wildfire. It was a dispute between a partially state owned energy company, *Laxárvirkjun*, which looked upon a chance to gain financially and provide cheap electricity for a part of the country (Jónsson 1987, 180); and farmers wanting to protect their proprietary rights, their cultural heritage but first and foremost; nature (Gizurarson 1991, 5).

The energy company, *Laxárvirkjun*, owned by the state and a nearby town *Akureyri* (Jónsson 1987, 115-116) had plans of building a hydroelectric power station in River *Laxá*, which would be much bigger and have more consequences than the two power stations already operating in the river. The new power station required a 37-57m high dam to be built (Gizurarson 1991, 45)(Jónsson 1987, 148) eventually drowning the whole valley of *Laxárdalur* in water without consulting the people living there, violating landowner rights and threatening the flora and fauna of the area (Gizurarson 1991, 41-45). Further ideas were to move

several different rivers from their channels and direct them into Lake *Mývatn*. This would create more energy and efficiency for the proposed hydroelectric power station, called *Gljúfurversvirkjun*, and was economically feasible. The ideas of directing the rivers to Lake *Mývatn* were later dismissed, but the dam was still going to be built (Jónsson 1987, 147-150;206).

Farmers in *Laxárdalur* stood helpless since agents from the company had driven between farms and told people that their valley would be flooded and given them dates on when they would have to move as the water would drown their lands and homes (Brian, 2013). Farmers in *Skútustaðahreppur* feared that the constructions would have serious consequences on biodiversity and their lives in addition to flooding *Laxárdalur*. The construction party did not address their concerns although farmers and a newly created environmental protection agency, SUNN, had spoken publicly and written letters to express them (Gizurarson 1991, 29, 37). A letter from a minister allowed construction of the power station (Jónsson 1987, 152) but no consultation was had with the farmers, and owners of land were threatened with expropriation leading to displacement if they would oppose to the plans (Gizurarson 1991, 42)(Hvellur 2013). The decision was taken with economical feasibility in mind and in no agreement with landowners (Hvellur, 2013). The previous two dams had had negative consequences for farmers and they were built without any consultation with those who would be affected by it (Gizurarson 1991, 24).

On a sunny night<sup>1</sup> on August 25<sup>th</sup> 1970, the dispute took a dramatic turn as a group of people blew up a small dam in Lake *Mývatn*, *Miðkvíslarstífla*, which was of high importance for the big hydroelectric power station that was under construction at the time (Jónsson 1987, 206, 210). No one was injured, and the farmers blew it up with dynamite owned by the construction party, which they found lying around in the county. The decision of blowing it up was taken after the people had dug down the dam with their bare hands and shovels until they reached concrete, which they did not know the dam was made of (Hvellur, 2013).

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<sup>1</sup> Iceland is known for the midnight sun in the summer time. When the bombing took place the sun had not yet set



All other ways had been exhausted; mass protests, newspaper articles and legal actions against the energy company and the state did not seem to reach those in command (Hvellur, 2013). The ultimatum for the farmers was to show in action that their voices needed to be heard and their concerns to be addressed. They looked at themselves as protectors of sensitive nature, which they themselves, and their ancestors had lived with in harmony for decades and intruders from the outside were threatening the balance, which had prevailed for all that time (Hvellur, 2013).

*“I feel that River Laxá and the Lake Mývatn area are not a property belonging to Þingeyingar alone, but internationally shared and can be compared to Þingvellir<sup>2</sup>”*

*(„Mér finnst að Laxá og Mývatnssvæðið séu ekki eign Þingeyinga<sup>3</sup> einna, heldur alþjóðæign sem að má bera saman við sjálfa Þingvelli”) (Hermóður Guðmundsson, Hvellur, 2013, my translation)*

The farmers of the county stood together as one. They had founded a Landowners Union led by Hermóður Guðmundsson, filed a lawsuit against a biased government where there was a suspicion of systematic corruption, held mass protests and gained the sympathy of the Icelandic public. A strong resistance was created and after all other means had been exhausted, the decision was taken to directly affect the construction (Hvellur 2013).

The executive power moved furiously after the act and a few people believed to have organized the bombing were arrested in an attempt to press charges against them. Many people were interrogated but in the end, 113 people claimed to have been the bombers and 65 people received a suspended sentence (Gizurarson 1991, 144-145)(Hvellur, 2013). Nobody revealed who the real bombers were- the solidarity was admirable. In the end, the whole case regarding the construction of the power station closed with an agreement after a really complicated legal and

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<sup>2</sup> Þingvellir is a national park in a rift valley of the Mid-Atlantic ridge where the Icelandic Alþingi (Icelandic national parliament) was founded in the year 930.

<sup>3</sup> Þingeyingar are the people living in Þingeyjarsýsla county which Skútustaðahreppur is, one amongst other, district within

settlement agreements (Gizurarson 1991)(Jónsson 1987). The construction party ceased from its plan of drowning the valley and built a much smaller flow power station, which did not have severe effects and the farmers held their land that they had previously been threatened with expropriation (Hvellur, 2013). Lake *Mývatn* and River *Laxá* were granted a special protection under legislative act no. 36/1974. The act was reformed and repealed in 2004 by act no. 97/2004 and a special Nature Research centre at *Mývatn*, Ramý, was founded parallel the laws in 1974. The site is a designated Ramsar<sup>4</sup> site since 1977 and has been on UNESCO's tentative list since 2011 (UNESCO, 2011).

However, thirty tree years later, the same energy company, now called *Landsvirkjun*, owned by the Icelandic state, sent in an environmental



impact assessment *Figure 2. Preparation constructions at Bjarnarflag*

(EIA) to the evaluation authority in environmental matters at the time, The National Planning Agency (*Skipulagsstofnun*) asking for permission to build a 90MW geothermal power station at the site *Bjarnarflag*, located only 4km away from the water bank of Lake *Mývatn* and 3km away from the small village, *Reykjahlíð* (*Landsvirkjun* 2004). *Landsvirkjun* was granted the permission with proviso regarding surveillance of the hot water and silica flow to the water, change of heat in the geothermal area as well as appearance and activity in the geothermal and hot spring area east of *Námafjall* mountain (*Skipulagsstofnun* 2004). The district council in *Skútustaðahreppur* granted *Landsvirkjun* in October 2012 a construction license to start preparation constructions on site. Eight years

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<sup>4</sup> The RAMSAR convention is an intergovernmental treaty on wetlands of international importance

passed since the EIA was approved until *Landsvirkjun* was granted a license for preparation constructions (*Landsvirkjun*, 2012).

Between 2002 and 2006 *Landsvirkjun's* operations were centred on building the largest hydroelectric power station ever built in Iceland, with an astonishing 690MW production capacity at Kárahnjúkar in the eastern highlands (*Landsvirkjun* 2009). *Skipulagsstofnun* did not grant its permission for the construction due to irredeemable consequences on flora and fauna of the highlands and affected areas, down to Lake *Lagarfljót*. In their verdict they said:

*“It has not been proved to Skipulagsstofnun that profit from proposed constructions at Kárahnjúkavirkjun will be to that extent that it outnumbers the permanent, irredeemable, negative effects which the construction will obviously have on nature and land”* (Theodórsdóttir & Thors 2001, 278)

*Landsvirkjun's* conclusion however was that:

*“According to the EIA, Landsvirkjun's conclusion is that environmental impacts of the hydroelectric power station are within acceptable margins in light of the economical profit which proposed power station will create and the employment development which will come with sale of the energy”* (Theodórsdóttir & Thors, 2001, 177)

A highly political decision converted the verdict of *Skipulagsstofnun* and the minister of the environment at the time, Siv Friðleifsdóttir, gave *Landsvirkjun* a permission to start constructions. On 30<sup>th</sup> of November 2007 the power station was put in use despite much local and global opposition, such as Greenpeace and the WWF (*Savingiceland.org*, 2006).

An economic crisis hit Iceland in late 2008-2010 so all constructions by *Landsvirkjun* were put on hold. There was silence from the energy sector for a few

years while Iceland was in recession and people worried about their future and increasing loans and national debt.

In late 2012 the energy sector started moving again and *Landsvirkjun* revisited their plans of a geothermal power station in *Bjarnarflag* near Lake *Mývatn*.

14<sup>th</sup> of January 2013 *Alþingi*, the Icelandic legislative assembly, passed laws on *Rammaáætlun* (e. Framework agreement) on protection and utilization of natural resources concentrating on geothermal areas and hydropower. There were three distinctive groups for natural resources to be arranged in; protection, waiting group and utilization group (*Umhverfisstofnun*). *Bjarnarflag* was classified in the last one, mainly due to the fact that *Landsvirkjun* has had a 3MW power station in operation there for forty years, which has provided the locals with hot water and electricity (Einarsson, 2013). On 12<sup>th</sup> of March 2013, news of severe negative effects on Lake *Lagarfljót* was announced as a result from the big *Kárahnjúkar* hydroelectric power station. Scientists, public institutions and environmentalists had warned that this would happen, but the politicians had not listened (Rúv, 2013a). *Landsvirkjun's* CEO, Hörður Arnarson stated in an interview that the consequences had been known prior to the constructions so people should not be surprised. It was people's assessment at the time that it was justifiable to give such sacrifices (Rúv, 2013b)

People got concerned and environmental protection debate rose again as Lake *Mývatn* was next on *Landsvirkjun's* agenda.

Icelandic environmental NGO's, several environmentalists and scientists expressed their concerns and criticized that the EIA<sup>5</sup> for *Bjarnarflagsvirkjun* was ten years old and a lot of experience had been gained in the geothermal sector since the permission was granted. Both printed and online media were flowing with articles by people concerned about the power station's consequences on the

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<sup>5</sup> Environmental Impact Assessment. The Environment Agency decides if a construction is subject to undergo an EIA before constructions take place and *Skipulagsstofnun* gives an advisory opinion on it

biodiversity and flora and fauna in the Lake *Mývatn* area, but additionally, the consequences on people's health.

*Landsvirkjun* and two other energy companies, *HS Orka* which is privately owned and *Orkuveita Reykjavíkur* owned by three towns, have five geothermal power stations in operation around the island, situated along the Mid-Atlantic ridge where geothermal heat is of great extent (*Landsvirkjun*. *HS Orka*. *OR*). A valuable experience has been gained in the operation of these geothermal power stations in the ten years from the granting of permission to *Landsvirkjun* until they received construction permission. Those experiences include problems with waste water being pumped back into the soil, leading to earthquakes in *Hellisheiði* and pools of waste water surfacing to the ground in great extent, in one case contaminating Lake *Bingvallavatn*; and vapour containing H<sub>2</sub>S affecting people with heart and respiratory problems in the capital area (*Ruv.is*)(*Visir.is*)(*Smugan.is*, 2013a). Those problems were not foreseen in the EIA's made for the current geothermal power stations and no solution has been found to these problems yet.

I noticed that opposition against the geothermal power station at *Bjarnarflag* seemed to come only from environmentalists and environmental NGO's and the year 2012 ended and 2013 started with debate in media about the consequences the construction might have for the *Mývatn* area. Forty-three years had passed since the people of *Skútustaðahreppur* rose up and protested against the hydroelectric power station that threatened their nature and heritage, but it seemed that their voices were not a part of the debate against the plans at *Bjarnarflag*.

My curiosity aroused and I pondered the question: What changed in 43 years? Were the people of *Skútustaðahreppur* in 2013 not as concerned as their ancestors were in 1970? My mission was clear. I would travel to the northern part of Iceland, stay in *Skútustaðahreppur* and talk to the local people there and find out their thoughts on the matter. I also decided to analyse the data available from

the dispute in 1970, discourses in media about the proposed geothermal power station at *Bjarnarflag*, talk to specialists and representatives from *Landsvirkjun*.

I began a journey that took me 500km away from home; I spent a few days in *Skútustaðahreppur* in beautiful natural surroundings and interviewed the locals. As my journey developed I started seeing connections that took me further than the local level and which could possibly be connected to a global discourse. This thesis is my quest to test if my hint was right. Could these events be connected with Foucault's régime of truth and does Iceland fit into Alf Hornborg's theory of the society as a machine? Are the events in *Skútustaðahreppur* in 1970 and 2013 a part of an international discourse of late modernity? That, I intend to find out.

**Research question:** What changed in 43 years? A comparison of the River *Laxá* dispute with perspectives towards the proposed *Bjarnarflag* geothermal power station in *Skútustaðahreppur*, Iceland.

**The aim of the thesis:** To compare those two events and understand why people from *Skútustaðahreppur* did so strongly oppose the hydroelectric power station in 1970 and took action to prevent it, but in 2013 it seems that only environmental NGO's and environmentalists are fighting against the proposed geothermal power station at *Bjarnarflag* while the locals are silent. I want to see if these two different events can be put in an international context in the discourse of capitalism as a prevalent, hegemonic<sup>6</sup> paradigm of late modernity.

## Methodology

The approach to a paper intended to shed light on prevalent perspectives and compare two cases different in time and space, called for several different methods. As Titscher et al. state, methods are not isolated in space, but are either explicitly or implicitly related to theoretical assumptions and structures (2000, 5). A method marks the way a research is taken, from the researchers point of view

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<sup>6</sup> "Hegemony is relations of domination based upon consent rather than coercion, involving the naturalisation of practices and their social relations as well as relations between practices, as matters of common sense- hence the concept of hegemony emphasises the importance of ideology in achieving and maintaining relations of domination" (Forgacs 1988; Thompson 1984; Fairclough 1992a, Larrain 1994, cited in Chouliaraki & Fairclough 1999, 24)

and his theoretical assumptions to the observation and collecting of data (Titscher et al, 2000, 5-6). My theoretical assumptions were that there had been a change in perception between the two events, and that they were linked to a global discourse so by choosing an applicable method would allow me to test that theory.

When having chosen to dig deeper into Foucault's régime of truth, a certain methodology had to be applied in order to show if there did indeed exist a correlation between a discourse and a truth régime, as I am suggesting. Critical discourse analysis (CDA) soon came into my mind as an applicable approach, since it deals with social analysis through written and spoken language, as well as other forms of semiosis, all of which are considered as text (Chouliaraki and Fairclough 1999, vii). Chouliaraki & Fairclough ponder the question whether CDA can be seen as a theory or method. I agree with them in seeing CDA as both. When used as a method its aim is to analyse social practices in the discourse, that those practices are conducted within, and through that analysis it becomes a theory for development as it brings together various theories of social sciences (1999, 16).

An analysis of available data, primary and secondary, seemed feasible to reach a conclusion whether a certain régime of truth existed at several levels in Iceland and CDA would provide me with tools to analyse the data and make a comparison between the two cases in *Skútustaðahreppur*.

A balanced mix of already available data with collection of primary data, where the focus was set on power and how it reveals itself, was the starting point of my critical text and discourse analysis. The analysis took place after the data had been gathered and since the research was focused on perspectives and historical events, a questioning was more suitable than observation (Titscher et al. 2000, 6). I created semi-structured, open-ended interviews and adjusted questions slightly for different stakeholders.

As there were only a few of my interviewees who had experienced the events in 1970 first hand, I also relied on secondary data when analysing the régime at that

time. Two books, written by two different authors, were published with four years interval and they each took a different stand towards the story of *Gljúfurversvirkjun* dam in River *Laxá*. Since the bombing in 1970 was a singular event in Icelandic environmental protection, and the local resistance a unique example of wide solidarity, all of my interlocutors had a story to tell about it, which had lived in their families since the event took place even if they themselves had not been there at the time. Their stories will also be used and the manner of their narrative critically analysed.

Secondary data from online news agencies, brochures from *Landsvirkjun*, official, public and academic data will be used in addition to primary data when analysing the truth régime of the present.

A stakeholder is a person, group of persons or an institution that has interest in a certain natural resource and must be considered when launching of a project is planned. Since stakeholders have a vested interest and will potentially be affected of what constructions will take place, they have something to lose or gain whether things change or will be kept the same (Gawler and Golder, 2005). After a careful introduction of the planned geothermal power station in *Bjarnarflag*, I made a stakeholder analysis to be able to identify what people I needed to talk to in order to get varied responses. I wanted a cross-section in the area and to be able to talk to as many different stakeholders with as different interests as possible. Choosing representatives from official institutions, *Landsvirkjun*, environmental NGO's and the local district council was not a challenge since these parties were the ones who had been taking part in public discussion about the proposed *Bjarnarflag* power station. As my curiosity circled around the locals' perception of the plans, I knew that I had to pack my bags and travel to *Skútustaðahreppur* in order to gather primary data. However, the challenge was finding interlocutors that would agree on an interview and allowing a stranger entering their community with the intention of gathering data for an academic study.

The problem with writing a questionnaire with the aim of getting the answers to my questions was to include nodal points connected to the discourse I wanted to



identify and analyse. Nodal points are signs which other signs circle around and acquire their meaning from the relationship to the nodal point (Jørgensen & Phillips 2002, 26). In this certain case my discourse is the political power behind late modernity and capitalism. I chose to have the questionnaires structured but also open ended so I had space for discussion and could allow my interlocutors to speak freely of what came into their mind regarding the questions. All interviews were digitally recorded with a Dictaphone and transcribed afterwards.

As some of my interviewees were not ready to speak under identity I have created pseudonyms for all of my interviewees in *Skútustaðahreppur*. Other interlocutors are mentioned by name. I felt that my interviewees spoke honestly about the matters and I could sense that the proposed power station was worrying most of them. A strong part of the people's identity is connected to Lake *Mývatn*, the surrounding nature and their county as well as their cultural heritage; and most of them could relate themselves to the River *Laxá* dispute in 1970. Even people who had not grown up in *Skútustaðahreppur* seemed to have developed strong ties to the place and were concerned about its destiny.

When I had conducted all of my interviews I realized that I was facing an ethical dilemma. On one hand, I had interviewees who wanted their identity to be unrevealed and on the other hand I was conducting an academic study where verifiability is one of the main virtues. I could not choose one without excluding the other so I had to take a decision. In my mind the answer was simple. The people had let me into their lives, given me their time to tell me about their worries, hopes and dreams; of course I would protect their anonymity. If that choice is considered to affect the quality of this research, I will have to accept that, but in my mind, academia should be out there and be able to protect identity at the same time. The anonymousness of my interviewees from *Skútustaðahreppur* should not be detrimental to this research since it was done in full integrity and with respect to the interviewees. The loss of explanatory power should not be to a great extent since secondary data is also used to support my theories and should make up for the loss of the origins of the interviewees explanatory power in primary data.

All of the interviews were conducted in Icelandic and most of my secondary data comes from Icelandic sources. As Icelandic is my mother tongue there were no language barriers between my interlocutors and me, nor did I have a hard time understanding the secondary data. The material used from the interviews, secondary data, and quotes are all translated by me. I did my best in not detaching any meaning attached to the text I was dealing with.

Pitfalls of the interviews I saw as me not being able to express my own opinion, especially to those I suspected to be in favour of the *Bjarnarflagsvirkjun* power station. Interviewing those people was more difficult. The people I knew were opposed to *Bjarnarflagsvirkjun* were more open and expressed their feelings more enthusiastically. I tried to be as neutral as I could, but in few of the interviews I could not hold back and expressed my opinion. That resulted in longer and more in-depth interviews but could also have affected the research. In some way the questions I composed may have been leading but as I was trying to understand perspectives and revealing any kind of truth régime, my questions circled around the nodal points; power, culture, sustainability and economy<sup>7</sup>.

I conducted 18 interviews where there was a balance in gender and age; my youngest interlocutor was around 30 years old and the oldest a pensioner. When I started choosing interviewees I wanted to get a balance in those who were pro and against the proposed constructions at *Bjarnarflag* but as I had conducted the interviews I found out that it was a rare occasion that people were entirely pro constructions, more on that later.

My key signifiers are the nodal points of culture, power, sustainability and economy; the master signifier is the identity of the people I talk with and the myths are capitalism and society (Jørgensen &Phillips 2002, 50). I will use these concepts to investigate how the discourses are working and as Jørgensen and Phillips state, how each discourse is constitutive of knowledge and reality,

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<sup>7</sup> An example of questions posed in an interview is found in Appendix 1

identity and social relations, and how the hegemonic interference affects these processes (2002, 50).

Habitual ways of how people do things at particular times and in different societies are by Chouliaraki and Fairclough called *practices*. Practices create a connection between real social life and abstract structures and their functions (1999, 21). Practices have three characteristics: they are how social life is produced (not only in the economical sense), they belong to a network of relationships where the outside relationships ascertain their composition and they are reflexive (Chouliaraki & Fairclough 1999, 22). Through these methods I will concentrate on practices and perspectives as well as the key signifiers to critically analyse the data.

## **Walking with theories**

The curious comparison of the two cases certainly raised a number of questions in my mind and along the way I tried to find theories applicable to explain what had happened. My first guess was that both of the cases had something to do with power and power relations so I designed my interviews in a way that might reveal that. I involved questions about sustainability, culture, power and development of the society since 1970. I tried to gain insight to peoples feelings towards the place and the lake and understand what changes had taken place in the 43 years between the dispute over River *Laxá* and Lake *Mývatn* and the perspectives towards the proposed geothermal power station at *Bjarnarflag*.

I was quickly drawn towards a particular theory of power, one that could maybe explain the shift of thinking from 1970 to 2013. To be able to use that theory, I would have to widen my scope and look further than the local society in *Skútustaðahreppur*, look at the matter from a different level. A national and global level would need to be included and help from a French philosopher would be sought. Foucault's ideas on governmentality and power seemed feasible, but after a short glimpse at them, I didn't find governmentality applicable, but power

would still be my main area of focus. Foucault explains governmentality as: “This contact between the technologies of domination of others and those of the self I call governmentality” (Foucault 1988, 19). Since there was no clear domination of others in my cases, I treaded the path of Foucault further until I stumbled upon his theory of a truth régime. That theory has received criticism since Foucault only mentioned it in one interview in the book *Power/Knowledge: selected interviews and other writings* (1980) and never touched upon it again in his later work. Although Foucault never talked about the régime of truth again, the theory is too fascinating to be left out in the cold. As I will also use Alf Hornborg’s theory on the society as a machine and CDA I believe using Foucault can be seen as nothing else than complimentary to my cases and highly relevant.

On my walk with theories I repeatedly came across a big sign with the name “Capitalism” on it. It seemed to be over and all around me whatever conclusion I was getting to. Foucault stressed that local struggles are the specific site of confrontation of power (Gordon, 1972) but to see if a global connection could be found in my cases, I moved to another intellectual which has been focusing on the society as a machine and global connections (Hornborg 2001). For the final stretch of my walk, I decided to invite Alf Hornborg’s ideas on zero-sum game and cornucopia to walk with me and see if something fruitful would come out of that analysis.

## Power

Power is a term, which demands a definition before being applicable to any case. I will use two definitions of power, one by Alf Hornborg and the other one by Michel Foucault.

In his 2001 book, *The Power of the Machine*, Hornborg wants to unmask the power of the machine but he understands power as a social relation built on asymmetrical distribution of resources and risk. He notes that power is culturally built and disguised as natural and inevitable (Hornborg 2001, 1). The machine is here to be understood as species of power, which would not exist if it weren’t for

money and modernity (Ibid, 2). The machine is made up of three components: nature, knowledge and exchange so it is surely a social phenomenon (Ibid, 10) Hornborgs' main thesis is:

*"... that we are caught in a collective illusion about the nature of modern technology. We do not recognize that what ultimately keep our machines running are global terms of trade. The power of the machine is not **of** the machine, but of the asymmetric structures of exchange of which it is an expression" (Hornborg 2001, 3)*

He argues that three different aspects of power are all aspects of a single social phenomenon. These aspects are: power to conduct work, power over other people and power over our minds (Hornborg 2001, 2). This perspective on power is intended to reveal the mystification over the machine as a social phenomenon and to reveal how the global environmental crisis of modern society is a problem of power, culture, and epistemology (Ibid, 2). The main fetish<sup>8</sup> of industrial capitalism is the industrial machine, and as long as hegemonic economic vocabulary is in use it is harder to break down the machine as such and reveal the global unequal exchange it builds on (Ibid, 3). By seeing through the fetishism and criticize industrial capitalism in a cultural setting, it is possible to recognize economic exchange as a part of the technology (Ibid, 3).

My argument, with the help of Hornborg and Foucaults' theories, is that the power the people in *Skútustaðahreppur* are subjects to is built into a social system and a prevalent discourse, so deeply rooted that it is hard to brake it down and fight back. There exists a certain language within a truth régime, at several levels, which strengthens the overall aim of industrial capitalism (Hornborg 2001, 2)(Foucault 1980, 131). Locally there is the discourse of economic growth, sustainability and employment. Nationally, *Landsvirkjun* is building its image on the fact that they are utilizing green energy but all of their arguments seem to be

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<sup>8</sup> *Fetishism* refers to Marx's definition of commodity fetishism where social relationships in production are seen as economic relationships among money and commodities exchanged in a market rather than relationships among people. The subjective is transformed into something objective that people believe have intrinsic value (Rubin 1990, 5).

based on economical grounds (Landsvirkjun). The national level is also dealing with misperceptions of green energy and sustainability as well as encouraging foreign direct investment and global trade. Globally there has been a huge social and economical change in a system called late modernity or post-industrialism (Chouliaraki & Fairclough 1999, 4) where emphasis on infinite growth is degrading the environment and sustaining unequal exchange (Hornborg 2001, 2). All of the discourses end up as sustaining capitalism as a hegemonic worldview.

Foucault dedicated much of his lifework on aspects of power and how governmental institutions have programmed individuals through their exercise of power over them (Foucault 1972, 1977, 1982, 1984, 1994). He approaches the discussion of a truth régime from a point of view that truth is not to be deprived of power. As he describes:

*"The important thing here, I believe, is that truth isn't outside power, or lacking in power: contrary to a myth whose history and functions would repay further study, truth isn't the reward of free spirits, the child of protracted solitude, nor the privilege of those who have succeeded in liberating themselves. Truth is a thing of this world: it is produced only by virtue of multiple form of constraint. And it induces regular effects of power. Every society has its régime of truth, its "general politics" of truth: that is, the types of discourses which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statement, the means by which each is sanctioned; the techniques and procedures accorded value in the acquisition of truth; the status of those who are charged with saying what counts as true." (Foucault 1980, 131)*

To the political economy of truth Foucault identifies five different approaches.

- 1) *"Truth is centred in the form of scientific discourse and the institutions which produce it*
- 2) *It is subject to constant economic and political incitement (the demand for truth as much for economic production as for political power)*

- 3) *It is the object, under diverse forms, of immense diffusion and consumption*
- 4) *It is produced and transmitted under the control, dominant if not exclusive, of a few great political and economic apparatuses (university, army, writing, media)*
- 5) *It is the issues of a whole political debate and special confrontation (ideological struggles)"*

(Foucault 1980, 131-132)

When assessing whether scientific knowledge or truth is essentially right or true, the power relations behind it must be analysed. Where is the truth coming from, what is the intellectual's connection to the subject, has the intellectual any interests in that particular result (connected to his background, employer or class)? In a circular relation, Foucault sees truth as linked to power and systems of it that aim to sustain it, which essentially is a régime of truth (1980, 133).

There is not a demand for the intellectual to always be criticizing how science may ideologically be connected to a régime of truth, but rather that he/she acknowledges that there is a possibility for new politics of truth. Rather than changing people's awareness, there should be a change in the political, institutional and economical régime in producing truth (Foucault 1980, 133). The régime of truth we live in today is not only ideological. For capitalism it was the condition for its formation and development (Foucault 1980, 133) and it is sustained today through different discourses, vocabulary and power relations.

### **Cornucopia**

Hornborg defines his term of the cornucopia model as: *"the currently hegemonic worldview that declares capital accumulation in the core completely innocent with regard to poverty and environmental problems in the South"* (2001, 29).

In Iceland there is a tendency to talk about the clean energy of the country created in hydropower or geothermal power stations without any regard to the connection to the global level. Through FDI Iceland sells its energy to large-scale

industry, which is operated by big corporations, one of which is Alcoa, which run big aluminium smelters in several places around the country. To see things in a wider context, big corporations in the aluminium industry are known to degrade environment in poorer parts of the world by bauxite extraction (which is essential for aluminium production) and sustain social inequality (Al Jazeera, 2009)(Youtube, 2008).

Growth is seen as good for the global economy and global ecology (Hornborg 2001, 24) although today's economy relies on resource exploitation in poorer parts of the world. This results in some scientists/economists blaming the poor countries to be less environmentally concerned and connect economic growth with environmental prosperity, when all that has happened is a shift from resource depletion in richer part of the world to the poorer ones (Hornborg 2001, 30).

### Zero-sum game

The zero-sum view first came up in the 1970's when people realized that the Third world and the global environment were suffering the consequences of industrial economic growth and that the wealth of the First world was built on social inequality (Hornborg 2001, 24).

If put in context with a world system analysis, Iceland can be seen as a core in some way, benefitting from peripheries that are being impoverished to sustain growth, but also as a semi-periphery in relation to the FDI which is exploitative for the Icelandic economy and society (Hornborg 2001, 11). *Skútustaðahreppur* could in a way be seen as a periphery within the semi-periphery of Iceland due to the manipulation of natural resources where the inhabitants will sit up with irredeemable environmental affects and possible health problems due to the H<sub>2</sub>S vapour lying over their community.

In order to sustain itself, the capitalistic system has been benefitting from a brilliant term, which was made up to sustain growth and consider the



environment, society and the economy. That's where we revisit the term of cornucopia that tells us that growth is good for the global economy and the global ecology, also known as *sustainable development*.

The classic definition of the term sustainability is taken from the 1987 Brundtland report where it is defined as: "*development which meets the needs of the present without compromising the ability of future generations to meet their own needs*" and should be able to do so on the grounds of economic development, social equity and environmental protection (United Nations 1987, A/42/427).

It seems that this term could serve its purpose in respectful use of resources that will not affect future generations, but in reality it has seemed difficult to reach that point. The reason? Because it hinges on growth, infinite growth of capital on a finite planet.

Young people are being directed in the way of sustainable development through educational institutions. Not only young people, but every citizen, at least in the West, is being told that the bad consequences on growth can be cured with more growth. The term is blurring the global connections and directing a criticism of capitalism in an adverse way (Hornborg 2001, 25). In order to free ourselves from that distraction, we have to keep in mind the question that Marx posed: "*Is the growth of benefit to everybody, or only to a few at the expense of others?*" (Ibid, 25)

The power embedded in such a term, which has been defined as to meet needs of economic growth, social equity and environmental protection simultaneously, is enormous and is what drives our society today. Sustainable development is everywhere. But is sustainable development necessary the whole truth? Could it not be a term used within a régime of truth to sustain a certain political and economical state? I am referring to that régime of truth as capitalism and that sustainability is a term filled with power and put forward as truth to withhold that paradigm.

The term *sustainability* did not exist in 1970, despite that, people in *Skútustaðahreppur* seemed to be more aware of its meaning than today when it has been defined and is widely used in public discourse. I would argue that it has been used to such extent that the term has lost its initial meaning and has become a floating signifier<sup>9</sup>, and people don't know what meaning is attached to it.

A whole set of truths have been constructed around the myth of capitalism with help of intellectuals. In order to brake down that truth régime, one must consider that truth is power and by connecting Hornborg and Foucault, the power of the machine can be broken down by addressing that.

In the last chapters I will use quotes from my interviewees and analyse them in terms of prevailing régimes of truth at different levels and see if the Icelandic society is also working as a machine.

## Quotes and analysis

Over 8000 people have signed a plea for *Landsvirkjun* to redo the EIA due to the fact that the current one is almost ten years old and neither factors regarding hydrogen sulphide pollution and its effects on people's health have been examined nor the effects of the ecology of Lake *Mývatn* and River *Laxá* due to pumping down of waste-water (Smugan, 2013b). The Environment Agency of Iceland has also encouraged *Landsvirkjun* to redo the EIA as well as few members of parliament (Smugan, 2013b). The *Mývatn/Laxá* area has been put on The Environmental Agency's red list of endangered areas in light of the proposed constructions (Umhverfisstofnun).

Not everyone agrees with the need for a new EIA as the CEO of *Landsvirkjun* states in an interview on April 5<sup>th</sup>:

Hörður Arnarson, CEO of *Landsvirkjun*

*"I want to say that we respect those views and take them into consideration in all our work and are always emphasising our research and monitoring of the area, but*

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<sup>9</sup> *Floating signifier* is a term belonging to the ongoing struggle between different discourses to fix the meaning of important signs (Jørgensen & Phillips 2002, 28)

*for now we do not evaluate the circumstances as such that they require a new EIA but these things are under constant revision” (Víðsjá 2013)*

Pálmar Óli Magnússon, executive vice president of project planning and construction division at *Landsvirkjun* is not sure about the consequences the proposed power station might have:

*“I am not a specialist in these matters but our specialists have been in this discussion in the science community and the local community. There is nothing certain in this world; there are no certainties about what influences utilization of the geothermal tank will have in the end. It is clear that all intrusion on nature will have some influences. It is our assessment that those influences will be insignificant. Of course we have our arguments for that and are monitoring what is measurable and are really conscious about people’s worries and those are our worries as well. We have no interest in utilizing Bjarnarflag with negative impacts on the environment” (Magnússon, 2013)*

The fact that *Landsvirkjun*’s representatives acknowledge that the consequences are not known and that their concerns for the environment are to a great extent makes it sound puzzling that they are not ready to undergo a new EIA to eliminate all doubt.

Unnur Birna Karlsdóttir, Doctor of History, states that although *Landsvirkjun* has been doing research in the area:

*“There is an enormous dissatisfaction with the research factor. What environmental impacts the power station [Bjarnarflag] might have are still not certain” (Karlsdóttir, Víðsjá, 2013).*

Similarly, the director of *Landvernd* (the Icelandic Environment Association), says that:

*“People can argue back and forth if the geothermal power station in Bjarnarflag will have any effects on Lake Mývatn but compared to other parts of the country, I can’t see why it should not have any effects since geothermal power stations have been doing that elsewhere” (Guðmundsson, Víðsjá, 2013)*

Even though there are uncertainties some people do not worry about them as the district administrative officer in *Skútustaðahreppur*:

*“No the EIA does not concern me. It was done according to all legal frameworks valid at the time and it is in the hands of Skipulagsstofnun to decide if the EIA should be repeated”* (Valgeirsdóttir, 2013)

That does not seem to be right. It would be in the hands of *Skipulagsstofnun* to ask for another EIA if constructions would not have started within ten years of the first EIA. Since *Landsvirkjun* has started constructions in the form of preparation constructions it is on their hands to decide if they want to redo wholly or parts of the EIA according to a representative from The Environment Agency of Iceland:

*“It is now in the hands of Landsvirkjun to decide, in light of new information, whether another EIA will be conducted to make sure that things are done in an appropriate way”*

A biologist and specialist at the Natural Research center at *Mývatn*, which has dedicated much of his life work to the area states that:

*“I think it’s safe to say that all geothermal areas that are utilized in any way cool down. Energy is being extracted from the system and the heat is being utilized. A cooling in the area can be expected and thus less flow of silica to the water. There have not been conducted any researches, how much cooling would take place and what consequences that would have on the flow of silica to Lake Mývatn”* (Einarsson, Víðsjá, 2013).

As stated earlier, silica is one of the foundations for the ecology and biodiversity in a complex chain of life at Lake *Mývatn*. *Landsvirkjun* has ideas on how to address this problem but the executive vice president of *Landsvirkjun*’s R&D division says that:

*“Current provision is that all waste water will be pumped down, if people are seriously concerned about cooling, it would of course be possible to release some hot water on the surface as a counterbalance” (Sveinsson, Víðsjá, 2013)*

According to a report that covered five years of monitoring and research, there is waste-water from *Nesjavallavirkjun* geothermal power station streaming into Lake *Pingvallavatn* (Rúv, 2013c) and according to provision made by *Skútustaðahreppur* district council, no waste-water is to be released on the surface (Sveinsson, Víðsjá, 2013) so surely there is an unknown factor there in regard to effects of the pumping on heat, silica flow and contamination in Lake *Mývatn* that *Landsvirkjun*’s specialists have not found solutions to.

*“One thing that I notice is how to a great extent we put our trust on technology. All problems are to be solved with technical solutions... that is not convincing, the examples have showed that we do not control nature and how it behaves, except up to a certain extent, and then there are always the uncertainties” (Víðsjá, 2013)*

*“What I think is important is that wastewater will be researched and how it will be treated. It has to be made sure that it doesn’t flow into Lake *Mývatn* and I believe with all the technology available today that it can be accomplished” (Debbie, 2013)*

Some people seem to trust that technology will solve the problems while others are breaking out of the perception that solving the problem lies with technological solutions.

*“There is this image problem of geothermal power stations, they are not the clean energy we’ve been told they are” (Karlisdóttir, Víðsjá, 2013)*

The district administrative officer’s answer on comparing *Gljúfurversvirkjun* and *Bjarnarflagsvirkjun*’s possible impacts on the society with regards to sustainability was that:

*“I think it’s hard to evaluate because we don’t know anything, really, because sustainability is of course about a financial factor and I can’t imagine what financial interests would have been if Gljúfurversvirkjun would have been built, what assets that would have created for the society. If the geothermal tank underground will renew itself, it is an active geothermal area, so it has not cooled down and with regard to these factors, human, financial and nature, I believe Bjarnarflagsvirkjun to be sustainable” (Valgeirsdóttir, 2013)*

The perception of sustainability of geothermal power stations is evident on the local, national and global level as discussed before. Some scientists do not agree on that:

*“In international context geothermal heat is classified as a renewable energy and the same can be heard in public debate in Iceland. With a closer look that is not at all the fact. A probable reason for this classification is that utilization of geothermal energy is only at a small extent world wide compared to other sources of energy and therefore it is forced into a classification where it does not belong” (Pálmason 2005, 76).*

A spokesperson from the Icelandic Environment Agency replies to the question if sustainability can be defined in terms of 100 years as *Landsvirkjun*’s definition is based on:

*“There is a big emphasis by the authorities and the energy companies to advertise geothermal power stations as green energy and promote themselves in that way. There are many sides on that matter, this is causing environmental impacts and is not an infinite resource. I do not see 100 year utilisation period as sustainable. In my mind sustainability is defined as the resource will be useable for future generations, not generation but generations. 100 years in that context is a short period when discussing sustainability. Those are all models and calculations of how big the supply is and how long it takes to renew itself. They have calculated how long it takes the area to recover after aggressive utilization. If the aggressive utilization takes place for 100 years and the geothermal tank is emptied, it could take several hundred or a thousand years for it to recover. I cannot define that as sustainability”*

*Landsvirkjun*, however, states that they utilize geothermal energy in a sustainable manner (Landsvirkjun 2012, 3)

*“I believe that Landsvirkjun’s image will improve with Bjarnarflag. We prove that it is possible to utilize geothermal heat in a adequate manner in an area which is at the same time a natural reserve so that will have positive impacts on Landsvirkjun’s image”* (Magnússon, 2013)

Some people want to put emphasis on the societal factor of sustainability:

*“I feel that in the discussion of sustainability people tend to forget that humans are a part of nature and humans have, no less than nature, right to survive”* (Valgeirsdóttir, 2013)

Competing scientific discourses between intellectuals on green energy and sustainability of geothermal power stations have been prevalent in Icelandic society (Einarsson & Jónasson 2012, 31). What is the public or the government supposed to believe? Whom are they to believe? In this regard it is important to critically analyse where the information is coming from and who could be benefitting from it.

Although something is seen as a scientific truth, one must keep in mind that truth comes with power so there are three elements that should be examined before accepting the truth as novel and true. The scientist holding the truth is merely a person occupying a certain position so the intellectual’s background must be considered, what is his/her class? How is his/her position of life and work, linked to his/her scientific or intellectual position (the research field, to what the person rebels against or supports and economic and political demands to which he/she obliges to). The last point: the specificity of the politics of truth in our societies (Foucault 1980, 132).

Specialists of the energy company are minimizing the possible effects in public debate; emphasis is on economic growth, employment and sustainability while other scientist's arguments stating the opposite are being excluded.

We have been led to believe, and the knowledge has been internalized in us so we have lost a critical stance to it, that economic growth is one of necessities of life. This truth is one of the main nodal points in the discourse of capitalism.

In 1970 and 2013 there seemed to be the same arguments for building a power station. In one of the books used for the analysis there said:

*"Economic life in Northern Iceland and all it's future can not afford that this extremely necessary construction will be halted"* (Jónsson, 1987, 182)

Similarly in 2013, representative from *Landsvirkjun* said:

*"A power station in this area is in close contact with strengthening employment in North-eastern Iceland, especially at Bakki. A power station in the North-eastern part is a prerequisite for industrial development at Bakki"* (Magnússon, 2013)

Other people disagree as two of my interlocutors in *Skútustaðahreppur*. They thought that there was too much emphasis on economic growth.

*"It came into my mind when you were talking of economic growth earlier, I have never met anyone able to explain how that is supposed to work forever. I know an economist but he has never been able to tell me how that concept is supposed to be able to continue endlessly without leading to more and more frightful consequences for human kind"* (Adam, 2013)

*"I just wish that people would stop thinking about everything in regards to economic growth"* (Clara, 2013)



*“In 1970 it seems to me that the company was going to act furiously and do what ever they wanted in the name of economic growth development for the nation and the country” (Clara, 2013)*

*“I don’t see much difference in the two cases. Those are both irredeemable constructions and not sustainable in any way” (Clara, 2013)*

On the national level authorities do what they can to increase economic growth and support FDI with all sorts of privileges for companies willing to set foot in Iceland. Energy companies have withheld energy prices to large-scale industry as private but large-scale industry uses 80% of the energy created in Iceland (SI, 2013). The government tries to attract FDI and large-scale industry to the country offering 100% renewable energy from hydro- and geothermal power stations at a second in the world lowest cost, lowest corporate tax rates in Europe and minimum of red tape in European legislation (Invest in Iceland, 2013). Although the framework agreement was passed as laws, it is revisable every four years so natural resources are still vulnerable for exploitation for FDI. The outgoing government secured a German corporation, PCC SE, some privileges to build a silicametal factory situated 100km from Lake *Mývatn* and which would be secured energy from the geothermal areas in *Skútustaðahreppur* (PCC SE 2013, 5). These matters should be seen in the global context and in previous discussion of Iceland as a semi-periphery.

*“Alþingi has in discussion a bill for laws from the Minister of Employment regarding several privileges because of construction of silicametal factory at Bakki in Húsavík. The state is assumed to provide road connections, give loan for harbour constructions and do an investment agreement with the owner of the company which would enjoy several tax privileges or discounts that are estimated as 100-150 million Icelandic krona per year (660.000-990.000 Euros)” (Víðsjá, 2013).*

There seem to be incentives at the national level to attract FDI and create an environment for sustainable use of resources. Does that mean that the locals and the district council of *Skútustaðahreppur* are powerless in their own matters?

*“The executive power (Alþingi) has laid out a plan with the framework agreement but the power lies in the hand of the community. Of course expropriation is possible but that wouldn’t happen if the community council would say no” (Valgeirsdóttir, 2013)*

In terms of this comment the society should have a say in these matter, whether *Bjarnarflag* power station will be built or not. There are warning lights blinking and questions if the community is willing to take the risk. I asked the district administrative officer if she felt that it would be worth the risk to continue and give construction permission to Landsvirkjun despite the unknown effects of their operations and this is what she said:

*“In Krafla they’ve been doing that for ten years, no research has shown that it is affecting the water. So this does not worry me, it really doesn’t” (Valgeirsdóttir, 2013)*

She adds that:

*“I am proud of being from Skútustaðahreppur, I am born and raised here, I have land here and I am proud of being from here. Nobody loves this place more than we do” (Valgeirsdóttir, 2013)*

But still thinks that:

*“If we are to develop like other communities there is always somebody else that rises up against it, not the people here” (Valgeirsdóttir, 2013)*

This answer was in accordance to my interest in the case to begin with. Only people from the outside seemed to be concerned about the matters in *Skútustaðahreppur* and the effects from the proposed power station while the locals were quiet. One of my interlocutors had an explanation of why the locals had not expressed their opinion openly:

*“It is difficult for people to act against this [Bjarnarflag] since it has been in an organized procedure for years and there is nothing illegal going on. The case moves*

*step by step. Then more information pop up and some warning lights appear in regard to air pollution. What will happen to the hot springs east of Námafjall Mountain? Are we sacrificing our groundwater? Do we know that? Is it safe to pump the wastewater back into the ground? The amount of questions increases but we don't get any answers easily so this case is really more complicated. The effects of Gljúfurversvirkjun were more palpable. Maybe it's silly to say this, but although the procedure is open and people have the right to make remarks on it, than maybe they don't have the courage to do so. This is a certain system, you have to write, be formal, dig into the administration and I think that people are not always ready to do so although they are concerned" (Alice, 2013)*

She thought in different terms than just economic growth and employment:

*"Sometimes I try to see the case of utilization of resources with the eyes of those who see nothing wrong with this but I feel it impossible. They simply don't think nature matters. Some people see everything in economic growth and believe that it will make life better" (Alice, 2013)*

With regards to employment in connection with Bjarnarflag power station, there are different ideas prevalent. While Landsvirkjun's representative told me that one or tops two future positions would be created in the new power station (Magnússon, 2013), a local person was expecting 6-8 future positions to be created (Brian, 2013).

The society in *Skútustaðahreppur* has shifted from being a farmer's society in 1970 to be mostly reliant on tourism in 2013. *Krafla* geothermal power station is operated by *Landsvirkjun* and is situated within 10km distance from *Reykjahlíð* village and has been in operation since 1977 (*Landsvirkjun*). There were social disputes around *Krafla* but more importantly about the diatomite factory (*Kísiliðjan*), which was in operation between 1966 and 2004. The disputes over the diatomite factory had negative social impacts on the society in *Skútustaðahreppur* and split the society in two, those who were opposed and those who were in favour of the factory (Adam, Edward, Alice, David, Debbie &

Florence, 2013). The disputes were mainly about the environmental impacts that direct pumping from the bottom of Lake *Mývatn* had on the ecology of the area. A shift in power also occurred when generations grew up used to the factory and people from other places moved into the community which led to the former farmer's society being a minority (Adam, Edward, Alice, David, Debbie & Florence, 2013). The diatomite factory was a workplace employing around 40 people and it had positive financial effects on the society. *Skútustaðahreppur* received percentages of the financial profit from the factory through a special agreement with the Minister of finances since it was a FDI that did not pay taxes in Iceland. The society was run almost without debts and built a school, sports center and a swimming pool for the profits (Valgeirsdóttir, 2013).

When comparing the two events people have different opinions:

*"There are many peculiar things in this matter (in 1970) and how the proposed constructions, which eventually did not take place, were organised. How a private company from Akureyri could move so furiously without having the appropriate permissions. Regarding inhabitants in Skútustaðahreppur, if everything would have gone the worst way, it could have had serious consequences on the ecology here so I believe the bombing to have been justifiable"* (Brian, 2013).

*"The processes today are done legally through EIA and such. The nature always comes first. Actually it has come to a point where nature comes first and humans second or third"* (Brian, 2013)

*"I think that the people in Skútustaðahreppur are afraid. But there is a certain silence there. This is a small community and additionally there were severe and harsh disputes there for years due to the diatomite factory that split the society in two and had severe and bad social consequences"* (Víðsjá, 2013)

*"To be honest I am afraid. I am really afraid of the consequences and for the first time in my life I experience fear towards expressing my opinions on the matter"* (Bertha, 2013)

*“It would serve the cause better if I don’t reveal my position (being against Bjarnarflagsvirkjun)” (Alice, 2013)*

*“I think we are not socially aware. We are all working on different things, each in our corner, but in 1970, those were men and women who were all in a similar position and I think they had a more mutual understanding than people have today” (Alice, 2013)*

To end the section of quotes I will turn again to *Landsvirkjun*’s representative:

*“It is not certain that Landsvirkjun will utilize Bjarnarflag before all permits have been received. Construction- and utilization permit there is. In our mind all prerequisites are at hand for those permits to be granted. But it is not certain yet” (Magnússon, 2013)*

## **Discussion**

The key signifiers I had identified and set up in my interviews shed light on which perspectives people had on the proposed constructions in *Bjarnarflag* and the disputes in 1970. All of my interlocutors saw the actions in 1970 as justifiable since a company from the outside came into the community ready to start constructions without consent from the locals. In 2013 the case was different. *Landsvirkjun* is one of the biggest employers in the community and has been around in the community for close to forty years and they are friendly towards the locals. The dispute is taking place internally and due to a historical context of the disputes over the diatomite factory, the locals are afraid to express themselves openly. The formality of processes today has also strengthened *Landsvirkjun*’s access through an EIA but it is up to them if the EIA will be redone to clear all doubts about the unknown factors.

There is no doubt that the locals in *Skútustaðahreppur* care deeply about Lake *Mývatn*, River *Laxá* and their surroundings and are not ready to accept that any harm will be done to it. Some of the people bear more trust to *Landsvirkjun* and

technology while others want to judge from previous experience with geothermal power stations rather than promises that have not yet any scientific validity.

The inhabitants are in a difficult position where opposing scientific truths and powerful terms of sustainability, economic growth and employment are being introduced to them in order for them to accept the constructions. Being faced with these terms on the local, national and global level makes it hard for them to distinguish what is right and whom to believe.

The critical discourse analysis I conducted revealed that on each level there is a battle between scientific truths that are socially embedded and make the society run as a machine still degrading the environment and causing social impoverishment in other parts of the globe while the emphasis is set on growth.

If that is the case, then sustainable development seems to be nothing but a nodal point of capitalism since environmental protection always seems to fall short in comparison to economic growth and social equity defined in economic terms.

People in *Skútustaðahreppur* that want the power station to be built seem to bear honest trust to *Landsvirkjun* and are stuck in a collective illusion, or truth regime taking place on the local, national and global level. Some are sceptical and do not want to take chances regarding the health of their environment, while others are strongly opposed to the power station and think in terms of a new paradigm, one that has not yet been created.

The fear of power at all levels keeps people in *Skútustaðahreppur* from speaking publicly about their concerns, but as one of my interlocutors said: “People will not accept a construction threatening their livelihoods, health and Lake *Mývatn* and River *Laxá*, they will take action”. With that said, people of *Skútustaðahreppur* in 2013 are in my opinion just as likely to stand up for their rights and their environment as their ancestors did in 1970 judging from how the area forms their self-image and how closely connected they feel to nature. As soon as there would be any certainties confirming the harmfulness of the proposed *Bjarnarflagsvirkjun*

people would take action. As the matter of the case is complicated in terms of technology, laws and formalities, the uncertainty is the factor that keeps people away from taking action.

## Conclusion

In this analysis I have gone through the historical context of disputes in *Skútustaðahreppur*, analysed local, national discourse on sustainability and FDI and connected these to the global discourses on capitalism and economic growth.

As Foucault stated power is confronted through local struggles and Hornborg's theory of the society as a machine is well applicable in the context of discourses that have been discussed.

Critical discourse analysis of the data suggests that there does indeed exist a regime of truth where power in media and public debate/discussion is found in the form of the nodal points identified earlier.

I wanted to identify what had changed in the 43 years between the two events. As my conclusion I will state that today there are more complicated legal procedures that have to be undergone than in 1970. A company cannot come into a society and start constructions in no agreement with anyone. Today the disputes are internalised in a complicated historical context that involve the disagreement about the diatomite factory and a shift of power within the society. As *Landsvirkjun* has been operating in the society and employing locals for such a long time they hold a certain kind of a power which reveals itself in trust towards the company. The disputes today are also faced with national and global perceptions about the emphasis on growth and the misconception that geothermal power stations create green energy and are sustainable.

The knowledge that comes along with the realization that there exists a truth regime, which is built up on certain scientific truths to sustain it, can be seen as a power to challenge it and break out of it because essentially; knowledge is power.

This research is relevant to Human Ecology as it touches upon subjects in regard to culture, power and sustainability. A critical stand towards a scientific truth and seeing matters from a holistic perspective is a part of the global interdisciplinary approach that human ecology emphasises.

A shift of paradigms, from the hegemonic late modernity and capitalism to an alternative one seems to be what we need, locally, nationally but foremost globally. The hegemonic worldview seems to be slowly losing its status and although no one has yet come up with a better option, the current one should not be excluded from criticism.

The battle for a new worldview and an alternative approach to development has just begun as can be seen by perspectives of some locals in *Skútustaðahreppur*. Acknowledging certain truth régimes, seeing the society operating as a machine strengthened by social relations, dissolving the hegemonic vocabulary of capitalism and taking a critical stance are prominent steps in the right direction. While the locals in 1970 fought against evident misuse of power and for protection of their natural surroundings, the locals in *Skútustaðahreppur* today are fighting perceptions of power, which have been disguised by terms operating in the truth régimes of today.



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Adam, Alice, Bertha, Brian, Clara, David, Debbie, Edward and Florence are pseudonyms for my interlocutors in *Skútustaðahreppur*. The interviews with them were conducted between the 10-14<sup>th</sup> of February 2013 in *Skútustaðahreppur*.

### List of figures

Cover picture. Lake *Mývatn*. Copyright and with permission from Kristján Örn Sævarsson, 2012

Figure 1. Map of *Iceland*. Drawn by author. May 2013.

Figure 2. Constructions at *Bjarnarflag*. Picture taken by author. December 2012.

## Appendix 1

An example of an interview for a local representative

1. Are your ways of living different from what they were in 1970 and did you take a stand towards Gljúfurversvirkjun at that time?
2. What would Gljúfurversvirkjun have changed for the society and what were its supposed impacts?
3. Do you think that there were any interests at stake for people in Skútustaðahreppur regarding Gljúfurversvirkjun and do you believe there are some interests at stake regarding Bjarnarflagsvirkjun?
4. Do you see the actions taken by local farmers in 1970 justifiable (blowing up the dam of Miðkvíslarstífla)?
5. Is there agreement in the county on what decision to take in regards to Bjarnarflagsvirkjun power station?
6. Do you feel that you have received sufficient or insufficient information about the proposed power station in Bjarnarflag and its possible impacts?
7. From whom/where have you received those informations?
8. Do you think that power structures in the society are different from what they were in 1970?
9. What impacts, if any, do you think that a power station in Bjarnarflag would have on the following:
  - a. The society in Skútustaðahreppur
  - b. Flow to the water and its ecology
  - c. The health of residents living close to the power station
  - d. The image of Lake Mývatn and the people of Skútustaðahreppur
  - e. The image of Iceland
  - f. Economic growth
10. Are you familiar with the Diatomite Factory, what impacts its arrival had in the society in Skútustaðahreppur and if people agreed on it?
11. What happened in the society when the factory closed down?
12. How do you see operation of a power station in Bjarnarflag along with other businesses in the county?
13. What does the term *sustainability* mean in your mind?
14. Can you tell me what you consider the main difference of the River Laxá dispute and the proposed Bjarnarflagsvirkjun power station in regards to:
  - a. Culture
  - b. Power
  - c. Sustainability
15. What significance do Skútustaðahreppur and Lake Mývatn have in your mind, what feelings- if any- do you have to the place? Does this in any way form your selfimage?
16. What is nature?



## Appendix 2

Map of Lake *Mývatn*. *Bjarnarflag* is situated in the North-eastern part of the picture, next to where the number 1 is on the road.

Picture taken by author of an information sign in *Skútustaðahreppur*. February 2013

