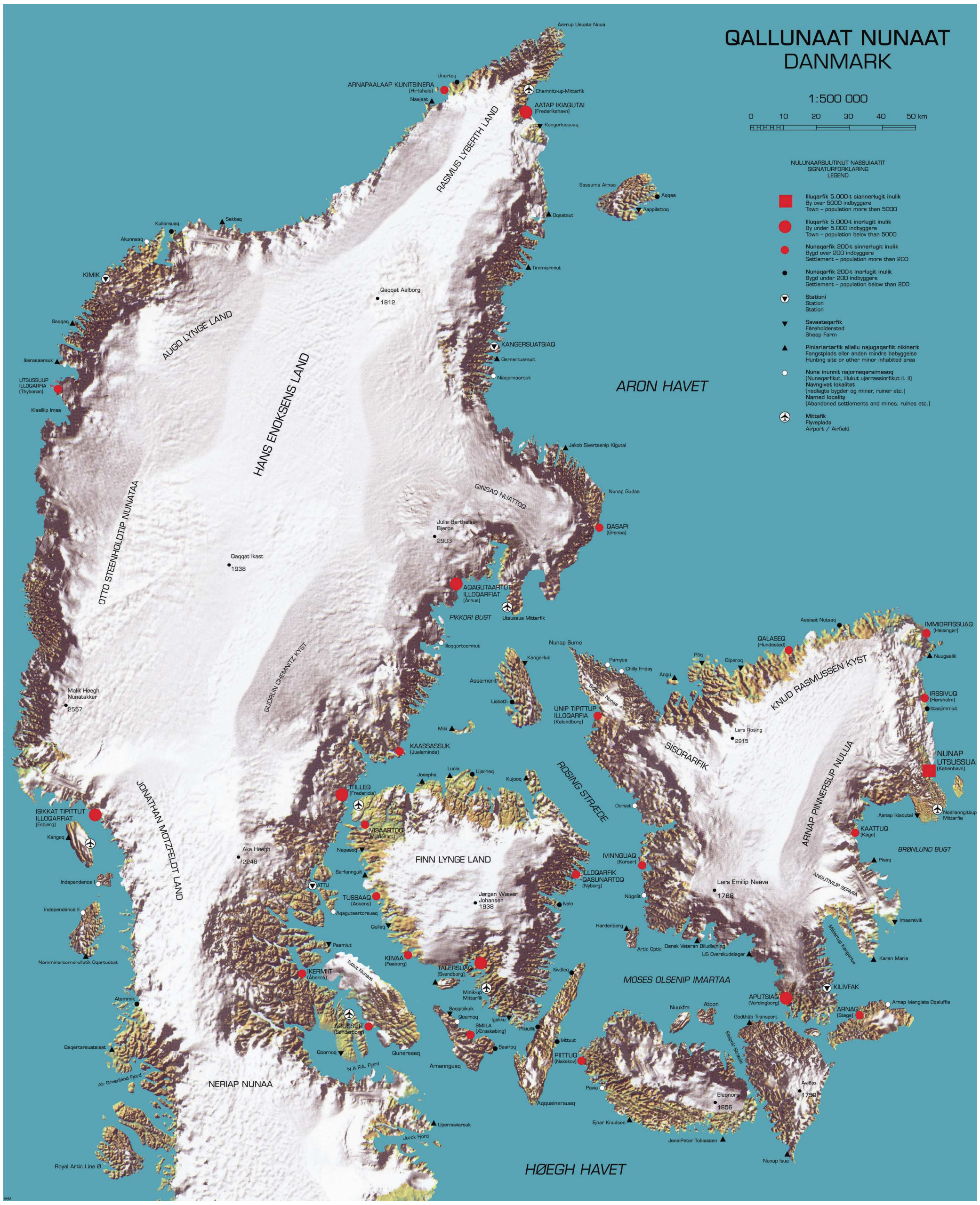
Before the Bonanza: Hydrocarbons in Greenland



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Asmund Havsteen-Mikkelsen *Danmarkskortet* (The Map of Denmark, 2004).

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Big hugs to family and friends.

All clear! Full speed ahead!

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Translations and Abbreviations

It has been my aim to write the thesis in British English. As a rule, all translations to English are mine. Official translations have been used when it was possible. I regarded a translation as official if it came from the source itself, had been commonly translated like this or appeared in a dictionary. Since the majority of the empirical material was in Danish, I experienced an amount of instances where no official English translation was available. All titles and names are presented in the original language with the English translation in a footnote at the bottom of the same page. I have remarked whenever the translation is *not* mine, i.e. when I regard it as official. If no translation appears, the title was originally in English.

One considerable exception is quotations from the group of newspaper articles, presented in 4.4.2, which are not translated by me. The articles, which originally appeared in Danish and Greenlandic daily and weekly newspapers, were translated to English by professional translators. Therefore, the quotations will appear as I read them, in English.

It has been my intention to avoid abbreviations when possible. The few cases where I used one, it was because the abbreviation was commonly used in a way that I considered to replace the full name. Another exception is abbreviations in references. Though the abbreviations are also explained when they occur the first time, they are shown here:

UKG: Udvalget vedrørende tilladelser og koncessioner i henhold til lov om mineralske råstoffer i Grønland[1]

KHG: Kommission om hjemmestyre i Grønland[2]

PC & AGTL: Petro-Canada (PC) & The Alberta Gas Trunk Line Company Limited

Some terms deserve a few explaining words.

The term “exploit” has two seemingly opposing meanings in Danish (and Norwegian). It means “udnytte”, to make use of something, and “udbytte”, to overuse

[1] The Committee of Licences and Concessions regarding the Greenlandic Raw Materials Act

[2] The Commission on Home Rule in Greenland (official translation)

something. I have used it in the first sense. So when I write “to exploit hydrocarbons”, it means something similar to “produce”.

The terms “produce”, “create” and “construct” are all used to describe a processes of change, implying approximately the same. I have tried to use “exploit” instead of “produce” when describing the industrial activity related to hydrocarbon extraction.

The expression “Denmark-Greenland” is taken from Sørensen (2006) and is used to connote the total of Denmark and Greenland, when I do not find it necessary to distinguish the details of their relation.

1.0 Introduction and Research Question

This chapter introduces the topic of the thesis and my personal entrance to it. It describes the central processes that will be analysed and introduces the approach taken to do this. Then the topic is specified and ends as the research question, which to be answered by this thesis. Lastly, the structure of the thesis is presented in a rough sketch.

1.1 It's the Oil, Stupid!

Climate change, peak oil, race for the North Pole, the melting of permanent ice caps, ice-free North East Passage; the headline-making Arctic events are many and visible. Greenland is in the midst of this – geographically, geophysically, legally, economically and politically speaking – and is of many reasons an interesting place to ask questions that might illuminate how these processes can and will proceed. During Greenland's short history of political autonomy many of the forces that shape such events have been played out in the construction of this Arctic nation. Hydrocarbons − a term that captures both crude oil and natural gas − are a crucial component to the course of these events. Hydrocarbons are fossil fuel, a valuable resource, specialised knowledge and a way of life.

In the initial phase of selecting a topic for this thesis, I was fascinated by Greenland as a place where some of the global ecological problems could be observed at close range. It seemed an intriguing paradox that one could promote hydrocarbon extraction and debate harmful consequences of climate change simultaneously. I termed it "the Arctic Paradox" and this was the original title of the thesis. Later I discovered that this double, or parallel, strategy was not as controversial as I first thought.

Compellingly, politically autonomic times in Greenland coincide with hydrocarbon-times. The first influential Greenlandic political formulations concerning autonomy were written at almost exactly the same time as the administrative framework for Greenlandic hydrocarbons was being drafted. The time span of the hydrocarbons exploration activity is roughly captured by the two most fundamental documents in the political history of autonomous Greenland: Hjemmestyreloven[3] from 1978 and

[3] Lov nr. 577 af 29/11/1978; The Home Rule Act

Selvstyreloven[4] from 2009, and the closely related commissioned reports representing years of work leading up to the law proposals.

According to the political visions, the promising geological assessments and the world's projected hydrocarbons demand, we stand on the brink of a new era in Greenlandic history. Again, one could say. Surely, there have been small leaks, promising seismic surveys and favourable geological structures, but during 40 years of exploration history it is an intriguing fact that no commercial exploitable discovery has been made. Hydrocarbons have never been extracted commercially in Greenland. The expected and desired oil adventure has not taken place so far.

Knowledge of hydrocarbons in Greenland precedes Greenlandic autonomy. Reservoirs of oil had been assessed by the geological expeditions from the 1920s and since the legal framework was introduced in 1935 there had also been explorations and surveys on an irregular basis. While this had happened without too much debate, the Home Rule Commission of 1975 was at the centre of heated discussions about the subsurface resources and rights. Gradually it turned out to be the single most important issue, or hindrance, in the Home Rule negotiations (Dahl 1986:64). In fact, hydrocarbons were to become a key issue in the way Greenlandic natural resources were understood and framed.

When exploration wells were drilled in the 1970s, oil spills and blowouts contributed to the idea of hydrocarbons as a dangerous activity, and a threat to the indigenous population and the environment in which they lived. Simultaneously, optimism was spreading and an oil adventure was something that could happen in the north. American companies had discovered profitable hydrocarbon reserves in Prudhoe Bay, Alaska, and Canadian companies conducted promising explorations in the Beaufort Sea. After the Danish, British and Norwegian discoveries in the North Sea in the late 1960s, the oil adventure had come close. Was Greenland next?

Posing this question led me to two large events regarding hydrocarbons in Greenland: The *Arctic Pilot Project* and the *Jameson Land Concession* (see p.73 and 82). While the Arctic Pilot Project was a Canadian proposal of Arctic shipping of liquid natural gas and perhaps crude oil, the Jameson Land Concession was autonomous

[4] Lov nr. 473 af 12/06/2009; The Self Rule Act

Greenland's first real chance to be part of an oil adventure. Who wanted Greenland to be next, was it feasible and what were the hindrances standing in the way?

1.2 The Challenge that Disappeared

From the late 1960s, ethnic or national-minded Greenlandic right claims began to surface. When Greenland's autonomy was negotiated in the 1970s, the management of Greenland's hydrocarbon resources had turned into a Greenlandic political project, which represented a challenge to the Danish administration. It was the vast distances, ice, mountains and fjords of Greenland against small, flat and brown Denmark. There was still something to argue about, still something to be traded. Regardless if the motivation for Danish interests was private economic profit or public savings on subsidies to Greenland, there was a Danish desire in developing the hydrocarbon-fields. Seen from the other side, hydrocarbons were for many people in Greenland the symbol of a threatening, industrial culture. Hydrocarbons could be seen to represent a Danish (partly colonial) modernisation project. If the Greenlanders were given the right to their land and had the autonomy to decide, it was an openly stated outcome that no more hydrocarbon explorations would take place. To many people in early 1970s Denmark-Greenland, it was not a question of how, how much, how fast, when and where, but a simple and clear 'no' to exploration and extraction of hydrocarbons.

As such the struggling positions of indigenous rights claims versus frontier colonialism seemed to be the discourses that initially structured confrontation over Greenlandic hydrocarbons. This central line of confrontation in the Denmark-Greenland relationship was to be transformed in the period of 1975-1985. In the late 1970s, a third discursive position − partly a synthesis of the foregoing indigenous and colonial discourses − was to become the favoured way of understanding the hydrocarbon-issue. Later I will refer to this as *ecological modernisation*: the "politico-administrative" response to "global ecological threats" as for instance global warming or ozone depletion (Hajer 1995, 1996, see p.14). This is seen as part of a larger shift in modernised, western countries, where ecological problems are integrated in institutional arrangements in stead of posing a challenge to industrial development. In our case, one of the most visible consequences of this shift in definitional power was the sudden ability to explain and

justify renewed hydrocarbon exploration in Greenland in the early 1980s. With this, the struggle between contradictory visions of future resource development in Greenland moved towards an end. My analysis shows that at the brink of the 1980s, contours of a new situation appeared, only to become clearer as time passed.

The latest culmination of this change is visible in the Self Rule Agreement between Greenland and Denmark, introduced in June 2009. From a Greenlandic perspective, hydrocarbons extraction was and is tied to ambitions of, eventually, economic and political independence. Thus, as will be explained below, a *co-production* (Jasanoff 2004, 2005) of knowledge about hydrocarbons and nation-building was part of the process. In a decade, the harsh disagreements about hydrocarbons seemed to have been resolved. The challenge disappeared – how did it happen?

1.3 Research Question

40 years of commercial non-existence has not stopped hydrocarbons from playing a lead role in the Danish-Greenlandic post-colonial relationship. Hydrocarbons exist without being accessible. Nevertheless key political aspects of Greenland's development have been influenced by hydrocarbons – as a physical existence and as an idea. The common narratives by which Greenland is imagined and understood depends on hydrocarbons as a scientific fact, an economic prospect and technologies to facilitate their use. On the other hand hydrocarbons have been constructed and framed to serve such narratives. From being a brownish, smelly substance, mere organic waste, deposited below the subsurface, hydrocarbons have become a catalyst of desire and visions. The point is to inquire about what society has done with hydrocarbons *and* what hydrocarbons have done with society.

The question of *how the issue of hydrocarbons in Greenland changed over time?* will be the general approach that defines this thesis. By *the issue of hydrocarbons* I mean the relations in which hydrocarbons have been integrated, both as a part of nature and politics. What have been the challenges of such integration and what have been the responses and solutions?

Of course the question demands further specification and as it was, such specification was shaped by the events and processes I investigated. Around the time where Greenlandic Home Rule was on the political sketch pad, many hydrocarbon-

related events happened closely in time, all strongly affecting how Denmark-Greenland would proceed. The time-frame can therefore be limited to roughly ten years, from the formation of the Danish-Greenlandic Home Rule Commission in 1975 to the finalisation of the first hydrocarbons concession under the autonomous Greenlandic administration, the Jameson Land Concession, in 1984/5.

During a decade, maybe less, I hypothesise that some of the patterns still guiding the management and framing of the Greenlandic natural resources fell into place and became visible as a discourse or a discourse-coalition (see p.21). Furthermore, I hypothesise this change in discourses to have taken place in the early 1980s, in the first years of autonomous Greenland. The aim of this thesis is therefore to analyse the discursive structures of such a change, with a special focus on hydrocarbons:

Q1: How did the issue of hydrocarbons relate to the framing and management of Greenland's natural resources and nature between approximately 1975 and 1985?

Regarding the time-frame, the 10 years in question seemed an obvious choice based on the events referred to in the empirical material. Of course, many structures were visible further back, for instance the first scientific-geological commission regarding Greenland was established as early as 1878 (see p.38). Key legal and political material referred to, such as the Mining Act of 1965 (see p.44), was also introduced earlier. All of section 5.1 and parts of 5.2 will be investigating what led to the situation in 1975. The main analytical emphasis, however, will be on the period in question.

1.4 Structure of the Thesis

Chapter two (2.0 Academic Context) is meant to contextualise the findings of this thesis among the existing academic literature. Chapter three (3.0 Theoretical Considerations) is a review of the theoretical perspectives employed. The chapter outlines the two main analytical perspectives of the thesis: ecological modernisation and co-production. Chapter four (4.0 Method) is concerned with the methodological approach to answering the research question. The definitions of discourse and discourse analysis, the conceptual tools, the collection of data, the process of interpretation and the combination of the

sources are part of this chapter. Chapter five (5.0 Analysis) contains the analysis and composes approximately two thirds of the total length. The analysis is structured chronologically. It begins with a short historical introduction, which emphasises the importance of geology in the framing of Greenland. This qualifies the perspective of co-production. The next section describes the process before and during the creation of autonomous Greenland – the Home Rule process. After this, attention is turned towards two hydrocarbon-related events which are seen as emblematic to the hypothesised discursive change of ecological modernisation. Finally, the chapter tries to analyse how this new discourse can be seen as co-producing science (mainly geology) and the politics of hydrocarbons. Chapter six (6.0 Summary of Results) summarises the findings discussed by each section into a coherent whole and includes a table which present the findings chronologically. Chapter seven (7.0 Conclusion) explains how the findings answer the research question and in which way the hypothesised change is confirmed by the analysis. Chapter eight (8.0 References) include the list of literature and appendixes containing relevant lists regarding the empirical sources.

2.0 Academic Context

In order to situate this thesis among existing research, I will describe the most important works used and referred to and provide an overview of the academic works in related fields. The search for relevant literature took place in the databases of *Bibsys*, which is the public internet portal of institutional libraries in Norway, and *Google Scholar*, the academic internet search engine of Google. Jack Hick's *Selected bibliography on Greenland* (2006), which contains an impressive and comprehensive collection of academic works on Greenland, has also been a valuable source.

2.1 Three Bulks of Research

The relevant literature can be divided into three bulks.

The first bulk consists of the works that share the topic of this thesis: hydrocarbons in Greenland. The research report *Offentlig styring af olie og gas i Grønland*[5] (1984) by Jerome Davies, Finn Breinholt Larsen and Anne Marie Pagh Nielsen, along with related articles (Larsen 1984, Larsen & Nielsen 1984,1985) based on the report, is an analysis of the Danish-Greenlandic handling of hydrocarbon projects; specifically the Jameson Land Concession negotiations 1980-1985 (see p.85). It was argued that the Danish-Greenlandic collaboration rested on an "unstable balance" and that the related administrative and institutional frameworks were downplaying disagreements. This gave the political decisions regarding hydrocarbons a "ritual" character (Larsen & Nielsen 1985:110). It was emphasised that the bureaucrats exercised too large an influence and prepared the cases to avoid political debate. The authors thereby criticised the lack of long term political vision and tangible strategies for an integrated approach to hydrocarbon-projects in the general Greenlandic development.

The book entitled *Politics of the Northwest Passage*, edited by Frankly Griffiths (1987) , includes two articles about hydrocarbons in Greenland. *Greenlandic and Danish Attitudes to Canadian Arctic Shipping* by Lars Toft Rasmussen (1987) points towards a potential shift in Danish-Greenlandic political attitude regarding Arctic shipping. While Greenland received Danish support to oppose Canadian Arctic shipping, its own hydrocarbon-project a few years later seemed to require a similar way of transport. While

[5] Public Regulation of Oil and Gas in Greenland

this could lead to a more "cooperative Greenlandic attitude", Rasmussen suggests that an "ambivalent" policy of opposing Canadian shipping while accepting it in Greenland would create problems regarding the public opinion. Since neither the Canadian nor the Greenlandic shipping was realised, it is still an open question. *Lessons of the Arctic Pilot Project* by Jennifer Lewington (1987) saw Canadian Arctic shipping, specifically the Arctic Pilot Project (see p.73), from a Canadian perspective and analysed why Arctic shipping never became the large scale endeavour it was predicted to be. Lewington concludes that a combination of fluctuation in oil and gas prices and political and environmental uncertainties made the investments seem too costly. In other words: the Danish-Greenlandic opposition is not a decisive factor in Lewington's conclusion.

The Danish journalist Philip Lauritzen wrote extensively on Greenland-related issues and specifically on the Greenlandic society and modern resource development, both as an idea and as reality. Though Lauriten's work is not academic, it is such a great source of well documented information that I decided to include it. His book *Olie og amuletter*[6] (1979) was an attempt to follow the Danish explorer Knud Rasmussen's route from his fifth pan-arctic *Thule-expedition*. On his way through the circumpolar areas, excluding Russia, Lauritzen interviewed a mixed composition of residents, indigenous as well as immigrants. It is clear that Lauritzen himself is very sceptical towards hydrocarbon-exploitation and he points to many of the negative social and environmental consequences. A second book by Lauritzen is *Stille – Isbrydende supertankere: en trussel mod mennesker, dyr og den arktiske stilhed*[7] (1982), which follows the Greenlandic opposition against the Arctic Pilot Project (see p.76). Lauritzen is highly critical towards the project and emphasises the uncertainties around Arctic shipping, which he thinks may turn out sparking an ecological disaster.

Anthropologist Jens Dahl's *Arktisk Selvstyre*[8] (1986) is a historical analysis of the structural processes and the power relations leading to the decolonisation of Greenland. The central question posed is whether "the Home Rule is the beginning of actual self-rule, does is bear the seeds within it – or is it merely colonialism in a new dress?" (Dahl 1986:8). Dahl analyses the internal Greenlandic political process to investigate whether

[6] Oil and Amulets
[7] Silent − Icebreaking Supertankers, a Threat against Humans, Animals and the Arctic Silence
[8] Arctic Self Rule

the Home Rule process is in fact going where it was intended to. The book contains a comprehensive overview over the politics of natural resources from approximately 1975-1985. Besides being a valuable historical work, it also contains some empirical material that I have utilised when needed.

The second bulk of research is characterised by enquiring about relevant historical processes of Denmark-Greenland throughout the 20th century, though not specifically on hydrocarbons. What these works share, is an image of mineral resources as something that has had a prominent position regarding the Danish-Greenlandic view on Greenland's potential for at least a century. The Danish historian Axel Kjær Sørensen's *Denmark-Greenland in the Twentieth Century* (2006) portray Danish-Greenlandic relationship and the historical process. This includes descriptions of the main historical events and the persons who shaped them.

Christoffer Jakob Riis' *Retten, magten og æren*[9] (2003) focuses on a trial between the Danish Geologist Lauge Koch (1892-1964) and a group of fellow Danish geologists. Yet it provides good insights in the geological milieu in the 1920-40s and includes many statements about mineral resources in Greenland.

Finn Lynge's *Arctic Wars: Animal Rights and Endangered Peoples* (1992) provides along with *Selvstændighed for Grønland?*[10] (1999) some of the few relevant works by Greenlandic scholars, with a perspective from Greenland's point of view. Lynge shows how the campaign against seal hunting damaged the relationship between conservationist organisations and the hunting population. Lynge points at the unacknowledged cultural differences between typical urban, western conservationists and the Greenlandic hunter. To him, this prevents the drafting of a common approach to solve ecological issues. In his work on Greenlandic independence, Lynge asks what it would take to make an independent Greenland. Besides discussing some of the huge challenges an independent Greenland would face, Lynge concludes that the political visions have been replaced by everyday problems.

Economist Martin Paldam posed in his book *Grønlands økonomiske udvikling*[11] (1994), a fundamental question regarding Greenland's economic base which has been

[9] The right, the Power and the Honour
[10] Independence for Greenland?
[11] The Economic Development of Greenland

relevant all along: "What does it take to close the gap?" The "gap" is the difference between the Danish block grant and the Greenlandic national product, which is less than half of the block grant. What economic activity can close this? Interestingly Paldam does *not* suggest hydrocarbon extraction as an alternative, because he sees possibilities in what is already there. This has been a key in my understanding of hydrocarbons in Greenland as perhaps more idea than reality.

Writing about the environmental administrational challenges of contemporary Greenland, the Greenlandic planning engineer, Anne Merrild (2008, Merrild & Kørnøv 2008), has focused on technical/legal aspects of natural resource planning preparing Greenland for what she terms a "mega-industry". Interestingly, Merrild explains how the legal foundation of mineral resource project is separate from the general environmental management, which is another sign of the special status given to such projects.

You will also find a few references to Jens Brøsted's *Et beskåret selvstyre*[12] (1979), which provides an investigation of the Home Rule process.

The third bulk consists of research that is not about Greenland, but hydrocarbons in general and the political processes of circumpolar areas. The reason for including this literature is to situate Greenland in a broader context. The research field of region-studies, investigating such processes as regionalism and region-building in the Arctic, is well suited to understand Greenland's political-historical circumsphere and how it was crafted. E. Carina H. Keskitalo's book *Negotiating the Arctic: The Construction of an International Region* (2004) and a related article (2007), on the creation of the Arctic Council, represents a tendency in region-studies where the view of region is that of a socially constructed space. Along with Stokke & Hønneland's *International Cooperation and Arctic Governanc*e (2007), they use the perspective of *region-building*, originally introduced by Iver Neumann (1992). Region-building combines Benedict Anderson's understanding of nation-building (see p.17) with a Foucaultian discourse analysis.

Various definitions of the Arctic and institutions like the Arctic Council imply that attention is turned towards particular issues while others are omitted. Since environmental protection was one of the main ingredients in the Arctic Councils, founded in 1996, the image of the Arctic as a vulnerable eco-system, including the indigenous

[12] An amputated Home Rule

residents, has been promoted. However, since the "normative contributions" of "the Arctic approach, has been far more limited, largely echoing broader international regimes already in existence" (Stokke 2007:182), it seems that some of the geopolitical aspects have been downplayed. What would happen in the Arctic if a large reservoir of hydrocarbon resources became exploitable?

In a Norwegian context such reservoirs, discovered during the 1960s, were to become the single major source of state income: an oil adventure. Several publications scrutinise the contents of this concept. They were included because the Norwegian development has affected, or inspired the Greenlandic situation considerably. Øyvind Ihlen's *Petroleumsparadiset*[13] (2007) is an investigation of the Norwegian oil industries' communication strategies as their self-understanding. Helge Ryggvik's *Til siste dråpe*[14] (2009) is an analysis of Norwegian oil industry in relation to the global political economy of oil. Gudmund Skjeldal & Unni Berge's *Feber*[15] (2009) is a more subjective analysis of the contents of the Norwegian oil adventure. Finally there is Francis Sejersted's *Systemtvang eller politikk*[16] (1999), a historical analysis of how the *oil-industrial complex* developed in Norway and the special characteristics of this development. Common to all four publications is that the oil industry in Norway is seen as a special case compared to other oil-exporting countries. The oil industry is not the only influential perspective. Environmental protection and the general modernisation of society are examples of competing perspectives. Ryggvik and Skjeldal & Berge are critical towards the image framed as an oil adventure. Ihlen and Sejersted are more concerned with showing how the oil industry has permeated many areas which it used to stand in contrast to. The idea that hydrocarbon exploitation can be sustainable, as argued in Ihlen (2007:108) is a good example of this.

2.2 Contextualisation

With this thesis I want to reintroduce the implications and aspects of the Greenlandic hydrocarbon-issue as a subject of debate. However, the thesis cannot be said to adhere to

[13] The Petroleum Paradise
[14] To the Last Drop
[15] Fever
[16] System forced or Politics

one specific field of research regarding hydrocarbons in Greenland, presented in the three bulks above. As the presentation shows, the research question might be more familiar to a region-building approach than to the existing literature on Greenland in terms of theoretical foundation. However, if I was to relate the thesis to analyses of Greenlandic hydrocarbons, the contribution to these would be that the hydrocarbon-issue is removed from its colonial/post-colonial constraints. Almost all Danish literature on Greenland pictures the Danish-Greenland in a colonial framework or invokes metaphors as "parent-child" to describe the relationship between the two nations. There is a tendency to make the issue of Greenlandic hydrocarbons too special in the sense that it is based on a unique Danish-Greenlandic relationship. This is something I have deliberately tried to avoid. Another contribution is to insist on the existence of a Danish-Greenlandic hydrocarbon-issue and of its considerable influence on real politics, even though in terms of quantities, whether barrels or kroner, it is almost non-existing. This is justified by the theoretical foundation presented in the next chapter. Another aspect of the non-existence is that very little research has been done on Greenlandic hydrocarbons outside the natural sciences, which is something I think is regrettable.

3.0 Theoretical Considerations

This chapter describes my theoretical approach to answering the research question. I have interpreted hydrocarbons in Greenland through two related interpretive perspectives. My starting point is that the project of autonomous Greenland changed character in the period 1975-1985, expressed as "the challenge that disappeared" and presented in 1.2.

The first perspective has to do with the way hydrocarbons as an *ecological dilemma* becomes closely related to the management and framing of nature. This is where the discourse of ecological modernisation is relevant, since its manifestation is the "politico-administrative response to the latest manifestation of the ecological dilemma" (Hajer 1996:248). This framework is based on works by Marten A. Hajer, *The Politics of Environmental Discourse: Ecological Modernisation and the Policy Process* (1995) and the related book chapter *Ecological Modernisation as Cultural Politics* (1996), which investigates how ecological modernisation from around 1984 became dominant in western environmental politics. One of the main outcomes was the way ecological dilemmas – for instance acid rain or, presently, climate change – were encapsulated by regulative regimes: instead of posing a challenge to the process of modernisation they became part of it.

The second perspective asks how the autonomous Greenlandic nation and the hydrocarbon-issue are *co-produced*. The interpretive perspective of co-production can be generally understood as "the proposition that the way in which we know and represent the world, both nature and society, are inseparable from the ways in which we choose to live in it" (Jasanoff 2004:2). Therefore it is of interest to know who did the representation of the Greenlandic nature and natural resources – and how it was done. The approach is mainly based on two books by Shiela Jasanoff, *States of Knowledge: The Co-production of Science and Social Order* (2004, edited by Jasanoff) and *Designs on Nature: Science and Democracy in Europe and the United States* (2005). In addition, I have drawn on the works by Kristin Asdal, *Scarce Resources* (Nor. Knappe ressurser) (1998) and the article *Re-Inventing Politics of the State: Science and Politics of Contestation* (2007), which examine different aspects of Norwegian environmental policy in relation to science and technology. Asdal's presentations of various Norwegian cases resemble the view on co-production of autonomous Greenland: "If new objects, issues and realities are generated

in scientific practice, science is no longer a constraint on political action, but may actually produce politics" (Asdal 2007:309). The way Asdal presents the cases is also relevant from the perspective of ecological modernisation, since she describes what happens from the moment an environmental problem, or dilemma, arises until a regulative framework becomes dominant. In relation to the co-production of autonomous Greenland, I use Benedict Anderson's *Imagined Communities* (1991, a revision of the 1983 version), which provides a re-interpretation of the concept of *nation* and suggests the term "nation-building" based on "national imaginings" as a way to describe it. The representations of such common narratives would therefore be of interest to the research question.

The writings of Bruno Latour have been used to discuss perspectives on ecological issues and political ecology, problematising the definition and understanding of ecology in relation to modernisation. This includes: *We Have Never Been Modern* (1993) and *To Modernize or to Ecologise? That is the Question* (1998), in which it is suggested that political ecology has failed to promote their cause, because they misunderstood what ecology was. If this is the case, it might explain some of the change implied by ecological modernisation.

3.1 Discourse of Ecological Dilemmas

The reason for using the perspective of ecological modernisation was based on the impression that the change with and around hydrocarbons in Greenland came very close to the more general description of ecological modernisation. The parallelism of Hajer's theoretical perspective and the Greenlandic hydrocarbons-case was stunning. The situation preceding ecological modernisation fits the discussion on hydrocarbons in Greenland in the 1970s and development of ecological modernisation described by Hajer is very close to the course of events in Greenland.

The perspective of ecological modernisation turns attention towards the way that the hydrocarbon-issue was framed as an ecological crisis, a new ecological dilemma. When did Greenlandic hydrocarbons become problematic and to whom? Hydrocarbons in Greenland exist physically in a place as a part of the (Greenlandic or Arctic) nature. The basic approach is that it is the exploitation − exploration, extraction, production and

transportation − of hydrocarbons that marks the beginning of the hydrocarbon-issue as an ecological dilemma. That such exploitation is closely tied to the development of the modern industrial society is implicit. It is assumed that one can identify two opposing ways, detailed content will be explained later (in 4.2, p.21), to understand nature in the Arctic: as a *homeland*, an indigenous view and as a *frontier*, a colonial view. The views hold rather different and conflicting opinions on nature and the connected rights and resources. Along with other positions, this resembles the situation before ecological modernisation, which in the 1970s was "comprised of a wide spectrum of – often antagonistic – views" (Hajer 1996:248)

Ecological modernisation is a break with the past, because ambitions which were previously seen as antagonistic, economic growth and the resolution of ecological problems become connected. In our case we can substitute these two ambitions with the views of frontier versus homeland. The central thought is that ecological modernisation "recognises the structural character of the environmental problematic, while on the other ecological modernisation differs essentially from a radical green perspective" (Hajer 1996:249). This is a new perspective on the regulative framework of managing the environment since industry is now seen not as an obstacle, but as a driver of green solutions. Captured by the phrase "sustainable development", it is believed that industrial development, ideologically unchanged, can be turned into an ecologically friendly type of growth. The modernisation efforts were expanded to include nature and with an ever increasing scientific knowledge of the eco-system, a regulative regime could secure and control sustainability. Should an ecological problem arise, society would have "to modernise itself out of the crisis" (Hajer 1996:249).

While the new Home Rule administration got into the constraints of everyday political priorities and became positive towards hydrocarbons exploitation, ecological modernisation provides an explanation of what happened. When much of the 1970s discussions on the hydrocarbon-issue implied a 'yes' or a 'no' to exploitations, the early 1980s was a much more blurred image, because no one gave such clear answers. With the perspective of ecological modernisation there is a particular turn in discursive structures that can be identified and help to *un-blur* what happened. This is the first part of answering the research question.

3.2 Co-producing Greenland

The co-production perspective holds the view that the hydrocarbon-issue and the Greenlandic nation might have produced each other: “Natural and social orders, in short, are produced at one and the same time − or, more precisely, co-produced” (Jasanoff 2005:19). As mentioned earlier (in 1.3), hydrocarbons have affected the Greenlandic national narrative by their physical existence and as an idea. The fact that hydrocarbons have never been extracted in Greenland makes this even more obvious. One could argue that the potentially related ecological crisis therefore was not there either. Nevertheless, it is clear that Greenlandic autonomy has a lot to do with hydrocarbons. How is that? This is where I found the co-production perspective relevant because hydrocarbons can be interpreted as more than an ecological crisis.

Regarding the research question, the point is that the relation between hydrocarbons and the framing and management of the Greenlandic nature and natural resources is not a simple one-way relation (whatever that is). The social order of hydrocarbons (for instance an administrative and institutional framework) is understood as being created simultaneous to the creation of knowledge about hydrocarbons as a natural existence (for instance seismic surveys of the subsurface). Of course, this could also affect what is perceived as an ecological crisis. Therefore, as the analysis unfolds it will be important to ask if the process of creating autonomous Greenland redefines hydrocarbons and nature

When Anderson proposed a definition of a nation as “an imagined political community”, he framed nationalism as something creative, to be created, and not a fact or a feeling on waiting to be invoked (Anderson 1991:5-7). Making a nation as Greenland then “crucially depends on deploying persuasive representations of the symbol that signify nationhood” (Jasanoff 2004:26). In a co-production perspective such representations are no less created than the imagined community they constitute: “any nation so conceived can certainly be seen … as a network that is partly held together by circulating technologies of representation and communication” (Jasanoff 2004:26). This turns attention towards the hydrocarbon-issue *and* the Greenlandic nation and how they are interrelated.

Another aspect of the co-production of the Greenlandic nation has to do with the colonial relation. Who or what produced the Denmark-Greenland and could it be that the colonial power is not the only part that creates a colonial relation? In other words: when Denmark abandoned being a colonial power, could it be that Greenland insisted on being a colony? In order to be able to explain the exploitation of hydrocarbons, the Home Rule administration could be in need of such a colonial image.

So, who began to represent hydrocarbons? As a physical existence hydrocarbons are part of nature and can be represented scientifically in research by for instance geology. As an idea, the search for hydrocarbons could be represented by someone concerned by the consequences of exploitation, for instance hunters and fishermen. As Kristin Asdal's (2007) points out in her article on the fluorine-poisoning from an aluminium-smelter in Årdal, Norway, the legitimacy of the opponents' position is strengthened by scientific representation. The contestation of the poisoning, which was discovered by local farmers in the 1950s, was only recognised when a laboratory confirmed and quantified the pollutant. However, Asdal's purpose is not to tell a story about something that was "reduced to numbers". Rather, she understands the case as an example of "how laboratory science and technical procedures *enabled* policy" (Asdal 2007:315). The scientific representation was in this case a creative force, since "political fluorine" as a new political space was made. In this perspective "science is no longer a constraint of political action, but may actually produce politics". (Asdal 2007:309). If this is the case, they boundaries between entities such as "science" and "politics" might be difficult to draw. This example brings us back to the co-production of natural and social orders as mentioned above.

The perspective of co-production points to instances where boundaries of usually separated fields dissolve only to be reproduced. The creation of autonomous Greenland is interesting in this aspect. The nation-building was closely related to the hydrocarbons-issue which again was closely related the discussion of nature in Greenland, hence they were co-produced. Understanding the role of science, and primarily geology, in creating the hydrocarbon-issue as one that influenced real political events could be a good place to begin enquiring about this process of co-production.

3.3 Modernising Ecology

Finally, I will dwell a little more on the content of ecology and nature, since the terms are so central to the theoretical perspectives of ecological modernisation and co-production. Latour's analysis touches on both ecological modernisation and co-production. As the two interpretive perspectives, Latour also sees the tendency of ecological issues becomes increasingly integrated in a general modernisation effort. However, if Hajer asks *what* and co-production asks *how* it happened, Latour asks *why*. The reason it became *modernisation* instead of the intended *ecologisation*, was because ecology did not have "anything to do with nature as such" (Latour 1998:220). So what does that mean?

When the discussions of hydrocarbons become a matter of *this fjord*, *this hunting ground* or *this settlement*, the problem is that it is no longer about ecology. This is interesting since the strongest arguments against hydrocarbon extraction are based on place/culture-specific positions (as will be explained in 4.3, p.24). In our example the Greenlandic hunters could be in such a position. The problem, according to Latour is that the legitimacy of the local-ecological argument is taken over by stronger positions, other *regimes of justification*[17], for instance economic or administrative arguments, because it is not genuine. Arguments from the so-called green parties are caught up in larger constellations when for instances "green products" are presented as part of a sustainable way of life (Latour 1998:223). The argument that economic growth and environmental protection were opposites belonged originally to the green parties. As in ecological modernisation, this line of conflict seemed to have disappeared. One of the results of this was that the green parties lost their exclusive rights to the ecological issue, Latour argues.

To provide an answer as to how this could happen, Latour asks: what if "ecology did not concern itself with nature?" (Latour 1998:227). The point is that descriptions of political ecology rarely fit the practice in which it engages. When the goal is protecting nature for it own sake, this is disturbed by the necessity to make scientific surveys in those areas to justify such protection, for instance to count populations. Or that the claimed understanding of ecological systems, by laws of science, as lists threatened species, is often subject to scientific controversies between experts. If political ecology is

[17] Latour refers to Boltanski and Thevenot (1991, Latour 1998), see also Boltanski and Thevenot (2006), but I wont go into this.

not about nature, what is it then about? The uncertainty about us and our surroundings should be a basic feature of ecology. Doing what is best for nature is more about "suspending our certainties" about what is good for everyone, for human and non-human beings. Like the co-production perspective, understanding the ecological system is just as much about society as nature. If that is the case, a complete understanding of specific ecosystems is not attainable − we cannot limit them. This uncertainty is contrasted by that of a modern administration, described by ecological modernisation, since the creation of a management of nature and natural resources demands scientific knowledge about what is managed. Latour argues that ecology should juxtapose itself to a modern administration of nature and holds the view that "We don't know what is interconnected and woven together. We are feeling our way, experimenting, trying things out. Nobody knows of what an environment is capable" (Latour 1998:231).

While this might sound very confusing, the purpose of turning concepts as nature and ecology on their heads is to look at some aspects of them that might have been concealed. As with ecological modernisation and co-production, a change in the way arguments about ecology are legitimised can be observed, as with green parties, but perhaps the change is not only about ecology. If this is the case, autonomous Greenland is not moving closer to nature by the creation of a Greenlandic environmental regulative framework, because the apparent certainty this implies has nothing to do with knowledge of nature or ecology.

4.0 Method

This chapter explains how the interpretive perspectives of the process in question are to be carried out as a piece of academic work. The theoretical perspectives do make some approaches more suitable than others. Hence it is shown how the choice of a certain view on discourse analysis and following conceptual tools will facilitate the analysis of the empirical sources. Aspects regarding possibilities and limitations of the chosen approach are also described.

4.1 Discourse Analysis

Applying discourse analysis can be done in numerous ways. It is normal to assert the foundational approach to Michel Foucault (Foucault 1972). The analytical stance is social constructivist, poststructuralist or postmodernist (Jørgensen & Phillips 1999:14, Kvale 1997:51). Some things might differ among these, but several common properties seem to stand out. This includes connecting theory to method via conceptions of language, knowledge, meaning, practice and power. The foundational view is identified by Jørgensen & Phillips (1999:13) as four key premises that are typical for the field of discourse analysis: First, a critical approach to common knowledge; second, historical and cultural specificity; third, connection between knowledge and social processes and, fourth, connection between knowledge and (social) agency. It becomes clear, that the purpose is not to look behind the discourse in search of truth; truth is produced within the discourse itself. Truth is negotiated, or fought over, over time. And so it changes over time (Jørgensen & Phillips 1999:23-31). This has implications for the way power is understood as well. Foucault's dual concept of *power-knowledge* builds on the idea that the power to define truth, and thus legitimate knowledge, is defined within a discourse − and vice-versa, because knowledge is itself the force by which a discourse becomes established.

Based on this understanding this thesis understand the concept of discourse in line with Foucault, who treats it "sometimes as the general domain of all statements, sometimes as an individualizable group of statements, and sometimes as a regulated practice that accounts for a number of statements" (Foucault 1972:80, quoted in Mills 2004:6).

My research design acknowledges that discourse analysis is central to the research question of this thesis and as the foundation of the theoretical approaches. There are a number of useful perspectives on discourse analysis. These ranges from quite text specific, linguistic oriented methods, such *critical discourse analysis*, to the more general approaches in which all social phenomena are relevant in principle, exemplified by *Ernesto Laclau and Chantal Mouffe's discourse theory* (Jørgensen & Phillips 2002:24,60). Due to my theoretical perspective, I wanted a definition which did not differentiate language and non-language, and was reasonably specific.

This thesis employs the following definition of discourse analysis: "the examination of argumentative structure in documents and other written or spoken statements as well as the practices through which these utterances are made" (Hajer 2006:61).

A basic assumption here is that language is more than a "neutral medium". Change in language, such as the formulation of problems or of definitions, can induce a change outside language. Social patterns of everyday life can be changed by new ways of thinking and speaking (Hajer 2006:61). In our case, we assume that the way hydrocarbons in Greenland were related to the framing of the understanding of Greenlandic nature, during the construction of an autonomous Greenland, had thorough implications for the residents' everyday life.

While strategic behaviour is thus acknowledged it should also be observed that the politics of definitional conflicts often "*transcend* a simple conflict of interest" (Hajer 2006:66). It is a fundamental view in this thesis that the change which occurred regarding issue of hydrocarbons indeed transcended a simple conflict.

4.2 Clarification of Concepts

To *operationalise* the charateristics of the discourse − to make the methodological approach even more clear (and useful) − a handful of conceptual tools have been chosen to analyse the empirical material (for the process of interpretation see 4.5, p.30). From the understanding of discourse and the definition of discourse analysis given above, it is clear that observing statements/utterances and related practices is the primary way in which we can identify a discourse. As tools to make sense of the heterogeneity of the observation, I

introduce three central analytical concepts, besides discourse, to be described below: *discourse-coalition*, *story line* and *emblematic issue* (Hajer 1995:20,52,65 respectively).

The concept of *Discourse-coalition* is used to emphasise that all the dynamics of a discourse and the persons and institutions taking part in it might not, and usually do not, share the same goals or interests. The coalition shares narratives, story lines, terms and concepts, but coalition-partners might even want contradictory outcomes of for instance a specific political struggle. A discourse can therefore be seen as co-produced by the actors who refer to it. The fact that they have different positions can explain why this way of understanding the world is particular strong and resistant (Hajer 1995:65). Legitimising the exploitation of Greenlandic hydrocarbons might not imply agreement about income distribution and consequences of large-scale extraction.

Story line is short-hand for a larger *narrative*. A discourse consists of many narratives that all refer to same discursive position. A narrative, individual or common, is a way for most people to express themselves and a fundamental way of understanding the world. A story line can be used in statements to point to a certain understanding of a problem. The feature of being a condensed statement makes it easier to see story lines in utterances. When for instance a news paper article is entitled *The Road to Greater Independence Runs Through Jameson Land* (Sermitsiak 1984: Oct 19th), it connects a larger national narrative, by using the story line "the road to independence", with a concrete event, the Jameson Land Concession Project. The approach of this thesis uses the story line as the key concept to understand how actors order the many aspects of a discourse in to a relatively coherent point of reference. While the entire Greenlandic national narrative would make it hard legitimise hydrocarbon exploitation, the story line "the road to independence" seems to manage. This is because it is assumed that a full understanding of the discourse is not needed to grasp the story line. As such, the creation of an appropriate story line is a productive act in itself and might be seen as re-ordering understandings of the discourse (Hajer 1995:55). In this way the story line resemble that of a metaphor by reducing the discursive complexity of a discussion. Some story lines might even gain a "ritual character" because they have been part of a discussion for quite long (Hajer 1995:63). The "road to independence" invokes the idea of a continuous movement towards independence – as a ritual and not as an evaluation of what it would

actually imply for Greenland to be an independent country based on exploitation of hydrocarbons.

Emblematic issue works similar to that of story line, though on a different level. In the present case of hydrocarbons in Greenland, there are several rivalling emblematic issues. The ecological dilemmas are not discussed in their complexities (the entire planet), but are usually separated into smaller bulks. When an issue is debated in public, what is debated is usually a symbolic condensation, an emblem whose value is that it captures something wider and carries a general understanding. If we consider hydrocarbon exploitation it can be framed through the perspective of a pollution threat. An emblematic issue could in this case be a "blowout", for instance the Bravo-blowout in 1977 (see p.60). It could also be framed according to the above story line, "the road to independence", which would imply a less dramatic view on the environmental threats. An emblematic issue can dominate the debate and the understanding of an ecological dilemma. As such it can have a key role in a policy shift. Either way of understanding hydrocarbon exploitation as an ecological dilemma, focus on one aspect out of a complex whole.

As an addition to emblematic issue, I use the term *emblematic events* (see 5.4, p.72). It is assumed that "issue" can meaningfully be replaced by "event". It is used to describe how two events portray a conflicting understanding of Greenlandic hydrocarbons in the early 1980s, and therefore employ different discourses.

Though *frame* is not used as a central analytical tool, the concept corresponds with the theoretical framework, and so is briefly mentioned. To make sense of how these story lines and emblematic issues connect to a larger discursive change is central to the research question. *Frame or the act of framing*, introduced by sociologist Erving Goffman (1974), is a way to understand how many small entities can be ordered in a comprehensive image. What is within the frame is what is seen or mentioned, the outside is irrelevant. What is within is internally coherent, connected and meaningful. When the research question enquires on the framing of Greenland's nature, it therefore assumes that it was framed by *someone* and that the frame is *something* that can be described.

4.3 Two Discursive Positions

This section describes two discursive positions: *Homeland* and *Frontier*. To gain an overview of the vast material available for potential analysis, it was a help to discover conceptual linkages between the various sources, described in 4.4. The difference in formulations between for instance official committee reports and a newspaper articles made it necessary to use a sorting device in the first-hand reading.

In an important report, *Northern Frontier, Northern Homeland: The Report of the Mackenzie Valley Pipeline Inquiry* from 1977 by the Canadian judge Thomas Berger, opinions on the preceding years of struggle over rights and resources in were gathered (Berger 1977). Using public hearings Berger and his staff compiled hundreds of testimonies from a wide variety of people throughout Arctic Canada. Using Berger's concepts, the Homeland and Frontier positions were introduced as an interpretive framework on nature in the Arctic, by Frank Sejersen in *Kampen om naturen i Arktis: Arktiske folk og deres hjemland under pres*[18] (1996)[19]. Sejersen does not use "discursive postions", but "ideologies", to describe the concepts of Homeland and Frontier. However, since ideology in this thesis would disturb the theoretical perspective on nation-building, I shall pertain to the former.

The meaning of a Frontier position is "the geographical place a colonial centre understands as its periphery" (Sejersen 1996:39). The implicit content of the concept is the frontier area as a passive, vast, exploitable area, and the southern colonial power as an active, expanding, intruding and demanding dynamic. The expander, the colonial state, or representatives of it − whether internal as in USA, Canada or Russia, or external as Denmark − seeks to extract all resources that could be of benefit. The frontier is an unexploited resource and the challenge is to make findings large enough to return investment. The frontier is territory; it is a certain conception of nature. The people who lived in it were not really anything else than part of this: *people of nature*[20], as indigenous people used to be called. As Sejersen (1996:42) argues, nature is seen in a modernistic perspective, as something to be controlled and conquered. In this line of thought the

[18] The Struggle of Nature in the Arctic: Arctic Peoples and their Homeland under Pressure
[19] Sejersen descirbes a third position − Wildland − but since this position is not utilised in the thesis, I wont include it here.
[20] Naturfolk

frontier project can be described as ethnocentric and based on the substitution of one culture, the indigenous, with another, the colonial. The pre-Home Rule map of Greenland, and even the map of today, bears the marks of this. The mountains, fjords, settlements, actually most places are named after Danish, American or Norwegian explorers or scientists, or important names of their time (Sejersen 1996:43). Regarding hydrocarbons, the maps depicting the concession area appear as an extreme form of frontier-mapping (see figure 2, p.50). The *concession block system*, which is the way the rights to exploit hydrocarbons is granted, is a division of a petrologically promising areas into rectangular blocks, a grid which can seem to be pulled down over existing landscapes.

The Homeland position is a widely different understanding of the same piece of Arctic Nature. Greenland was a place to someone long before it was discovered. This *terra incognita* was not at all unknown to the Greenlanders; it was their homeland. Understanding "the Arctic as a Homeland", Sejersen (1996:48) formulates a more general mentality that he sees as representative of an indigenous position. Especially indigenous people's relationship to their land is often highlighted as being very different from a western position (Sejersen 2004:71). For instance, experience, knowledge and attachment are conceived in place names, which have a function in everyday life. It is supposed that a modern, scientific, interpretation of the landscape, the use of straight lines etc. does not capture the Homeland landscape. Rather, the landscape is a place of lived experience, a *memoryscape* (Nuttall 1991, in Sejersen 1996:48). The many industrial resource projects are thereby opposed by a rather different concept of place, space and resources. While resource projects are limited in time, it is the people who live in the Frontier/Homeland who bear the social and ecological consequences of the industrial projects when the resource is exhausted (Sejersen 1996:49).

The description of a Frontier mentality emphasises the resource extraction as the primary motivation for the colonial expansion and the Homeland position can be seen as a reaction towards this (Shadian 2006:250). The central argument in this reaction was that the indigenous rights over the land, the so-called land claims, were acknowledged legally. In the perspective, one can understand the initial "challenge" to the Danish management of Greenland's mineral resources, described in 1.2, as a conflict between the Frontier and

the Homeland positions. I will use this Frontier/Homeland conflict-line as a point of departure when trying to understand how the hydrocarbon-issue was debated (See 5.3, p.53). The two positions will also be used in other contexts as points of navigation among a variety of statements.

4.4 Empirical Sources

This paragraph describes the four empirical sources on which the answer of the research question is based. As will be explained later, the aspects of *reliability* and *validity* are important aspects of this (Thagaard 1998:198, see 4.7, p. 32). Tracing documents that are referred to in research from the 1970-80s has been difficult and I have chosen to limit the time use and focus on fewer, but more central reports and documents.

4.4.1 Policy documents

The primary empirical source is official reports, documents and laws. As mentioned in the introduction, The Home Rule Act of 1978 as well as the closely related commissioned reports (Hjemmestyreloven 1978, Kommission om hjemmestyre i Grønland (KHG) 1978a-d), is central to the perspective of this thesis: the co-production of autonomous Greenland and Greenlandic hydrocarbons. When one gets behind the bureaucratic formulations, they conceal quite a vivid discussion. Accordingly, the Home Rule Act can be seen as a point where a very visible struggle took place. As such, it has been a good starting point. Another bulk of reports is related to the management of mineral resources in autonomous Greenland: the administrative body, *Fællesrådet vedrørende mineralske råstoffer i Grønland*[21] published annual reports from its introduction in 1979 (Fællesrådet 1979-1998,1999-2009). I have also drawn on other related ministerial reports and summaries from various conferences published by *Grønlandsministeriet*[22] and *Nordisk Ministerråd*[23] (UKG 1974; Grønlandsministeriet 1978; Nordisk Ministerråd 1987). International legal and political documents, mainly The Law of the Sea (United Nations 1982) and related comments have been necessary amendments to understand the wider

[21] The Joint Committee on Mineral Resources in Greenland (official translation)
[22] Ministry for Greenland (official translation)
[23] Nordic Council (official translation)

perspectives. All of these are presented when referred to in the text and included in the literature list.

It became clear that some aspects of relevant discussions were included in journal articles, but not in official reports. Therefore, detecting such omissions became an important part of the analysis. The official sources hardly ever mention how much an issue was debated, and eventually opposed, in public. In the Home Rule Commission's report it was more the doubt created by fundamental questions such as "what is a people?" or "what does right to land mean?" that were central. The choice of single words appeared to be more important than the 20 pages of explanation.

4.4.2 Newspaper Articles

The second most important empirical source consists of articles from various Danish and Greenlandic newspapers from the period of 1980-1985, contained in the publication *Press Extracts on Greenland*. They were compiled, edited, translated and published at the *Department of Indian and Northern Development* (Press Extracts on Greenland 1980-1985) in Ottawa, Canada, to inform about "Greenlandic subjects which would normally not find their way into Canadian media" (Press Extracts on Greenland 1980:i). Newspaper articles from the largest Danish and Greenlandic daily and weekly newspapers were translated into English and compiled in volumes by various editors. The distribution of selected newspapers is uneven and the principles of selection are unclear because of the official Canadian interests in the background. The state-owned oil company, Petro-Canada, also had interests in the collection. Even though this is alerting, the series is of interest to me because of its many articles categorised under "non-renewable resources" – a natural and perhaps even advantageous consequence of Petro-Canada's involvement. In addition it might also be an advantage that the bias is visible and I can take precautions. Reading all Danish and Greenlandic newspaper articles on non-renewable resources from 1980-1985 could not have been possible within this time-frame, so bearing the bias in mind I have compared with other sources. Over the course of five years it is my impression that the compilation covers the general trends rather well. A comparison in the same period with articles from other papers than those included strengthens this view.

Therefore, I have chosen to use this as my second source of data. Beginning with many hundreds of articles, I began sorting them by content. I looked for hydrocarbon related content, but also content that was indirectly relevant, for instance an article about two geologist's expedition to what they called a "terra incognita" in North Greenland. Thus, drawing on a pool of 86 articles ranging from 1980-85, I analysed the content looking for discourses, discourse-coalitions, emblematic issues and story lines, and grouped these systematically. Besides adding background information, some of the articles include some valuable comments and interviews by central politicians and scientists. As is the case for newspapers, the attention on certain heated topics goes up and down as other issues appear. Bearing that in mind it is interesting to note how some issues persist over many years. Due to my grouping of articles, it was clear that two events continued to create discussion. This was a major help in choosing the two key incidents to analyse, the Arctic Pilot Project and the Jameson Land project. The strength of the time aspect is also visible when comments with years between them are compared and suddenly one realises that something has changed. I have used quotes to point out main arguments in the analysis of the data. Because the authors of the articles are rarely mentioned, the references are not included in the literature list. In stead, the references are found in a list of the articles is included in the References-chapter, Appendix 4.

4.4.3 The Journal *Grønland*

I have used articles from the journal Grønland in the period 1970-1985 as the third empirical source. The journal is composed of between 5-12 issues per year, each containing about 2-10 longer articles. It was founded in 1906 by a group of civil servants working with or in Greenland who formed *Det grønlandske selskab*[24], during a period of severe criticism of the official administration of Greenland by culture-radicals[25] in Copenhagen. From the start until 1953 the society published an annual report and from 1953 a varying number of issues were published each year. The journal never had the ambition of gaining scientific status, rather the purpose of the society and thus the journal, was to inform about and strengthen the ties to Greenland (Jensen 2005). The

[24] The Greenlandic Society (official translation)
[25] Kulturradikale

reason I decided to include the journal is that I consider it to be an important arena of discussion, perhaps more during the period in question than now. In terms of fields represented, this seems to be one of the broadest reaching arenas, where scientists, public officials, academics and politicians among others exchanged views on Greenland and the development in Greenland.

From 15 years of publications I sorted out articles dealing with primarily mineral resources, especially hydrocarbons, but also related to the discussion of Home Rule and other scientific results. This left me with 42 articles, from which I spent most time analysing one fifth of these. I worked my way though the texts much like I did with the newspaper articles. The References-chapter contains a list of all the articles in a separate appendix. The period of 15 years of enquiry gave an impression of how debated topics and the tone of the debate changed. Whereas the toughest discussions concerning hydrocarbons seem to take place in the early and mid 1970s, the 1980s show an increasing amount of non-controversial articles.

4.4.4 Interviews

The last empirical source was interviews with key-players. A key-player is someone who is or has been involved in the relevant processes on a level that gives special insight. The central qualification of a key-player is the quality of the insight and this makes both a few years of specialised experience and long-range association interesting (Harboe 2006:38-39). I interviewed five such key-players, the time of the interviews ranging from 45 to 150 minutes.

I found that the interviews could strengthen my interpretation of the course of events. During the interviews, I explained my understanding and noted the interviewees' reaction and comments. The function of the interviews became that of corrective devices, especially to get an idea about what happenings and events were important and which ones went unnoticed. They served as valuable background information and consequently there are only a few quotes included in the thesis. The interview guide is found in Appendix 5.

I have carried out individual semi-structured interviews (Harboe 2006:42-43). I have used Steiner Kvale's *InterView* (Kvale 1997) as a guide to the methodological and

ethical perspectives of interviewing. Individual interviews were chosen because of the great distances over which the potential respondents are spread. In a semi-structured interview the order of the questions can be partly changed during the interview (Harboe 2006:42), so while my theme- and interview guides were the same before all interviews, the order became varied during the interviews.

Four of the interviews were recorded and transcribed, while one interviewee did not permit this. Instead, notes were taken during, and after, the interview. It was a guiding principle to have a balancing number of Danish and Greenlandic interviewees. After having read some of the central documents of Greenland's political history and systematically noted names of involved bureaucrats, politicians, experts and others, I had a list of approximately 15 names. As said, I interviewed five of the 15: two Greenlanders; with broad experience from Home Rule politics and administration, three Danes; one of them working in the Greenlandic administration. I believe there is an acceptable balance between Greenlandic and Danish interviewees. A more comprehensive list of the interviewees is found in Appendix 3.

Regarding the ethical stance, all the interviewees have been given the possibility of anonymity and the right to review and revise everything they are quoted with. One of the interviewees wished to be anonymous. In the thesis, he is called "a Greenlandic intellectual". I have used a Template of Informed Consent (SPREK 2008) based on the relevant Norwegian acts on science ethics before the interview. All information was given to the interviewees and agreed upon before the interviews. The document is found in Appendix 6.

4.5 The Steps of Work

This paragraph clarifies the circumstances around the formulation of my research perspective and research question. My first readings about Greenland began in the literature about Danish Arctic explorers. From a first fascination followed an interest in the Inuit lifestyle. This turned my attention towards the contemporary Danish-Greenlandic relationship. As mentioned in the introduction, I saw the Greenlandic ambitions of finding hydrocarbons as problematic and paradoxical in the light of climate change. I decided to focus on the time where Greenlandic autonomy was negotiated to

look for explanations. When I began to read about other processes where nature was problematised (for instance Asdal 1998,2007 or Hajer 1995,1996), it occurred to me that what happened to Greenlandic hydrocarbons was in concordance with other cases.

I had a handful of informal interviews prior to the writing. They were not recorded or analysed and their purpose was to direct my attention towards important subjects in order to be able to narrow down the case. I visited persons with knowledge about hydrocarbons in Greenland at the Danish Polar Centre and the Department of Eskimology in Copenhagen and Aalborg University in Aalborg. I also participated in a scientific conference (International Conference of Arctic Social Sciences (ICASS) 6) on related subjects in Nuuk in August 2008.

I began to focus on some central documents − as the Home Rule and Self Rule Acts and reports. A basic discovery at this point was that hydrocarbons extraction, and especially opposition towards it, was somewhat controversial in the Greenland of today. Especially it appeared that the issue of hydrocarbons was still not *really* settled. This narrowed the focus down to hydrocarbons in stead of mineral resources in general. During the informal interviews, it became clear that it is oil, or in our case the inclusive term hydrocarbons, that matters in terms of state income. Crudely put, I was told that mines create jobs while oil creates income.

As described in the introduction it is compelling how political autonomy times in Greenland coincide with hydrocarbon-times. Regarding the timeframe, I still had a 30-year period of interest. It was difficult for me to focus on a specific period since I saw many features connecting the Home Rule of 1979 and Self Rule of 2009. Consequently I moved on with a wide time-frame. It was when I chose to analyse two specific emblematic events, the Arctic Pilot Project and the Jameson Land Concession that the period 1975-1985 stood out.

4.6 Interpretation

With my discourse analytical approach, my concepts and my empirical material, how did I actually extract and the relevant information? Doing discourse analysis, I made sense of the material *ad hoc*, as I gained knowledge of the field. Much like the method suggested by *Grounded Theory* (Strauss and Corbin 1998), my first reading of the empirical

material was with the purpose of extracting a meaningful structure. Contrary to Grounded Theory I had no pre-existing method for extracting information from the material and my approach was based on certain theoretical considerations. The reading was both concerned with the totality and detail. Initially I looked for patterns, systems, internal logic, repetitions, key-words etc. and worked my way through. The overview reading qualified looking more into some paragraphs because they stood out as special in some way, an exercise that was repeated over and over again (See Kvale 1997:201-203).

After the first reading I formed six major categories in which I began to sort interesting statements. The categories changed as more material was read, and some of them proved irrelevant. Having sorted out what I perceived as relevant information from my four bulks of empirical material, I finally selected my categories. An example of such categories is found in Appendix 7. The two discursive positions described in 4.3 worked similar to a roadmap, a simple tool of navigation among discourses. For instance was the choice of the two emblematic events, The Arctic Pilot Project and the Jameson Land Concession (see 5.4), a result of their characteristic appearance in the news paper articles *and* their strong, but different, references to Homeland and Frontier positions.

Finally, the limits to interpretation are an important aspect. Can statements be read "one to one"? Do they say what they say? I mention this because the importance of Greenland in a Danish perspective can be seen in a larger geo-political context. So, when Danish and Greenlandic politicians debate "property rights" to the subsurface, it might not only be a subsurface containing minerals, but also a subsurface containing radar stations etc. I have not problematised these aspects in relation to my analysis, primarily because of the scope of my research question and the time available to answer it. Other limitations to the analysis are mentioned in 4.8.

4.7 Combination of Sources

At this point it would be suitable to explain *why* the above sections were necessary to include in the Method-chapter. The reader should be given ways to judge how and why I came to certain conclusions. To facilitate an evaluation of this thesis is an important part of maintaining confidence in the research. *Reliability* and *validity* are important in all the work phases of academic practice (Harboe 2005:87, Kvale 1997:231).

Reliability refers the credibility of the construction of data. Are the data reliable, and is the use of them reasonable? Would another researcher make the same conclutions from the same material? As touched upon earlier, this type of research has to leave much of the judgement to the reader. It is impossible to test the reliability in exact terms, but by tentative references and substantial quotations one can give the reader very good tools to criticise the analysis (Kvale 1997:202). *External reliability* has to do with the replication of the study and can be aligned with the discussion of *generalisability* (see below). *Internal reliability* is concerned with the process of collecting the empirical material (Thagaard 1998:198). Has the collection affected the ability to draw independent conclusions? Was the research biased during the collection or did the method inflict bias on what was collected? The description of empirical material given in 4.4 was given to shed light on my process of gathering and thereby secure reliability.

Validity − the relevance of the analysis − has to do with the analysis of data. As above, validity can also be seen as *internal-* and *external validity* (Harboe 2005:88). Does the analysis represent the empirical sources in a reasonable way? Do my interpretations make sense to whom and what I have studied? Trying to answer such questions, external validity is about relationship between the analysis and the world around it. The core of the matter is that the categories and description on which the analysis is based needs to be recognisable in relation to "reality". It should communicate or share something with other investigations in the field. As mentioned, I have used the formal and informal interviews to adjust my descriptions of the situations I analyse. Internal validity is the coherence of the steps in the research process and design and has to do with the theoretical and methodological choices. To do this I described the choice of discourse analytical approach in 4.1. A more elaborate explanation of the central concepts used in the analysis was given in 4.2. Finally, in 4.3, I described a discursive framework which has been influencing my understanding of the discursive positions. Securing that the data are valid has largely been part of the collection. Do I have enough information to answer my research questions? I have posed myself this question continuously and have decided to use the material presented in 4.4 (Kvale 1997:232, Harboe 2005:89).

One of the ways, which I have relied on, to strengthen the aspects of the analysis described above, is *triangulation*. Usually triangulation refers to a combination of several

sources − three if one should take the meaning of the word as instructive − and sometimes a combination of qualitative and quantitative sources (Harboe 2005:117, Thagaard 1998:18). The four groups of empirical material − reports/documents/laws, newspaper articles, articles in the journal Grønland and key-player interviews − were chosen to triangulate my data, so possible weaknesses in my conclusion and decisions should be more likely to be uncovered. If I emphasised one event or interpretation as important from one source and it was never mentioned by the others, this should be examined. An advantage with a qualitative approach in this case, however, is that contradictory result can be an interesting sign in itself, and not only a problem. The reason two sources of data present widely different stories can thus unveil something previously unknown or unobserved (Harboe 2005:118). As mentioned the background and contents of this material were described in 4.5.

Generalisability is related to the degree to which the findings can be projected onto other parts of the world. The *statistical generalisability* – the degree to which a study sample can be generalized to a larger population – is a problematic aspect of research dependent upon key insights (Ihlen 2007:19). The chosen methodological approach for this thesis excludes statistical generalisability. But because one has consulted key-players with a comprehensive insight, one might generalise analytically, by claiming that, for instance, the identification of a discourse is common to more people than those interviewed or mentioned. Therefore, a discussion of *representativity* would focus on the analytical bias, for instance crucial aspects that I have not regarded, and not the numerical bias, since no such generalisations are pursued.

The position of the author is not a neutral one. The best one can do is to explain the ingredients of the analysis, show the assumptions and preconditions, and present the analysis as consistently as possible and the arguments as reasonable and clear as possible. The interpretations and generalisations made are mine, in some cases inspired by others (where referred to), and therefore constructions whose legitimacy is to be judged by the reader (Kvale 1997:229, Ihlen 2007:18).

4.8 Limitations and Trails Not Followed

Finally a few words about what this thesis is not about. Concentrating on Greenlandic hydrocarbons and their geographic, geo-strategic, geological, cultural positions *in relation* to Denmark-Greenland means that an analysis of Danish or Greenlandic internal is not my aim. The scope will not be for instance an ethnographic or a political analysis, so I will have to limit myself to situations where interaction between Denmark and Greenland takes place. Likewise, I have not been able to focus too much on the political development itself, as symbolised by the Home Rule and Self Rule agreements. Besides Greenland, other parts of the Danish kingdom, Iceland and the Faeroe Isles have gained independence and autonomy respectively. Though it could have made an interesting case, I will not compare the agreements and historical cases. Regional constellations such as the Arctic Council or the Nordic Council play an important part as a natural background. Also, the people in Greenland share many things with other circumpolar residents and a pan-circumpolar comparison of circumstances and experiences with hydrocarbons could have been fruitful, but is not carried out. A not analysed part the Danish-Greenlandic relationship is an interesting perspective of the way Danish bureaucracy was exported to Greenland in the first years of Home Rule. Lacking administrative professionals, the Home Rule administration was largely built by Danish personnel, with profound implications of course.

The geopolitical aspect was touched upon in 4.6, and while I definitely acknowledge the existence of strong interests that consciously or unconsciously have affected the politics of Greenlandic hydrocarbons, I have not been able to include it in the analysis, at this stage.

Following the technical and scientific knowledge of petroleum, and the concrete translation of this knowledge into other areas, such as politics, would be another aspect in understanding the dynamics of the hydrocarbon-issue. While I have focused on the general role of geology, more technical aspects are not examined closely. I chose not to read and interpret technical documents on exploration and extraction, and concentrated on places where some translation had already taken place, such as the newspaper and journal articles. If I were to take another round on this subject, more technical insight and

tracing the knowledge production from measurements and surveys to politics would be one of the top priorities.

The political economy of hydrocarbons, prominently the development of the world crude-oil price, is already a large field of research. I have tried to include it at a few places, but probably less than I could have. The changes in price can be argued to be a crucial driver of hydrocarbon related activities. On the other hand, as the director of the Bureau of Minerals and Petroleum in Greenland, Jørn Skov Nielsen, informed me (interview with Jørn Skov Nielsen 2009), the huge industrial complexes that exploit hydrocarbons need to look beyond short-term fluctuations in price. What matters is what one expects in the long term. As a consequence, investment in exploration might not correlate with price − which is just one of a large number of hypotheses about the political economy of oil. Considering the scope of this thesis, I found it most useful to use crude-oil price as a source of inspiration, so as to understand political reactions and not to include it as a central analytical feature.

So here we go.

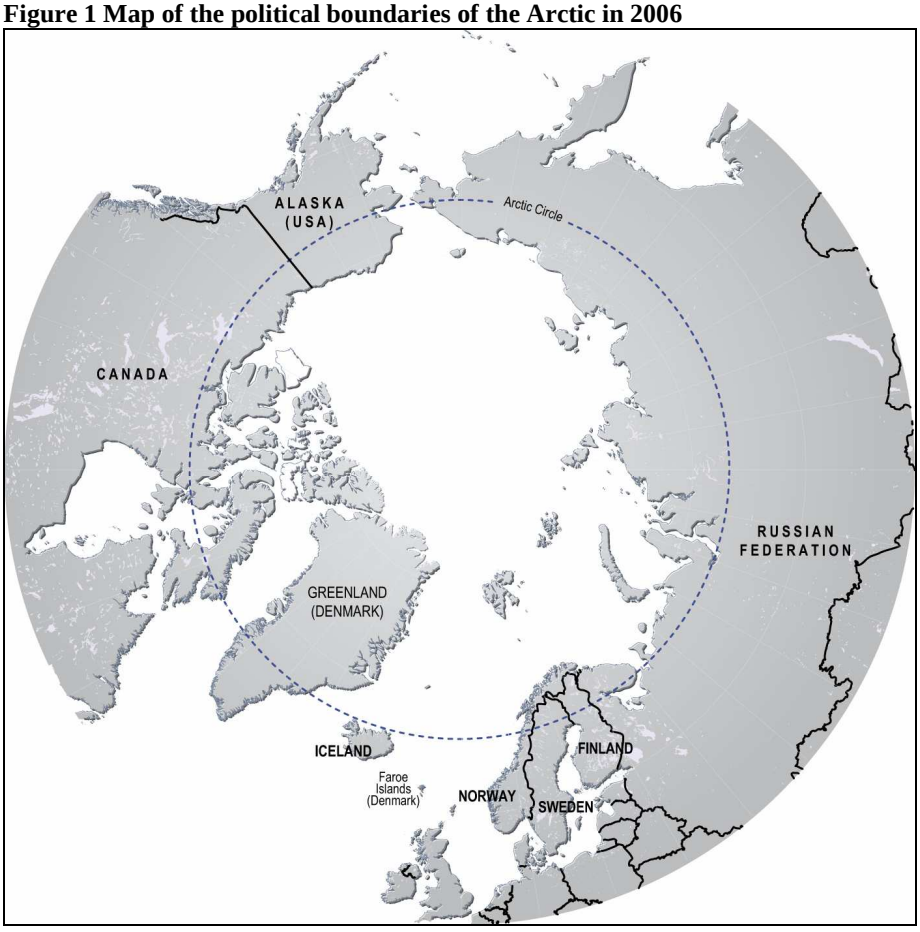
5.0 Analysis

The analysis is chronologically distributed over five sections, 5.1-5.5. Each section is ended by a "Summary and Discussion of Results", which includes a table presenting the relevant emblematic issues, story lines and the main theoretical perspective that was employed.

5.1 The Lottery

The aim of this section is to point out some central historical structures and to start outlining the dynamics of interest. Who influenced the development of the knowledge production − especially concerning hard mineral resources, which later were to become so decisive in the Home Rule negotiations? The section provides a starting point for further investigation.

Figure 1 Map of the political boundaries of the Arctic in 2006



Source: UNEP/GRID-Arendal 2006 (courtesy of Hugo Ahlenius)

5.1.1 The Beginning of Danish Greenland

It is common to assert the beginning of Greenland under Danish rule to 1721, when the Danish-Norwegian missionary Hans Egede headed an expedition to find descendants of the Norse settlers on Greenland. It was believed that they in their isolation had stayed Catholics! The King of Denmark-Norway wanted the Lutheran faith carried across the Atlantic. Egede found no Norse, but began to Christianise Eskimos, as the Greenlanders were called at the time. They were nevertheless regarded by the King as his subjects (Sørensen 2005:11). Gradually, an administration was built, the people were organised and goods traded. Political reform roughly mirrored what happened in Denmark, though with some delay. The relationship between the Danish and the Eskimos was relatively peaceful; it seems that Denmark did not meet too much resistance (Sørensen 2005:169).

From figure 1 it becomes understandable how Greenland has played a strategic, geo-political role. The issue of Greenland received some attention around 1900, when explorers made it known to a wider public, though ownership was still unclear. It was not until Norway, somewhat chaotically, occupied a few patches of land on the coast of East Greenland in 1931, and Denmark filed a case at the International Court in the Hague, that Danish ownership of Greenland was internationally acknowledged. The Court ruled in favour of Danish interests on the 5th of April 1933 (Sørensen 2005:53). That the legal process of 1931-33 took place in financially hard times might have had implications not clear at the time. If Greenland really was "Denmark's big lottery slip" as Daugaard-Jensen, the director of the Royal Greenland Trade Department, put it in 1931 (in Riis 2004:176), who arranged the lottery?

5.1.2 The Geological Colony

In the 1960s international oil companies started to show interest in Greenland because of seismic surveys indicating potential hydrocarbon deposits. However, geology had already been a prominent scientific discipline in Greenland for a long time. By the founding of *Kommissionen for ledelsen af de geologiske undersøgelser i Grønland*[26] in 1878, the mineralogist Frederik Johnstrup and other prominent Danish Greenland-experts formally defined geological knowledge as the main aim of scientific research in Greenland. At that

[26] The Commission for the Direction of Geological Surveys in Greenland

time there had already been profitable cryolite extraction in Greenland for some decades and resulting state revenues were asked to be channelled back into more surveys (Arneborg & Secher 2005:11). Even though many of the popular expeditions had strong ethnographic and culture-radical elements, the professional criteria did not change much (Arneborg & Secher 2005:16). In fact, even though the commission changed its name to the more general *Kommission for ledelsen af videnskabelige undersøgelser i Grønland*[27] the attention was to be turned even more towards geological aspects.

The different, but parallel carriers of two well-known explorer-scientists, Lauge Koch and Knud Rasmussen, personify the situation of early Greenland research pioneers and the change that was to come. While Knud Rasmussen, being one eighth Greenlander and fluent in Greenlandic, was an ethnographer and collected myths from Inuit from all over the circumpolar area, Lauge Koch was a geologist, who focused on the scientific achievements. Knud Rasmussen's interactions with the Inuit made him a very popular symbol of Denmark-Greenland's historical connection and upon his death in 1933 there was a public outcry (Riis 2005:284). It is quite instructive that Lauge Koch in his obituary of Rasmussen, praised him as an explorer, but criticised his scientific achievements (Riis 2005:286). The age of explorers was replaced by the ideal of scientific progress and Dr. Koch was one of the early translators of the Greenlandic geology into the language of western science. During Koch's *Three-year Expedition* in 1931-34 the ambitions were strictly professional and valuable mineral resources were cleverly used as bait for state support. *The lottery slip* was now presented by Koch to the Danish Minister of Finance "to ask him to look well-willingly on the work we have made in Greenland so far, and intend to continue in the future", as Koch confessed in a letter to one of his colleagues, petrologist and mineralogist Helge Backlund (Riis 2005:198). It paid off: Koch's project was financed and the expedition became a milestone of modern expedition technique at that time. The composition of the expedition staff speaks for itself: from a relatively mixed staff of geologists, botanists, zoologists and archaeologists in the beginning, the number of geologists soon tripled and the presence of other disciplines decreased. The change is also visible in the number of publication-pages (Riis 2005:197,204). Yet the influence of geology did not stop here. In 1934 the Commission,

[27] The Commission for the Direction of Scientific Surveys in Greenland

and thus Lauge Koch and other leading geologists, were assigned the highest authority regarding Greenlandic place names. This continued for many years and bore witness to how deeply the image of Greenland was inscribed with a geological perspective. For instance, almost half the place names in North East Greenland can be directly traced to Koch's expedition (Arneborg & Secher 2005:16). Many of these names have later been changed by the Home Rule administration; however it only takes a glance at a contemporary map of Greenland to see their legacy.

To understand how geology's position could continue to be strengthened the way it was, the political context should also be included. That Denmark had increased its exploration activity in Greenland at the end of the 19th century probably has several reasons. Similar patterns were seen all over most of the industrialised world. What mattered was that the Danish state and other sponsors were willing to pay, that it was a national project, and that the link between exploration and science was strengthened. While the former has an adventurous, mostly heroic, storytelling as its end product, the latter has the scientific publication. Explorations of the early 20th century had both (Riis 2005:300). At the time of the East Greenland dispute both Lauge Koch and Knud Rasmussen argued the Danish case at the international court in Haag. Since the Danish state had paid large shares of many expeditions to Greenland, this was a service the explorers willingly paid to their homeland (Riis 2005:21,198). It is an ironic addendum that the *lottery slip*-aspect of the geological research was to imply a temporary halt in Koch's grand plans for further expeditions in East Greenland throughout the 1930s. The Danish Government feared that a large discovery of for instance gold, would threaten the fragile Danish sovereignty over Greenland (Riis 2005:202). Employing the co-production perspective, we note how the relationship between science and the valuable resources bounces back, or works both ways. Who is whose tool − or who is co-produced − is dependent on the perspective. While Greenland was framed by the geologists focus on mineral wealth, it also affected geology in Greenland, since the existence of a resource potential became the official reason to maintain scientific activity.

5.1.3 First Signs of Texas

Throughout the 1930s, a bitter conflict between Dr. Koch and other parts of the Danish geological milieu developed. While Dr. Koch continued his research with an internationally mixed team of scientists, the mainly Danish opponents of Koch were to form the organisation that later would become the state agency *Grønlands geologiske undersøgelse,* or the *Geological Survey of Greenland*, which was established in 1946. In the end of the 1930s Koch's opponents turned their attention to the geographically much less known West Greenland. Again, the mineral resources were an argument for the scientific activity. As one of the scientists said: "We *have* to know, what valuable raw materials are hidden in the Greenlandic mountains" (Riis 2005:316, , author's italics). The difference now was that the resource in question was hydrocarbons, or in this case: oil. In 1939, the leader of the expedition described some of the results from the expedition, among others a silt-volcano emitting oil-mud into a river: "The phenomenon is exactly the same as in the oil district of Texas" and "while we are optimistic, one should not expect to discover a new Texas. Still there are many indications of large oil deposits" (Riis 2005:318). Naturally the public was intrigued by such a comparison. It is noted that the existence of hydrocarbons was indicated, but not promised. As such, the scientific results appealed to the public imagination by framing the potential of Greenland in a certain way, but to know more about it, more research was needed. As the analysis will show, this resembles a pattern to be repeated by later constellations of science in the co-production of Greenlandic hydrocarbons.

The oil adventure in Texas apparently had the ability to inspire dreams of Greenland's resource wealth. A few years before the reference to Texas, the legal foundation had been written. It is quite common to set the beginning of Danish mineral resource extraction to 1932 when the introduction of the first legislation of the Danish subsurface was made. It was extended to cover Greenland in 1935. The legislature was a general act allowing the state to award licenses (Larsen & Nielsen 1985:98). Therefore it is interesting that the situation in Denmark was so different. At the time it was not believed, at least not at state level, that the Danish subsurface contained any economically exploitable resources. (Flint-Stephensen 1980).

5.1.4 Knowledge Production during Decolonisation

After World War Two Greenland's economic and industrial status came to the attention of Danish policy-makers. The time was characterised by an optimistic belief in planning and large government schemes, reports and investments were launched in the 1950s and 60s, notably devised by the so called Greenland Commissions[28] of 1950 and 1960. The heavy investment from the 1950s and 1960s had transformed Greenland to something quite different from the Inuit settlements in Canada. It seems that Greenland was 20-30 years ahead in terms of western standards of living and welfare services (Paldam 1994:139). Formally a big shift happened through the revision of the Danish constitution in 1953. Integrating Greenland as an equal part of Denmark would abolish the colonial status and thereby remove Denmark's obligatory reporting to the UN as a colonial power. The change was written into the Danish constitution and decided by popular vote − in Denmark. Because the Greenlandic politico-administrative body, the provincial council[29], did not deem it necessary, the Greenlanders were never asked. Though the "missing referendum" created some doubts in the UN forum, an acknowledging resolution was finally carried out in 1954. From this year the provincial councils could appoint two members of the Danish parliament (Sørensen 2005:109-112). However, as Jens Dahl writes "one can characterise the historical development in Greenland from World War Two to the introduction of Home Rule as a formal rather than a real de-colonisation" (Dahl 1986:45). It is characteristic that the highest ranking Danish official in Greenland until 1979 was called *Landshøvding* (Sørensen 2005:170), drawing on the Indian *chief* as *høvding*, it translates as *country-chief*, a somewhat strange title for an official in an, at least officially, equal part of the kingdom.

Based on a report of 1950 by the Greenland Commission, the predecessor of the Ministry for Greenland, it was decided that scientific research in Greenland should not be directed any longer. The scientific disciplines should no longer be part of large integrated expeditions; the age of explorers was definitely over. However when one looks at the distribution of publications it is clear that geology still remained one of the dominant disciplines. In 1975 scientific coordination was reorganised to include more emphasis on

[28] Grønlandskommissionen
[29] Grønlands Landsråd

communication and presentation to the public. The composition of the commission was influenced by the Greenlandic and the Danish parliament, even though there were not many Greenlandic researchers at that time. When the Ministry for Greenland was closed down in 1987, the Danish Polar Centre established in 1989, and the Greenlandic Home Rule seemed to work, the position was more neutral (Arneborg & Secher 2005:17-20).

5.1.5 Summary and Discussion of Results

One issues stand out as emblematic when looking at hydrocarbons before the 1960s: The East Greenland occupation that made its way to the international court. The aftermath of the East Greenland occupation legalised the Danish sovereignty, in 1933, over the entire Greenland and thus made all resources in Greenland part of Danish legislature. The discovery of oil-mud on a scientific expedition is important because it shifted attention from hard to soft minerals. The geologists could now provide knowledge of the resources that later was to become so defining for modern developments.

Yet while hydrocarbons played a role in relation to Greenland, they were never believed to have the huge potential later given to them in the Home Rule debate. Nobody questioned the legitimacy of the Danish rights to extract resources from their colony. Greenland's resources were used as bait to fund scientific expeditions. The phrase "lottery slip" is a story line that immediately revokes connotations of adventure. In combination with a comparison of Greenland and Texas: "same phenomenon as in Texas", this gives a central role to hydrocarbons as an oil adventure.

Regarding discourse coalitions of interest, geologists and related fields seem to have played a role in defining Greenland that gave some scientists influence far beyond their scientific realm. This includes the Danish-based, colonial (and post-colonial) scientists, explorers and administrators in Greenland. The combination of research and exploration points to the adventure aspect of the story lines, with oil adventure as the common denominator. This justifies a high level of attention to the role played by science in the construction of autonomous Greenland and its administration. Particularly geology became intertwined with the colonial administration of Greenland. This is strengthened by the establishment of The Commission for the Direction of Geological Surveys in Greenland and the mobilisation of scientist-explorers at the international court in Haag

science. That leading geologists were responsible for the naming of Greenlandic place names is another example of geology's central role.

In relation to hydrocarbons it does not seem that the post World War Two development did much to change the situation. Even though the abolishment of Greenland's colonial status was a big step in political development, the change is not clearly visible regarding mineral resources.

Table 1: Summary of Results from 5.1

Emblematic Issue(s)	− East Greenland occupation in the international court
Story line(s)	− The lottery slip − Same phenomenon as in Texas
Main Theoretical Perspective	− Co-production

5.2 The Last Frontier?

If hydrocarbons in Greenland were merely used as bait in the 1930s, this changed in the 1960s. After the discovery of hydrocarbons in the North Sea it was Greenland's turn. Interest from many foreign companies prompted the Ministry for Greenland to revise the legislature in order to promote this development. This resulted in a much more detailed framework than for the Danish North Sea. What were the factors that made minerals, and eminently hydrocarbons, the central issue of development in modern Greenland? Were did the knowledge come from?

5.2.1 A Comprehensive Thing

It was on a background of general development optimism on behalf of Greenland's industrial future that *Minelovskommission for Grønland*[30] was established in 1960. In its report of 1963 the commission articulated the principles of what would become the first central legal document on hydrocarbons in Greenland. This was *Mineloven*[31] or *the Mining Act* as it will be called here (UKG 1974:12). This act would later become one of

[30] The Mining Act Commission
[31] Lov nr. 166 af 12/05/1965; The Mining Act

the cornerstones in the debate of Greenland's autonomy. In line with ambitions in other areas of industrial development the main intention of the Mining Act was to catalyse private initiatives to explore and extract mineral resources, both hard and soft, in Greenland. Despite the continuous interest and activity concerning minerals in Greenland, it had never become a reliable financial source. During the 1960s things began to happen elsewhere. The first Danish North Sea oil field, *Kraka*, was discovered in 1966 and discoveries continued over the next years. When the *Dan*-field went into commercial production in 1972 it was the first commercial oil field in the North Sea, just before the Norwegian *Ekofisk*. The Danish company *A.P. Møller* had used national-minded argumentation to acquire their sole North Sea concession, but it was foreign companies' attention that convinced the Ministry for Greenland that a more thorough approach was needed in Greenland. (UKG 1974:13-16).

The Mining Act of 1965 began "All mineral raw materials in Greenland belong to the State". This was provocative to those Greenlanders who desired autonomy, not to mention the rights to their land and its resources. While the Mining Act outlined the Danish general perspectives and intentions it was not specific regarding rights to hydrocarbons exploration and extraction. The Danish Ministry for Greenland, established in 1960, had resource exploitation in Greenland as part of its responsibility. To draft a framework for Greenlandic hydrocarbon concessions *Udvalget vedrørende tilladelser og koncessioner i henhold til lov om mineralske råstoffer i Grønland*[32] was established in 1969 (UKG 1974:12). From here on, I will call it *The Concession Committee*. This was new ground for the Danish administration and no one in Denmark really had the necessary experience and competence in the field of managing subsurface mineral resources. But still optimism prevailed: "To make principles and systems for oil exploration in Greenland was *a comprehensive thing*, one could see that" (Interview with Gert Vigh 2009 (my italics), see Appendix 3)

[32] The Committee of Licences and Concessions regarding the Greenlandic Raw Materials Act

5.2.2 Various Geologies

The atmosphere expressed in the multi-disciplinary journal Grønland reflected the optimism regarding Greenland's mineral resource potential. Accordingly, the Permanent Secretary in the Ministry for Greenland, Erik Hesselbjerg, opened an article with: "Today we stand on the brink of one of the most exciting periods in Greenland's most recent history" (Hesselbjerg 1971:65). He described how commercial interest in Greenland's minerals had increased since 1968 and that interest had moved from land based mineral towards including off-shore areas: from mining to hydrocarbons. Industrial activity in Greenland corresponded to the intentions in the Mining Act of 1965, and Hesselbjerg noted that "it would probably be fortunate, if possibilities for large scale exploitation of the Greenlandic subsurface turned up" (Hesselbjerg 1971:65).

Hydrocarbons represented something new, something exiting. Acknowledging that Denmark lacked professional knowledge in the hydrocarbon field, Hesselbjerg welcomed the fact that there were foreign companies – American, Canadian, German, French and Italian – that took the initiative. In Denmark, it was the state-agency, the Geological Survey of Greenland that carried out most of the research about Greenlandic geology. It was from the Geological Survey that all relevant information came when prospects of the subsurface was examined (Hesselbjerg 1971). The Geological Survey had its opinion on the profitability of the deposits, known as "Economic Geology", but maintained its neutral, non-political position. As the state geologist Karsten Secher wrote, "the mapping done by Geological Survey of Greenland is part of the State's general ambition of gaining knowledge about the country's geological composition and history, and as such contributes to the localisation of valuable mineral raw materials" (Secher 1971:14). The director of Geological Survey, K. Ellitsgaard-Rasmussen, and one of the geologists, Nils Henriksen, followed up on Hesselbjerg's 1971 article by outlining the financial shortcomings of a continued large-scale exploration. Out of a long list of research tasks to be completed in eastern Greenland "one of these includes future oil exploration" (Ellitsgaard-Rasmussen & Henriksen 1973:66).

The key to turn optimism into larger state finances could be a comparison with Norway, which recently had begun the production of oil. Ellitsgaard-Rasmussen & Henriksen described the geological situation of East Greenland: the main extension of

sediments – implicitly those out of which hydrocarbons are formed – "are assumed to be similar to those outside the Atlantic coast of Norway, Svalbard and East Greenland". Indicating how the huge hydrocarbon potential of the Norwegian continental shelf had sparked an "intense" survey activity, Ellitsgaard-Rasmussen & Henriksen noted that the sea off East Greenland remained almost un-explored. The "comprehensive thing" is resonating in the background: "The oil discoveries in the northern part of the North Sea has shown which economic and political implications such oil discoveries have". This was Norway's oil adventure. Turning to Greenland and its east coast it was a "plausible geological assessment that this shelf area mainly consists of sediments, just like off the Norwegian west coast" (Ellitsgaard-Rasmussen & Henriksen 1973:68).

This "geological assessment" connects two nation-building processes: Norway, a nation on the brink of an oil-induced modernisation, and the nation of Greenland yet to be defined. The Greenland journal continued to publish articles about the hydrocarbon potential all over Greenland. However, the link to Norway was not only geological. The administrative framework that the Concession Committee drafted for Greenland was largely inspired by Norwegian practice (see p.48).

5.2.3 To Open Up Greenland

As a pretext to the further discussion of hydrocarbons in Greenland it should be noted that what is popularly termed *the first oil crisis* − a result of several Middle Eastern oil exporting countries reducing oil output − led to a quadrupling of world crude oil prices in the course of 1973 (Noreng 2006:26). This naturally affected other oil exporting countries whose state revenues witnessed a dramatic rise. As a consequence, the Concession Committee had to re-write their economic framework. The effects of the first oil crisis will not be analysed, but it can be assumed that, if anything, it did not lead to a decreased interest in the Greenlandic hydrocarbon-issue. As the Concession Committee remarked in its report of 1974: "The expected future oil prices imply that if oil is discovered in Greenland the economic revenue will be considerably larger than under present circumstances" (UKG 1974:5).

With a short article entitled *About opening up Greenland* (Berg 1973) Cand. Scient Hans Berg made a comparison between the situation in the 1930s and the 1970s.

Berg connected the industrial aspiration of the 1930s with ignorance towards Greenlandic opinion on the administration of mineral resource. Has this also been the situation in 1973? In the following journal issue Erik Hesselbjerg was the first to dismiss such a comparison. In his opinion Berg's short undocumented article could give the impression that "the direction is towards an uncontrolled exploitation of Greenland's resources … over the heads of the Greenlandic society". This was not the case, Hesselbjerg wrote and emphasised that it was the "long term, gradual and controlled development" that was the aim (Hesselbjerg 1973a:124). The critical tone was picked up again in a later issue by catholic priest Finn Lynge, who reminded about the Canadian experiences with mineral extraction – this time mining – in Inuit lands. Based on these examples a tough attitude towards commercial interests was necessary, he concluded. The solution was "a ban on fraternising with the permanent residents" (Lynge 1973:165). A rather different position was presented in the next issue, where geological engineer Aksel Mikkelsen – who privately had applied for an oil concession already in 1951 – asked for more state initiative: "at one time or another there has to be drilling … to make clear whether there are possibilities for oil production on Greenland's west coast". Mikkelsen wanted a central administrative unit composed of geologists from the Geological Survey, a legal adviser from the Ministry, representatives from the industry, the Nuclear Energy Commission and the provincial council to "rapidly work out all issues about the best possible exploitation of Greenland's resource to the best for Greenland as well as Denmark". He ensured that "no Dane today thinks about exploiting the Greenlandic resources without the Greenlanders" (Mikkelsen 1973:193).

Hesselbjerg subsequently replied to Finn Lynge's article by stating that "the Ministry has no illusions about the development of mineral extraction in Greenland being unproblematic". Arguing for a "flexible and nuanced" approach, Hesselbjerg disagreed with Lynge about what he termed an "encapsulation policy". Hesselbjerg stated that participation and coexistence was the ambition of the Ministry (Hesselbjerg 1973b:247).

5.2.4 Concessions and Drillings

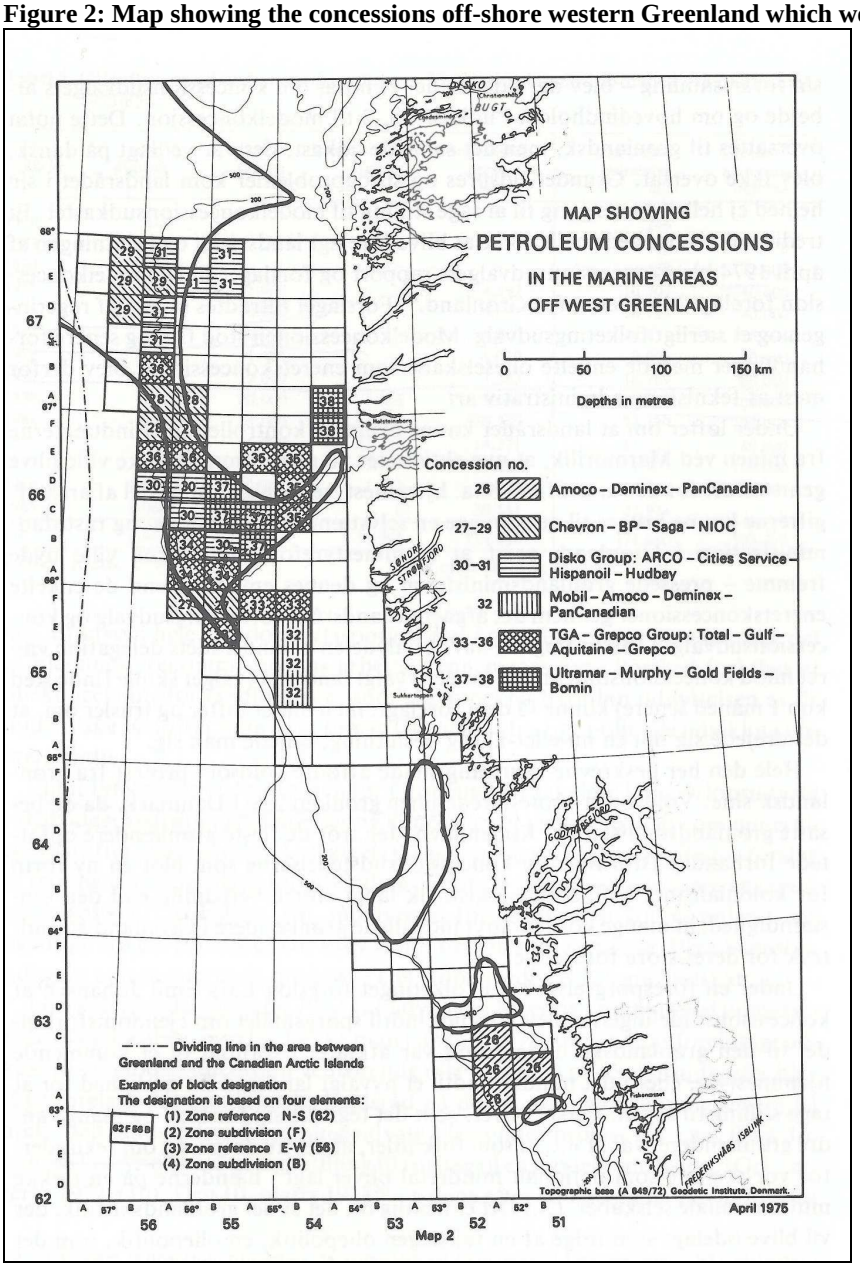
As mentioned above, it was not before the early 1970s, in the wake of the first oil crisis and upon the evidence of the North Sea discoveries, that the Danish state saw the potential for energy supply and state income (Rønne 1986:97). By then it was too late in many respects. Today the sole concession owner, A.P. Møller, still holds the most valuable areas of the Danish North Sea.

This is contrasted by the Concession Committee's *Rapport til Ministeren for Grønland*[33] of 1974 (UKG 1974), which shows that the Danish system was *not* copied in Greenland, apart from a few exclusive 50-year concessions are not counted in. In stead, when several surveys from the late 1960s indicated a reasonable possibility of hydrocarbons in Greenland, the inputs to an administrative framework came from outside of Denmark. It was the impression that the principles of this framework could be expected to play an important role in Greenland's future. Co-author of the Concession Committee's report, Gert Vigh, explains that establishing contact with Norwegian experts was among the first things the Concession Committee did. The visit to the Norwegian Oil Council chairman Jens Evensen was one of the main influences that formed the approach to hydrocarbons in Greenland. Legal foundations and experience from primarily Norway and Canada, but also the UK and the Netherlands, was consulted and so were the relevant authorities in these countries (UKG 1974:1,14). Because of the Danish practice of using 50-year exclusive concessions, there was not much expertise on licensing in Denmark at the time (UKG 1974:14-17).

The basic model proposed, influenced by "the Norwegian pattern", was a *block system* that divided the area in question in rectangular 400 km2 blocks, as seen below on figure 2 (UKG 1974:2). The concessions were given in 10-year periods and were possible to prolong up to 16 years. If discoveries were made it would automatically extend the concession period to 30 years.

[33] Report to the Minister of Greenland

Figure 2: Map showing the concessions off-shore western Greenland which were awarded in 1975.



Source: Dahl 1986:66 (Courtesy of Geodetic Institute Denmark and Jens Dahl)

The decision was made to include three off-shore areas off West Greenland, accounting for approximately 10 percent of the Greenlandic continental shelf accounted for by then. An area in Eastern Greenland, around Jameson Land, and another in North Greenland was mentioned, though not yet included. The Concession Committee determined that "all three regions can be seen as potential oil reservoirs" (UKG 1974:67). The focus was on

West Greenland because it was better known. The outline of the proposed model-concession was to grant the right to explore hydrocarbons and the right to the discoveries within the area and the period of the concession. The conditions included the principles of relinquishment: the concession area would decrease during the 10-year period and the state could freely administer such relinquished areas (UKG 1974:1-6).

Francis Sejersted refers to Jens Evensen as the one who shaped Norwegian oil policy in the 1960s (Sejersted 2006:16). Evensen and his secretary Nils Unsen had from 1963, been trained in hydrocarbon-related legal, technical and economic issues by officials from Phillips. As chairman of the Norwegian *Kontinentalsokkelutvalget*[34], Evensen was able to influence the design of the first Norwegian concession round (Skjeldal & Berge 2009:32, Ryggvik 2009:73-74). In his historical review of the development of Norway's *oil-industrial complex*, Sejersted divides the entire period from the initial exploration until present time in three phases: the enclave-model phase, the "norwegianification"[35] phase and the abandonment of "norwegianification" phase. A main (f)actor in designing the guiding principles of the first phase, the enclave-model phase, was Jens Evensen. In the enclave-model phase industrial development was connected to modernisation of society in general. It was based on a strong connection between state and industry and state initiative could be required if private efforts did not lead to the desired outcome. However, the industrial actors were not to be discriminated by state activity (Sejersted 2006:19). Through "the Norwegian pattern" and the thoughts of modernisation implied by the enclave-model phase, Evensen had the opportunity to affect the main principles of the first model-concession made in Denmark, on behalf of Greenland. The concession was not valid for Danish territory, which was still covered by A.P. Møller's sole concession. It was worked out by a small group of bureaucrats in the Ministry for Greenland. Many things point to a similar approach in Greenland as in the enclave-model mentality. Industrialisation was modernisation and Greenland was to be modernised. Hydrocarbon extraction was from the beginning tied to a belief in the use of such a development to modernise society. This corresponds with Danish ambitions on

[34] The Continental Shelf Council
[35] Fornorskning

behalf of Greenland and later with the Home Rule Government ambitions of a more autonomous economy.

The Concession Committee of 1969 delivered its report to the minister of Greenland in April 1974. Much had happened throughout the five years that had changed the basic conditions of the report. As mentioned, the first oil crisis and the following price increase meant that the economic framework had to be re-calculated. In Denmark, the model-concession had to be approved by the Danish parliament and a parliamentary committee. Greenland was represented by three members in the Concession Committee. In addition the administration of Greenland's provincial council was consulted. If the Greenlanders had disapproved, no formal procedure would have given them access to veto the concession (Larsen & Nielsen 1985:96).

The model-concession was finally approved, though there was not full agreement among the Greenlandic members. A concession round was held, and in 1975, 13 concessions were granted to a majority of foreign companies, as shown by figure 2. This led to the drilling one exploration wells in the summer of 1976 and four in 1977 (Dahl 1986:65).

5.2.6 Summary and Discussion of Results

At this point it is appropriate to pick up the section headline: the last frontier? What seems to be the case is that the Frontier position is implicitly part of much of the argumentation. Finn Lynge's objections are the contours of a more fundamental critique. It is not a question of the development pace, but a question of which type of development is desired. Without exception, the articles by Danish scientists and administrators assume that knowledge production is build on Danish, Copenhagen-based institutions. While most acknowledged the necessity of consulting Greenlandic representatives, the direction of the development was not an issue. "To open up Greenland"; a provocative title, but the attitude can be traced in many articles as an unarticulated theme − like saying 'let's get started'. On this background the Frontier position can be applied within certain limits.

Of course the North Sea discoveries, and especially the Norwegian ones, played a role in raising hydrocarbons to the headlines once again. The Norwegians had shown how it was possible to regulate hydrocarbons, attract foreign expertise and investment, but still

keep a large share of the revenue. The Norwegian nation had been co-produced by hydrocarbons and a "politics of hydrocarbons" was already visible in Norway. If someone mentioned that, for instance, the seabed of Greenland resembled the West Norwegian shelf, connotations of an oil adventure would be implicit − much like the link to Texas in the previous section.

If hydrocarbons activities were to become the new dynamic in the development of Greenland, what was needed more than anything, was knowledge of the area. The Geological Survey of Greenland was a natural choice since state geologists were active in Greenland already. Because of the way the Geological Survey of Greenland positioned itself, evaluation of economically viable reservoirs became a central activity.

The story line "a comprehensive thing" is taken to describe the expectations of the Greenlandic hydrocarbon concession. This includes granting 13 concessions and allowing 5 exploration drillings off the west coast. The fact that the concessions and drillings were opposed is believed to be the beginning of the first broad appearance of a Homeland positions. This will be explained further in the next section.

Table 2: Summary of Results from 5.2

Emblematic Issue(s)	− North Sea Oil discoveries/Norwegian discoveries − The West Greenland concessions and drillings
Story line(s)	− A comprehensive thing − To open up Greenland − The Norwegian pattern
Main Theoretical Perspective	− Co-production

5.3 Negotiating Resources

This section will seek to clarify how the Home Rule process was intertwined with the hydrocarbons-issue. In other words, this section will emphasise how the Greenlandic nation was co-produced by and with hydrocarbons. By initiative from Jonathan Motzfeldt

and the Provincial council, a purely Greenlandic Home Rule committee was established by the minister of Greenland in 1972 and delivered its report three years later (Sørensen 2005:143).

Shortly after the Danish-Greenlandic Home Rule Committee, officially named *Kommissionen om Hjemmestyre i Grønland*[36], popularly called *Hjemmestyrekommissionen*, was established in October 1975. The Danish-Greenlandic commission was granted the mandate to propose a specific legislation regarding a Greenlandic autonomy and therefore its work and report became subject to debates in both Denmark and Greenland. *The Home Rule Commission*, as we shall call it, was to clarify how and whether transferring responsibility − from a Danish to a Greenlandic administration − would be feasible. The Home Rule Commission had 7 members from each part and one chairman appointed by the Minister of Greenland. It was recognised that Greenland had legitimate reasons to pursue autonomy. This was regarded as "a natural consequence of the Greenlandic democratic institutions that has taken place since the 1950s" (KHG 1978b:5). While Greenland's de-colonisation of 1953 had been a Danish controlled and initiated political development from the beginning, this was to change. What we shall term *the Home Rule process* started in the early 1970s, when the Greenlandic ambitions of autonomy began to be articulated and ended with the Home Rule arrangement's formalisation in 1979.

When the Home Rule Commission's report was published in April 1978 (KHG 1978a-d) it included topics that had put a strain on the Danish-Greenlandic relationship (Brøsted 1979:7). The question of the right to the resources was "without a doubt the most difficult and the most decisive test to the Danish-Greenlandic will to continue the common kingdom…" (Lars Emil Johansen in KHG 1978b:14). Apparently, the process of co-production of Greenland and its hydrocarbons did not go unnoticed. Where did the hydrocarbon-issue influence the negotiations more specifically and what characteristics made it different from other topics?

[36] The Commission on Home Rule in Greenland (official translation)

5.3.2 Two Views on Home Rule

In the previous section it was concluded that the Homeland/Frontier positions could be recognised in the discussions. This section will try to assess if they prevail as preferred positions and, if so, in which way. Concealed in the overarching process of co-production to be described, two different views of interpretation on the Home Rule process are introduced. I use these two views to clarify what can be perceived as a double function of the Home Rule process, pointing both backward and forward in time. In this way, the Home Rule process both settles the existing order and suggests the contours of a new one. In doing this, the ground is prepared for the change to come − it forms the basis of the emerging discourse of ecological modernisation.

The first view understands the Home Rule process as a negotiation of issues which were already disputed, most importantly subsurface resources. During the 1970s, such new questions were forcefully brought into the realm of the Danish-Greenlandic relationship and the Home Rule process can be seen as a summary of these debates, which can be roughly illustrated by the Homeland/Frontier line of conflict. In this sense, the process points backwards in time. Where do we observe this in the Home Rule process?

The second view dwells on the outcome of the Home Rule process; the politico-administrative response to the new questions which were raised in this process. The creation of one administrative framework for minerals presupposes that a scientific consensus could be created. Or at least, that the discussion would recognise that a consensus was needed to make it work. The consensus has a name: ecological modernisation. This view on the Home Rule process is more concerned with its implication of the future framework, thus pointing forwards in time. How did the involved parts speak or act under the new institutional arrangements, as compared to the past debates?

5.3.3 First View: New Questions, New Politics

In the late 1960s, a relatively small group of young, educated Greenlandic men began to constitute what could be called a Greenlandic cultural elite. They began to formulate what Finn Breinholdt Larsen & Anne Marie Pagh Nielsen later called “the new politics”

of Greenland (Larsen & Nielsen 1985:99). Influenced by the political thoughts of the 1960s left-wing as they were, familiar with political- and organisational milieus in Denmark, young political voices such as Jonathan Motzfeldt and Lars Emil Johansen formulated the decisive thoughts of "a more Greenlandic Greenland" (quoted in Dahl 1986:46). As a precursor for future political activities the organisation *Young Greenlanders Council* had been founded in 1963. Though they themselves could have been accused of internal elitism, they succeeded in communicating their indignation into a broadly ethnically founded Greenlandic nationalism (Dahl 1986:37). One of the reasons behind the desire of Home Rule, stated by the purely Greenlandic *Hjemmestyreudvalget*, or the *Greenlandic Home Rule Committee*, was that: "Greenland and the country's indigenous, Eskimo population differ from the rest of Denmark in so many ways that the relationship between the Danish and Greenlanders can never be similar to the relationship between Sealanders and Jutlanders[37] (Hjemmestyreudvalget 1975, in KHG 1978:13).

A consequence of the enhanced political activity and consciousness was the appearance of Greenlandic political parties. It is reasonable to indicate that the issue of hydrocarbons was part of the motivation, and the scepticism towards Danish stewardship, as exemplified by figure 3.

Figure 3: The Parca People
− Couldn't the Danish state be entrusted the exploitation of oil in Greenland?
− Would you ask an alcoholic to guard your beer?

Source: Brøsted 1979:56 (Courtesy of Per Danker)

[37] Two regional groups in Denmark

When the Greenlandic Home Rule Committee published their report in February 1975 it called the mineral resource area "large and decisive to a coming Greenlandic Home Rule" (Hjemmestyreudvalget 1975, in KHG 1978:13). A Provincial council member suggested replacing the Mining Act opening sentence with the formulation that "all mineral raw materials in Greenland, and all kind of riches found in our country are owned by the permanent residents in Greenland. Research and extraction of such minerals is the prerogative of the provincial council" (Sørensen 2005:149).

The national and social-democratic party Siumut ("forward") was founded by many of the central Greenland politicians in the Home Rule process. In the first political programme regarding mineral resources from 1977, Siumut stated that "the resource administration shall be moved to Greenland, to create alternative and critical research in this field" and that "some forms of «non-Greenlandic» resource exploitation shall be isolated from the rest of the society" (Dahl 1986:90-91). The moderate and Danish-oriented political party Attasut ("interdependence") was the counterpart to Siumut. The two parties were of the same size and both quite rapidly established local offices in towns around Greenland. Attasut's political programme reflected a comprise-seeking attitude towards the Danish-Greenlandic relationship. Attasut's programme only referred to mineral resources by stating that "the Home Rule shall possess competence regarding the nations resources" and that this competence should be "created in understanding with the Danish authorities" (Dahl 1986:207). The radical leftist Inuit Atagatigiit ("community of the people") was only of marginal influence in the beginning. The party had its background in the *Young Greenlanders Council* which was radicalised during the 1970s with Aqqaluk Lynge as one of the founding figures. In a resolution from 1979 Inuit Atagatigiit stated that: "All oil and hard mineral concessions must immediately be cancelled and the related plans stopped, because of consideration for, and defence of, nature and all its life that is an inseparable part of the Greenlandic people's culture and way of thinking". In addition it should be mentioned that the party's share of votes increased somewhat during the early 1980s and in 1983 Inuit Atagatigiit formed a government with Siumut (Dahl 1986:101,170). In the Danish political landscape, a rather broad consensus prevailed regarding Home Rule and the question of rights to resources.

The only parties opposing to official Danish point of view were on the outer left and right wings and had marginal influence on the course of events (Sørensen 2005:151).

Another sign indicating Greenlandic opposition was the occupation of the Ministry for Greenland by the Young Greenlanders Council in 1975. Symbolically, it took place while the staff was busy presenting the model-concession to the parliamentary committee. The occupants were angry about what they saw as outright colonial policy. This, more than anything, underlined a political shift regarding Greenland in the Greenlandic and Danish public. As mentioned, 13 concessions were awarded in 1975, despite public and political doubts, and 5 explorative drillings were carried out in the summer of 1976-77. As Gert Vigh remarked: "a considerable anxiety about what was being planned began to appear in Greenland, but also to some extent in Denmark" (Interview w. Gert Vigh 2009, see Appendix 3).

5.3.4 A Game of Words

Progress in the negotiations of the Home Rule process included a quite detailed settlement of which rights that belonged to whom. The question was delicate. Would the answer set a precedent and decide the future ownership of presumably huge energy reserves? That the question of resources and rights was important is also immediately visible from the contents of the Home Rule Commission's report. While other areas concerning the tangible aspects of Home Rule introduction are sub-categories that either could or could not be transferred to a Home Rule administration, the raw materials area was a category of its own (KHG 1978a:3). The question of property rights to land including subsurface resources posed serious problems on a principal level. The State Department was asked and two separate reports were ordered by two Professors in Law, Peter Germer and Ole Espersen, who disagreed strongly about the what was the right conclusion (KHG 1978a:18, KHG 1978b:3).

The eighth section of the Home Rule Act covered the natural raw materials area and was the legal foundation of the Raw Material Agreement. The eighth section was motivated by "the acknowledgement of the Greenlandic population's fundamental rights, protecting the interests of the kingdom, the principle of equality and the joint decision-making" and was introduced with the words in subsection one: "The permanent residents

of Greenland have fundamental rights to the natural resources of Greenland" (Hjemmestyreloven 1978).

It was in this context that the phrase "fundamental rights" from the Home Rule Act's eighth section, subsection one, was subject to debate and revisions. The Danish commission member from *Venstresocialisterne*[38], which opposed the report conclusions, Steen Folke, described this in detail. He did not support the conclusions in Home Rule Commission's report. In stead he was allowed to write a minority statement which was included in the report (Folke 1978). Part of the minority statement was used to shed light on the negotiations behind the "fundamental rights" formulation of the eighth section. Folke described how Lars Emil Johansen from Siumut "declared that he was able to accept this solution if the Home Rule Law and the Mining Law stated that the property rights of Greenland's subsurface belong to the permanent residents". This was not accepted by the Danish half of the commission and Folke describes how at the next meeting, Johansen proposed a "flexibilisation" of this formulation by:

> "replacing the taboo word «property rights» with the more imprecise and non-binding «fundamental rights». Even this formulation was not enough for the Danish members. Lars Emil Johansen's proposition states that: «The permanent residents of Greenland have the fundamental rights to the natural resources, including mineral raw materials in Greenland's subsurface». But the Danish members would not accept the phrase «the fundamental rights». Again Lars Emil Johansen had to give in and accept removing the small word «the», before the final compromise was finished on the seventh meeting June 1977" (Folke 1978:106-7).

Folke's minority statement disagreed with the Home Rule Commission in most aspects. The quote provides crucial insights in the process of negotiations.

Political interpretations were debated, exemplified by The Danish Prime Minister, Anker Jørgensen's speech to the Greenlandic National Radio in august 1977. Not mentioning the debated drilling, Jørgensen nevertheless touched upon the hydrocarbons-issue. Emphasising "reciprocal solidarity" he said that "in Denmark it has always been the entire society, not the individual property owner or any local groups, who has owned the wealth available in the subsurface". Though this should not exclude the recognition of

[38] Left Socialists

"special rights" based on "belonging to the land", the common kingdom was the basic unit (Jørgensen 1978:73).

During the Home Rule process, in a debate in the Danish parliament in October 1977, two Home Rule Commission members, the Danish, conservative Erik Ninn-Hansen (ENH) and Greenlandic Lars Emil Johansen (LEJ) of Siumut picked up on Jørgensen's line of argument.

> LEJ: "And Mr. Ninn-Hansen says it is a Danish tradition that one does not grant the property right of the subsurface to individuals or groups. I shall turn the attention to the fact that the issue is not individuals, nor groups. It concerns a people"
> ENH: "It cannot be that one group of people in a part of the kingdom can have some rights, spoken of as property rights, that do not exist in other parts of the kingdom" (KHG 1978b:17-18).

The positions of the debate resemble the arguments in the speech delivered by the Danish Prime Minister in August that year.

The Home Rule Commission summed up the content of fundamental rights in its report at the presentation of the eighth section, though not mentioning the different possible formulations that Folke discussed. It is emphasised that fundamental rights "has the nature of a political statement in principle" and that certain "political-moral demands" are part of it. But, "a strictly legal interpretation cannot be made". These political-moral demands are then asserted as "originating from an emotional cohesion between a population and the land it has lived on in hundreds of years" and that "this cohesion does naturally lead to demands of certain rights not captured by legal language" (KHG 1978a:26).

5.3.5 Blowouts – the Right to Pollute?

Having observed how the issues of the "new politics" were settled in the political negotiations, the issues of ecological concern represent a turning point in an analysis oriented towards the co-production perspective. Since territorial rights issues had been somehow settled, another question concerning rights arose: the right to pollute. Exemplified by the accidents described below, the attention began to turn towards

ecological issues as the legitimising standard. This will be elaborated on in the next section.

In April 1977, the Bravo-platform in the Norwegian North Sea oil-field Ekofisk experienced a *blowout* − an uncontrolled flow liquid of gas from a well sometimes mixed with sand − from one of its production wells. Between 9-20.000 tons of oil leaked into the sea. The blowout was out of control and lasted for more than a week. Luckily, the environmental impact was minimal: half of the oil evaporated into the atmosphere and favourable weather conditions kept the oil away from the coast, allowing for mechanical and chemical treatment at sea (Westergård/SNL 2010, SNL 2009).

In October of the same year, in the Danish sector of the North Sea, an A.P Møller owned oil rig experienced a similar blowout. The rig was located in the Vagn-1 field 10 km from the German sector and was an exploratory well. This time it was gas, water and sand that blew out of the well. The gas ignited shortly after and burned for 12 hours before extinguishing by itself. Again, due to the circumstances it was difficult to portray it as a pollution accident: if oil had been involved, an international effort would have been required. Because it was not required by Danish security standards, contrary to for instance Norway, A.P Møller did not keep any pollution-control equipment on the rig (Bülow 2009, Fischer 1978:63-65).

Many felt that the anxiety addressed in relation to the West Greenland off-shore concessions was justified by the two North Sea accidents. The Bravo-accident prompted both the Provincial council and the temporary Danish-Greenlandic *Styringsudvalg vedrørende mineralske råstoffer i Grønland*[39] − which was responsible for the political supervision of the west coast drillings − to suggest a halt in exploration activities before security issues had been resolved. Yet, the Danish Government decided not to interfere and the exploration drillings continued in the summer of 1977 (Larsen & Nielsen 1985:97).

[39] Control Committee Mineral Resources in Greenland

5.3.6 Second View: Hydrocarbons of Equality

The Greenland autonomy was written into Dansih legislature as *Hjemmestyreordningen*[40], formalised by *Lov om Grønlands hjemmestyre*[41]. I will refer to this entire body of agreements as the *Home Rule Arrangement*. The arrangement was approved by the Danish parliament in November 1978 and accepted by popular vote in Greenland − 73 percent in favour − early in 1979 (Sørensen 2005:151-153). To finalise the Home Rule Arrangement, as I will call it further on, it was necessary to outline Mineral raw materials as a separate agreement, which had been hotly disputed for some time already, as described in previous sections (see also Brøsted 1979:55). Specific details regarding mineral resources were suggested in a separate act which became formalised as *Råstofloven*[42] in 1979.

In total, Råstofloven and the related administrative framework were commonly spoken of as the *Råstofordningen*, or the *Raw Material Agreement* as I will call in from here. The Raw Material Agreement guided all activities which were related to mineral resources in Greenland. As part of the agreement, the Home Rule Commission suggested a joint committee as a forum where projects and decisions could be debated and prepared before presentations to the national parliaments were made. The result was *Fællesrådet vedrørende mineralske råstoffer i Grønland*[43], *Fællesrådet* or the *Joint Committee* (KHG 1978a:66). As shown in figure 4-6, in different versions, the Joint Committee would consist of three-five members from both Denmark and Greenland. The mineral raw materials should be managed by a separate administration – *Råstofadministrationen* or *The Raw Materials Administration* – which would integrate legal, scientific and economic aspects in one body (KHG 1978a:134).

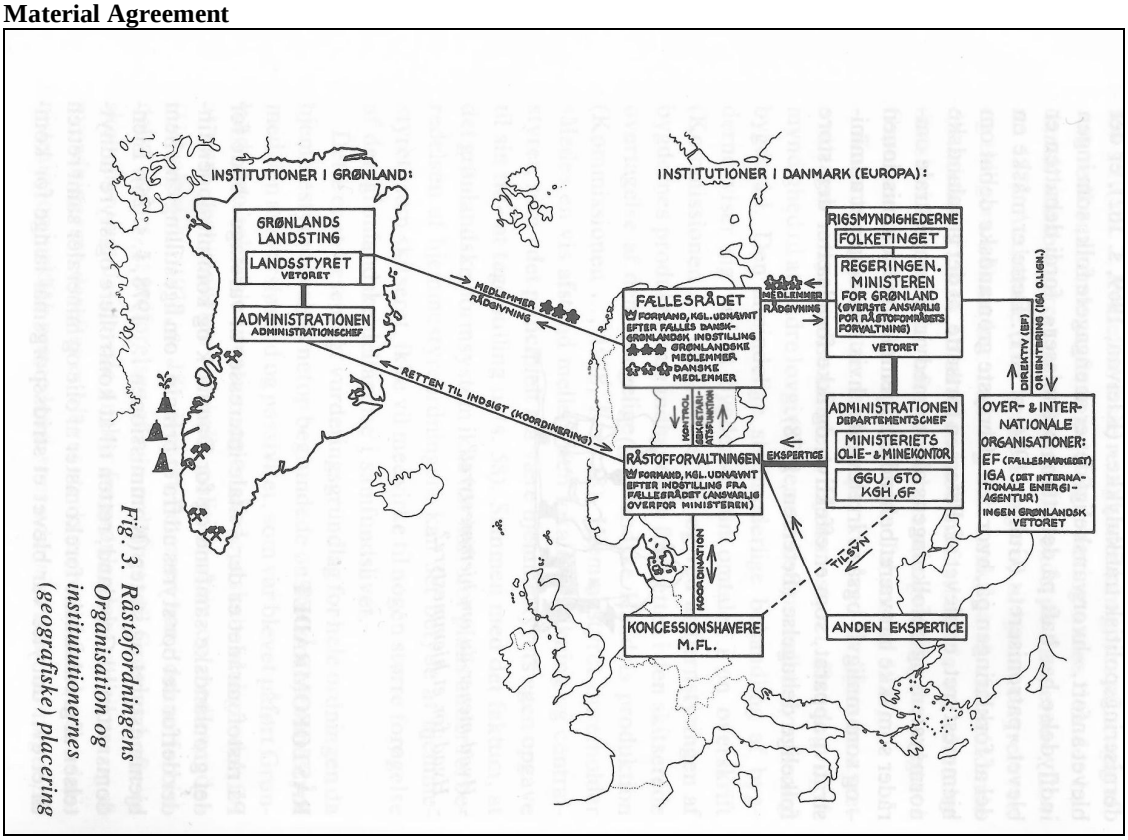
A "principle of equality" (KHG 1978a:25) was a guiding idea that shaped the configuration of the agreement. In the decision making process that meant a "double veto right"; no fundamental decision within the Mineral raw material area could be taken in the case of disagreement. Not only did each government have the right to veto, but if only one government member wanted it, the vote would be tried the parliament, also called *the*

[40] The Home Rule Arrangement (official translation)
[41] Lov nr. 577 af 29/11/1978; The Home Rule Act (official translation)
[42] Lov nr. 585 af 29/11/1978; The Raw Materials Act
[43] The Joint Committee on Mineral Resources in Greenland (official translation)

double veto. It was emphasised that the decisions in the Joint Committee mainly were "decisions about the development pace" (Foighel 1978:3). The Home Rule Commission acknowledged that Greenlanders had reasons to mistrust parts of such a development. In the balancing act between rights and interests it was recognised that the content of the development could be discussed. The Greenlanders, it was recognised, had the right to shape it, the right to secure the special Greenlandic lifestyle and to benefit economically (KHG 1978a:26).

That the agreement was separated from the overall Home Rule Arrangement raised criticism and suspicion of the Danish state wanting to secure future control. This is mirrored in the three figures depicting the institutions established as a consequence of the agreement, fig. 4-6. In Danish political scientist Jens Brøsted's version, figure 4, the geographical distribution of the institutions is used to change the perspective on the "principle of equality".

Figure 4: Danish political scientist Jens Brøsted's version of the institutional composition of the Raw Material Agreement

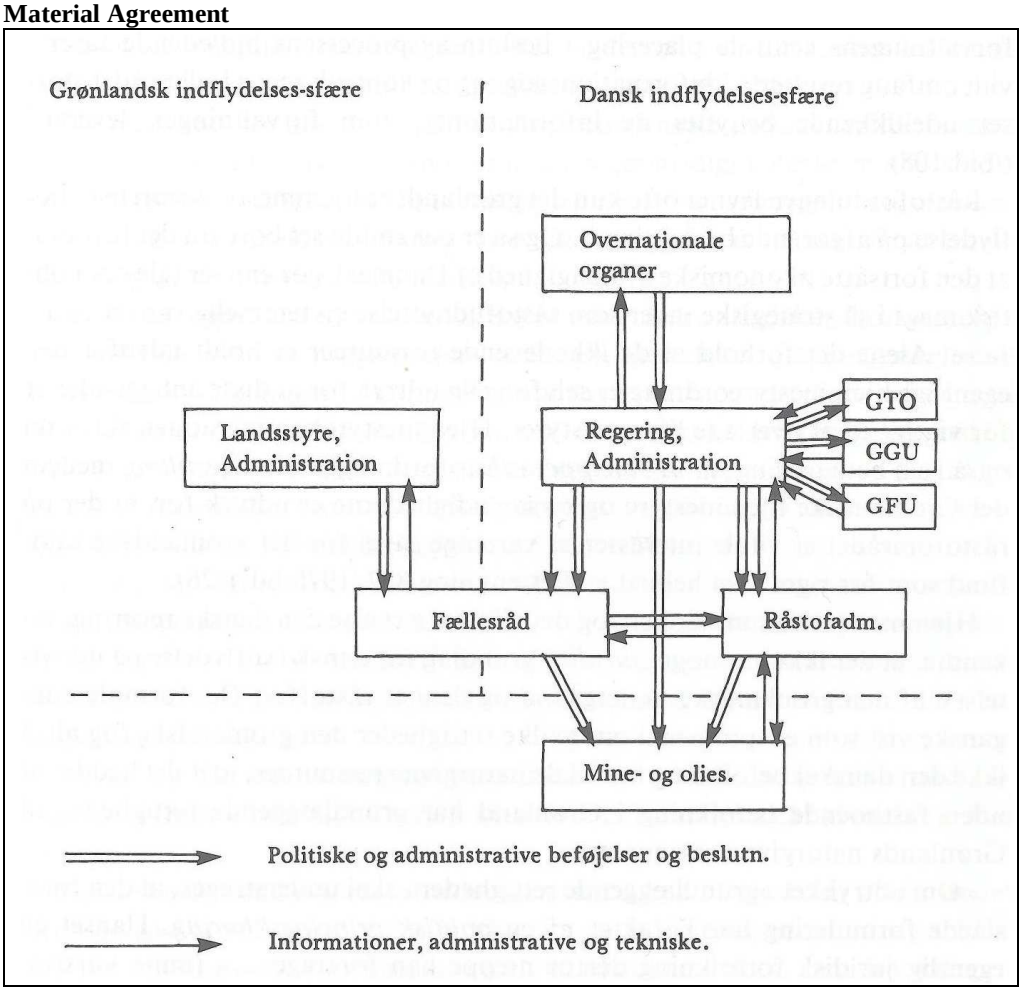


Source: Brøsted 1979:74 (Courtesy of Jens Brøsted)

As Brøsted emphasises, a majority of the related institutions were to stay in Denmark and consequently exercise influence. Moreover, the Greenlandic access to knowledge about the mineral resources issues was limited by the long distance. In Brødsted's version it seems as though they have to cross the Atlantic. As a critical comment, Brøsted's version tries to "equalise" Denmark and Greenland by twisting and turning the map normally centred on Denmark, which makes Greenland look like a far-away periphery.

A similar approach is displayed by Danish anthropologist Jens Dahl in figure 5, who states that the Mineral Raw Material Administration in real terms is a part of the Danish State apparatus (Dahl 1986:120).

Figure 5: Danish anthropologist Jens Dahl's version of the institutional composition of the Raw Material Agreement

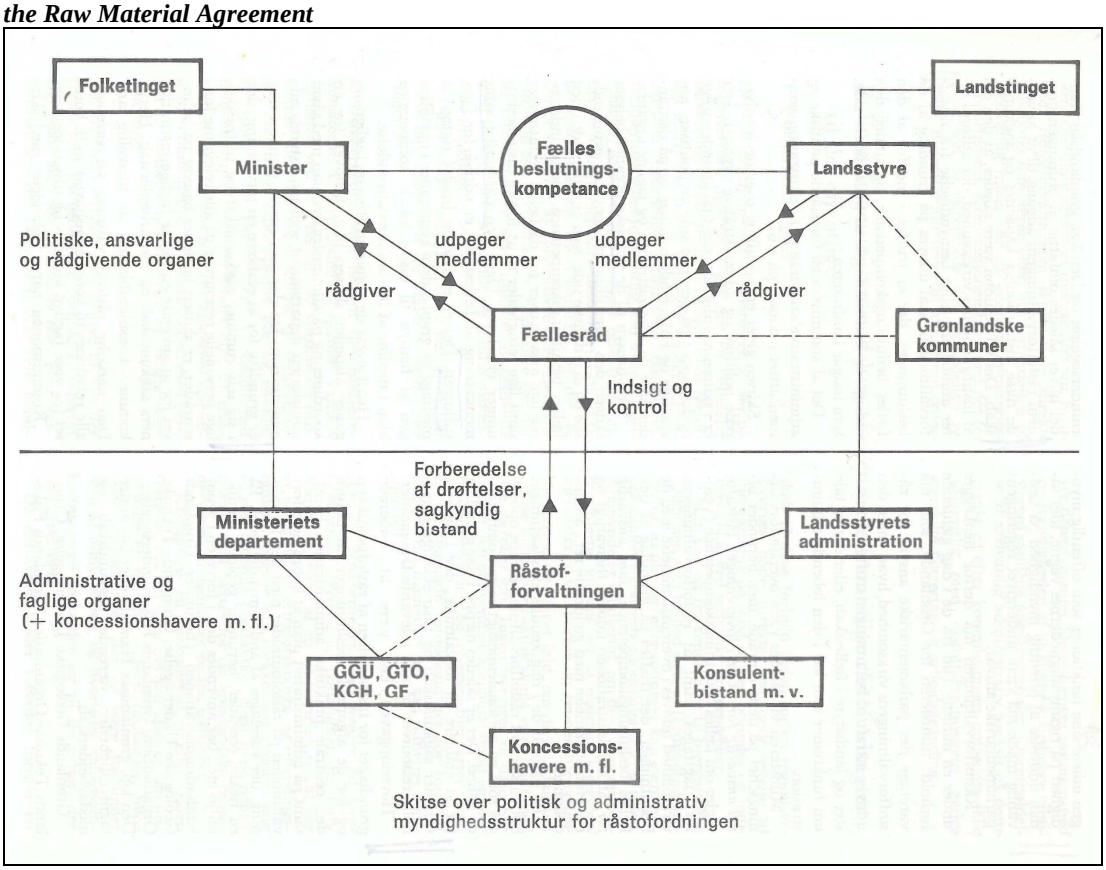


Source: Dahl 1986:121 (Courtesy of Jens Dahl)

Though not referring to a map, the "principle of equality" is obviously criticised by Dahl too. Dahl systematically distinguishes to types of contact between the institutions. The double arrow depicts "political and administrative competence and decisions" and the single arrow "administrative and technical information". In addition, Dahl specifically operates with three realms of influence: the Greenlandic (upper left), the Danish (upper right) and below both an international realm composed by the oil and mining industry. In Dahl's version everything that reaches Greenland is transferred through the Joint Committee ("Fællesråd"), while "administrative and technical information" from "mining and oil companies" is transferred through the Raw Materials Administration before reaching the Joint Council.

The official version published in the Home Rule Commission's report is shown in figure 6. As could be expected, this version emphasises the "principle of equality" in that the illustration is symmetrically composed.

Figure 6: The official Home Rule report version: ***Sketch of the political and administrative structure of the Raw Material Agreement***



Source: KHG 1978a:67 (Courtesy of the Home Rule Commission)

In fact, the only thing disturbing the symmetry (and equality) of the figure is on the Greenlandic side, the "Greenlandic Municipalities". It is tempting to draw the interpretation of figure 6 rather far: in its symmetry, it almost has something quasi-religious about it. The horizontal line across the entire figure separates the political realm from the administration, knowledge production and commercial interests. On the one hand, the figure seems to state that political decisions are taken solely by evaluation of controllable objective information. From the theoretical perspective of co-production, such a division is artificial, because the realms co-produce each other. On the other hand, and in line with ecological modernisation, it portrays what a *politico-administrative response* might look like. The two arrows connecting the Joint Committee and the Raw Materials Administration can be seen as a closed circuit where disagreements are settled before the national parliaments (and the press and public) are involved. Suddenly, the hotly debated issue of hydrocarbons in Greenland could be "modernised out of the crisis" (Hajer 1996:249).

5.3.7 Optimism and Pessimism in Qaqaortoq

At *Konferencen vedrørende mineralske råstoffer i Grønland*[44], held in Qaqortoq in South Greenland in June 1978, Danish-Greenlandic politicians, administrators and scientist gave their view on the Greenlandic mineral resource potential (Grønlandsministeriet 1978, see details in appendix 1). As one would perhaps have expected there was a majority of Danish speakers, yet it was not overwhelming and the overall appearance was one of equal representation. The Home Rule Commission's report had been published and the Raw Material Agreement proposed. Though nobody could be sure if the proposals would pass at the time of the conference, the contours of a future administrative framework were clear. The following résumé of the conference is made to give an early impression of what a "principle of equality" could look like.

There was a sense of optimism towards future development when Jonathan Motzfeldt of Siumut stated that mineral resource extraction, can "not merely be a national concern, but in most cases will be an international matter." In a resource-hungry world, one had to acknowledge certain "economic laws" as a basis for decision making,

[44] Conference regarding Mineral Raw Materials in Greenland (my translation)

something that could have “decisive importance for Greenland’s future.” Summing up these statements Motzfeldt describes how “we have been part of debates and discussion regarding this very exciting and very complicated beginning of an *oil adventure*” (Motzfeldt 1978:4, my italics). Following this perspective, the Mayor of Sisimiut in West Greenland, Emilie Lennart, went into details regarding the town of Sisimiut’s potential as off-shore supply base. The specificity of the presentation is remarkable. Lennart notes how approximately 205 persons will be employed, detailed down to 16 different categories of employment, for each drilling operation. Yet the possibility of employing Greenlanders would in the short term be limited to “indirect functions” and service (Lennart 1978).

Skepticism from a Greenlandic point of view was stated by the chairman of the Greenlandic Workes Union, Odaq Olsen, Greenlandic member of the Danish parliament, Lars Emil Johansen and chairman of the Greenlandic Business Development Board, Angmalortok Olsen. The scepticism was based on principal arguments. A “debate about the purpose” was needed, because it was “not the development of raw materials that shall dictate the development of the Greenlandic society” (Olsen 1978:4). Johansen emphasised the need to “reduce the dependency of foreign countries” regarding import of goods and services. While Johansen, on behalf of Siumut, would not exclude mineral extraction on land, he (and Siumut) were against off-shore drillings (Johansen 1978:4). What the sceptics shared with the optimists was the belief in the existence of resources worth developing. When Olsen (A.) questioned the existence of resources in his presentation, he indicated that companies could have left the impression of dry wells to save the “hidden resources” for a “favourable situation” in the future: “one wonders when such a «favourable situation» will appear, so that they will begin the extraction up here” (Olsen, A. 1978:3). The message is: the resources are there, the discussion is about who will own them and how extraction is to take place.

Scepticism or not, the idea that resource extraction was readily available was challenged by Director of Geological Survey of Greenland, K. Ellisgaard-Rasmussen, former chief of police and Master of Law, Jørgen Hertling and Head of Department, Gert Vigh. As Hertling remarked, “common to hard and soft minerals is that large uncertainties are always attached” and therefore it would be “worrying to have too large

expectations to minerals as a basic source for the Greenlandic economy" (Hertling 1978:3). Ellitsgaard-Rasmussen was even more dismissing in his geological review of raw materials which could be classified as potential: "I deliberately do not mention oil, since its existence is not proven anywhere." According to Ellitsgaard-Rasmussen, it would take at least a decade before any resource could be put into production. However, in an attachment to the presentation added after the conference, Ellitsgaard-Rasmussen wanted to show how "sorrow can be turned to happiness." While he put the western off-shore "on hold with regard to oil", he saw an area on the east coast who could be "matured" in the future (Ellitsgaard-Rasmussen 1978:2,9). Vigh did not change the impression of the oil adventure being quite remote. The optimism of the concession of 1975 seemed to have faded, since the positive sign from the exploration drillings was a weak trace of gas. Vigh also mentioned East Greenland, however the surveys "are taking place regarding possibilities in very long terms" (Vigh 1978:12).

Since fisheries still was the primary export and state income (in addition to the Danish block grant) it was natural to include presentations of potential problems regarding co-existence of off-shore activities and fisheries. Pollution by hydrocarbons to the sea was the main theme. Olsen (A.) and Johansen had already made clear statements which linked pollution to the protection of fisheries and hunting. As Johansen stated hydrocarbon extraction onshore could be allowed if related "pollution does not damage the main commercial interests". Niels Carlo Heilman from the Greenlandic Hunters and Fishers Association was positive to hydrocarbon extraction, even from a fisher's point of view. Heilman saw two types of risk connected to offshore activities: first, blowouts or other types of oil spills with immediate consequences, a risk he considered as "minimal". Second, the "consequences for the fisheries on a daily basis" caused by waste and damaged material (Heilman 1978:2). Poul Johansen, a biologist from Greenland's Biological Surveys, emphasised that it was "reasonable that the environmental problems have an important place in the raw materials debate, since there is a potential conflict between exploiting minerals resources and living resources (fishery and hunting)". Regarding pollution from hydrocarbon activities, Johansen (P.) distinguished between the phase of exploration and the phase of production. While the anxiety so far had been about "oil spill related to the drillings", like the Bravo-blowout, Johansen stated that oil

pollution in Greenland "so far only had come from the (normal) traffic of ships" (my parenthesis). In this perspective, the risk of oil pollution related to production "was based on much more experience", than in the exploration phase (P. Johansen 1978: 6-7).

All though four large bulks of presentations at the conference do not give a complete account of the content of the statements, they do tell a story. Many remarks could have been made to challenge the optimism about the view that risk was only attached to exploration. As Johansen (P.) remarked about the production phase, the danger of pollution could increase when going from exploration to production. Still, the different views of the presentations did not rule each other out. Acting under the new administrative framework they stayed within positions where all opinions aired at the conference could be included, at least on a rhetorical level.

5.3.8 Summary and Discussion of Results

The relation between the two views on the Home Rule process is artificial in the sense that they took place within one interactive process. Still I think it showed how the Home Rule process was able to contain the two opposite directed positions of Homeland and Frontier (the first view) and a third position which in crucial aspects resemble ecological modernisation (the second view). Working with ecological modernisation this containment is interesting since the ability to redefine the character and solutions of environmental problems was crucial to the eco-modernistic development. In this case it was the "Greenlandic Greenland" reacting against blowouts and 400 km2 concession blocks. At the same time it was the Danish Ministry for Greenland reacting against what they saw as antisocial Greenlandic rights claim, with potentially powerful consequences.

The first view focused on the effort to answer the Greenlandic claim of ownership and rights. Due to the words used, and the framing of the discussion by the "new politics", it seems reasonable to understand this discussion as a struggle between the Homeland and Frontier discourses. This is also exemplified by the negotiation of "fundamental rights". However, the problem was that the new questions about resource rights were posed in a way which made negotiation between the Frontier and Homeland position very difficult. Exemplified by the debate between Lars Emil Johansen and Erik

Ninn-Hansen, the distance between the positions seemed unbridgeable. Where Lars Emil Johansen saw a people with rights, Ninn-Hansen saw a kingdom with interests.

Yet within the Home Rule Arrangement, the Raw Material Agreement stands out as representing a seed of change. This was the focus of the second view. The hydrocarbons were representing something that both parts strived to get. Establishing a separate administrative unit to negotiate questions of mineral development behind closed doors, before entering the realm of public debate, is exactly the "politico-administrative" response indicating a new regime that Hajer describes as ecological modernisation.

The majority of Danish and Greenlandic politicians wanted a Greenlandic oil adventure. The game of words showed that while the aim − hydrocarbon extraction − could be agreed upon, the disagreement was "caught" in the language to describe that aim: rights versus interests. Would it have been possible to let it all fall, to break off the Home Rule process, because of such a disagreement? It probably would not. Instead, a new discourse-coalition was crafted, which was able to include the members of the two struggling positions.

However, it might be a little early to conclude that the Homeland and Frontier positions could be dismissed of. Indeed, they continued to be important markers of political discussions about hydrocarbons in Greenland. The story line "principle of equality" both points to the way hydrocarbons became a Danish-Greenlandic project, but also that the "equality" was questionable. As is indicated by the figures 4-6, the last one being the official version, not everyone agreed that "equality" was the right description.

The conference in Qaqortoq is a good example of how the hydrocarbon-issue (and to some extent other mineral resources) affected the framing of the area. As we noticed, a long list of aspects regarding exploration and extraction were touched upon. Statements foresaw an "oil adventure", while others estimated that "no oil was discovered" and that at least a decade would pass before discoveries not yet made could be exploited. Of course, due to the nature of the conference no one could write off the hydrocarbon-issue, but the obvious disagreement about the speakers' understanding of the development conditions could at least have been an eye-opener. Among the speakers at the conference no one was asked to speak about a scenario where no mineral resource extraction at all

was to take place in Greenland. But curiously, regarding hydrocarbons this is exactly what has turned out to be the case.

Present at the conference was optimism, scepticism and pessimism mixed with relevant information and timely questions. My intention of containing them in the subsection above was to see how the hydrocarbon-issue was used, now that the Raw Material Agreement made up the political-administrative condition in the background. As such, it is no surprise that none of the speakers played exclusively on the Homeland/Frontier line of conflict. One way of understanding the conference is as a preliminary exercise before the Joint Council and the Raw Materials Administration came into power. Since the Joint Council should contain discussions perhaps not suited for parliamentary disputes, the way the conference succeeded to include a variety of opinions on the hydrocarbon-issue must have been satisfactory.

Table 3: Summary of Results from 5.3

Emblematic Issue(s)	− The blowouts − The Raw Material Agreement
Story line(s)	− A more Greenlandic Greenland − Fundamental rights − Principle of equality
Main Theoretical Perspective	− Ecological modernisation

5.4 Opposition and Administration − Two Emblematic Events

In this section, I intend to ask how two emblematic events framed hydrocarbons in relation to the Greenlandic nature in rather different ways. It is interesting if and how the views in the debates around the events resemble patterns of the known discourses Homeland and Frontier and thus connect to the Home Rule negotiations. Also, how do they show that the emerging discursive structure, ecological modernisation, is gaining strength?

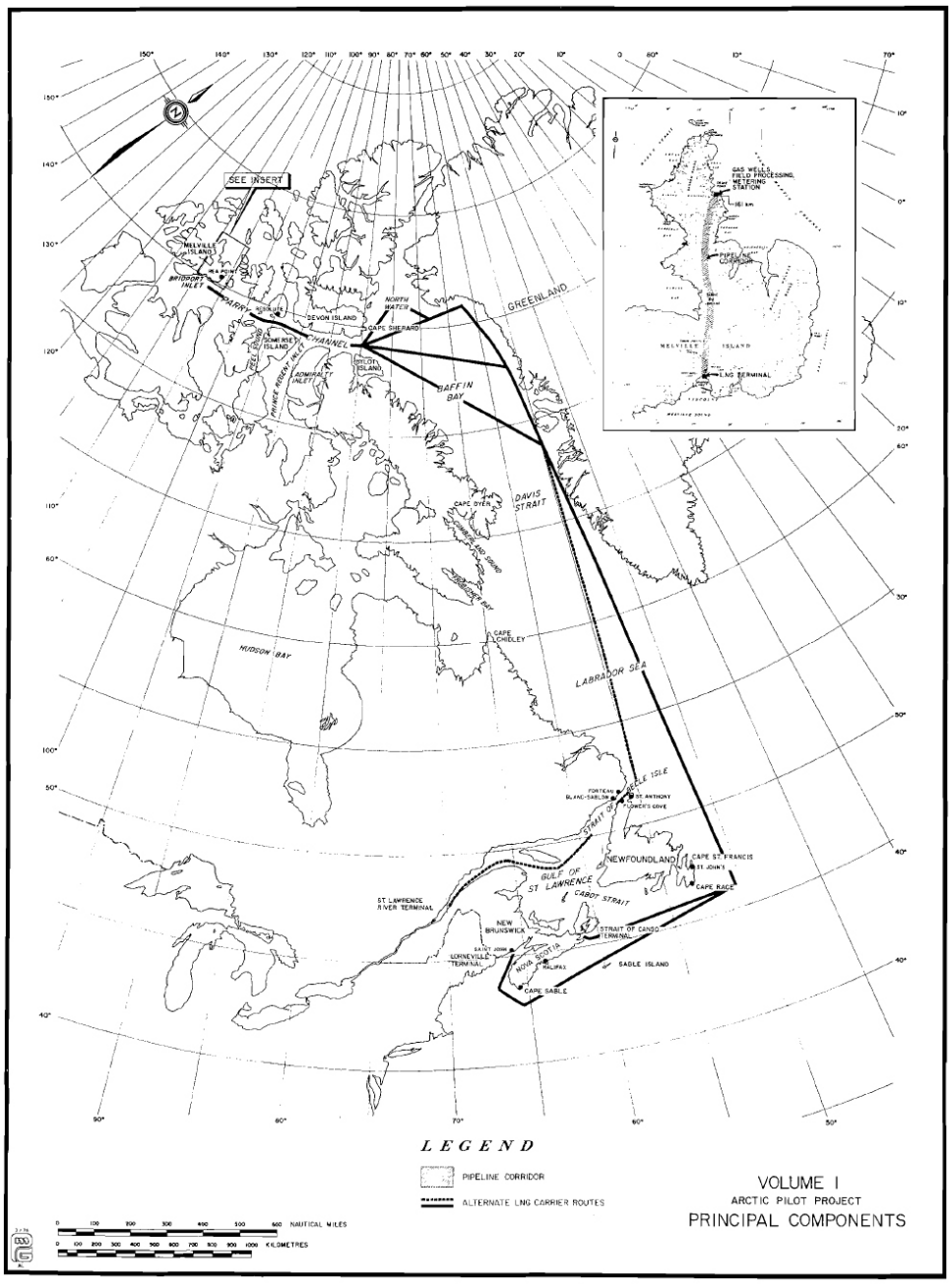
By the end of 1978 all of the five exploration wells were declared dry by the concessionaries and the West Greenland off-shore concessions were given up (Joint

Committee 1981:9). This left the newly formed Joint Council without any promising hydrocarbon projects. When a Danish-American company proposed a large-scale exploration in eastern Greenland, we can at least expect that the proposal was received with interest. This was be become the Jameson Land Concession. Yet the section begins with another kind of event. The Arctic Pilot Project, a Canadian proposal of Arcitc shipping, triggered a discursive pattern that made use of the arguments of the 1970s, observed before and during the Home Rule process. Denmark-Greenland formed a somehow surprising discourse-coalition opposing the Arctic Pilot Project.

5.4.1 The Arctic Pilot Project

Arctic Pilot Project was a plan for transportation of natural gas from northern Canada in icebreaking tankers going from the Canadian Arctic. The tankers would carry the gas as Liquid Natural Gas, popularly abbreviated LNG. Shown by figure 7, the gas was to be transported to a south-eastern Canadian harbour on a proposed route along Greenland's west coast, in some places as near as 25 kilometres to the coast (Rasmussen 1987:150, Petro-Canada 1979:8). During the 70s many hydrocarbon discoveries had been made in the Beaufort Sea and the Arctic islands, especially of natural gas. The project represented a solution to the problem of accessing consumer markets further south. Nothing similar had been tried before; relying on ice-breaking vessels for an Arctic transport route through ice-covered waters was indeed a pilot project (Lauritzen 1982:24). The initial vision was to start operations in 1983 and move into full scale activity in 1985, which implied all year operation of the vessels (Lauritzen 1982:37, Rasmussen 1987:150).

Figure 7: Map showing the proposed route of the Arctic Pilot Project



Source: PC & ATGL 1979:4 (Courtesy of PC & ATGL)

The timing was an important factor for the Arctic Pilot Project since investments in the fields depended on gaining revenue. In addition, the gas price was decisive to the profitability of such a large scale project. In 1977 there was a shortage of gas in Canada, but more importantly also in the United States. The Canadian situation was changed with

huge gas discoveries in Alberta and off the east coast in 1979. Then, contrary to expectations, the price on crude oil rose record high in 1979 and 1980 − called the second oil crisis − after the Iranian revolution and the commencement of the Iraq-Iran war (Noreng 2006:26). This brought new hope into the Arctic Pilot Project, just as it was close to being abandoned (Lewington 1987:171).

It was also a busy period regarding the political and administrative situation of Denmark-Greenland. The Home Rule Arrangement was on its way and an autonomous Greenlandic representation was to be taken into account. The Danish Ministry for Greenland had been contacted in 1977 by the newly founded state-owned Petro-Canada and asked to meet with Canadian officials. A sceptical Danish bureaucracy saw many drawbacks and few benefits, which was stated firmly in a letter of response. Still, it was agreed to meet in august 1977 (Rasmussen 1987:152). The chairman of the Greenland's Provincial Council was informed in September the same year. Much more did not happen for the next two years. Then two things happened on the same day. The 17th of January 1979, Petro-Canada officially announced that it had submitted the Arctic Pilot Project to the National Energy Board, the Canadian federal regulatory authority (Lewington 1987:168). The same day the Greenlanders voted yes to Home Rule with an overwhelming majority. As communication went ahead through diplomatic channels, during the summer of 1979 the Danish government decided to consult the newly elected Greenlandic government before taking a position. In addition to a presentation and overview to the Greenlandic authorities, the ministry publicised information about the project to the public. The severe scepticism revealed in the Greenlandic parliament's autumn-session was summed up by Greenland's first premier, Jonathan Motzfeldt, in a letter of reply dated November 1979 (Lauritzen 1982:34-40).

One of the aspects touched upon by the Ministry's request was the legal context. Canada was not obliged to ask for opinions nor permission from Denmark or Greenland, but would be able to carry the project though in compliance with international law. Among other things, the Law of the Sea[45], part II, section 3, article 17 rules that "Subject to this Convention, ships of all States, whether coastal or land-locked, *enjoy the right of innocent passage through the territorial sea*" (UN 1998, my italics). The LNG carriers

[45] Also known as UNCLOS – The United Nations Convention on the Law of the Sea

would fall under the category of innocent passage. Importantly, the Law of the Sea was not finalised at this time, which meant the countries were not yet regulated by it. In March 1982 the problems of commercial all-year arctic shipping were taken up by Danish and Greenlandic representatives, who issued a statement commenting on the draft of the article. Though I have not analysed the possible effects of the statement, it is interesting to note that the Greenlandic, through Denmark, was heard in an important international forum.

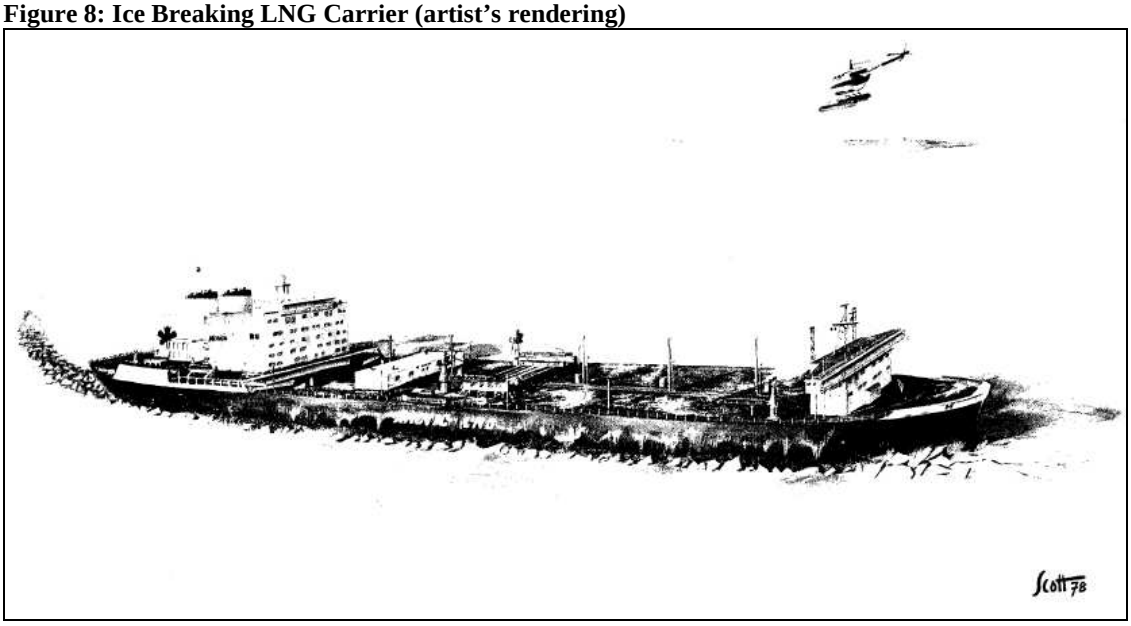
In December 1979 it was decided to establish a "techno-scientific workgroup" on behalf of the Danish authorities and Petro-Canada (Rasmussen 1987:152, Lauritzen 1982:40). In addition, the Canadian government proposed an environmental agreement in 1976 as a framework to guide regulation and actions in case of accidents. The Canadian Minister of Northern and Indian Affairs, John Munro, visited both Denmark and Nuuk to ease concerns and speed up the negotiation process (Lewington 1987:174). The Canadians wanted to sign the agreement before any further decision on Arctic shipping. As part of a larger set of Arctic ambitions, the Canadian authorities "pressed for the agreement" and were "prepared to go to considerable lengths to comply with the Danish safety demands" (Jyllandsposten 1981: May 27th)[46]. The Danish side remained sceptical and the Canadians were "getting a bit impatient", according to the same article. Apparently timing was an issue here as well. The agreement was finally signed in 1983, but what happened to the Arctic Pilot Project?

5.4.3 Unified Protests

In the beginning the Arctic Pilot Project was only a leaflet, a rough sketch of the visionary project that was to come. Groundwork was to be done before the official application, which ended as just described. From the destiny of the project we now turn towards the framing of it, on behalf of the Danish-Greenlandic public and their governments.

[46] As mentioned in 4.4.4, the newspaper articles are not included in the literature list, but compiled in a seperate list in appendix 4. The articles were read in English after they had been translated from Danish. The translation are therefore not mine.

Figure 8: Ice Breaking LNG Carrier (artist's rendering)



Source: PC & AGTL 1979:3 (Courtesy of Scott)

In their application to the Canadian National Energy Board in 1979 the applicants proudly states:

> " The acknowledged resource wealth of the Arctic can be made accessible only through the application of advanced technology and the acquisition of practical operating experience, while at the same time respecting the physical and social nature of the northern environment" (Petro-Canada 1979: 12).

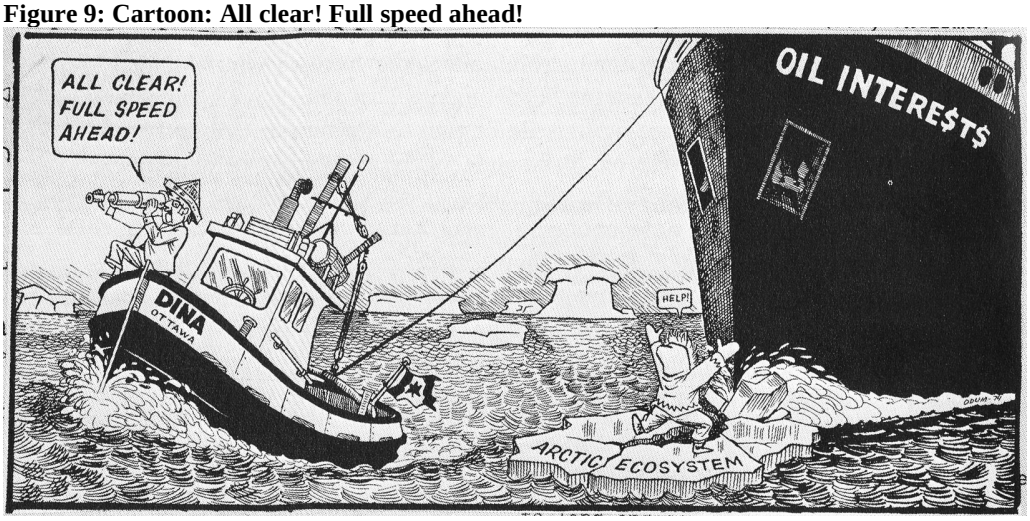
Who could disagree with that? Many people in Greenland, Denmark and Canada disagreed strongly. On a formal level neither the Danish nor the Greenlandic administration welcomed the proposal. Over the span of its existence of five years the project aroused an unprecedented, and perhaps unrepeated, unified opposition among Inuit and other organisations. The founding of the Inuit Circumpolar Conference, commonly called ICC, in 1977, which a few years later represented the Inuit in international fora, can be seen as an example of this (Shadian 2005:249). Based on the application, the Arctic Pilot Project quickly became a visible and hotly debated issue in the media. It can be regarded as one of the most important issues at that time (Rasmussen 1987:151). In the course of 1980 it rose to become one of the first big issues for an

autonomous Greenland. During the work of opposition, the indigenous organisational opposition was tightened and strengthened, contacts were made, articles written and so on (Shadian 2005:257). The Danish and Greenlandic governments, ICC and other indigenous and environmentalist organisation all agreed that the project seemed to be "exporting problems from Canada to Greenland" (Rasmussen 1987:152). In most of the process it was evident that the opponents of the Arctic Pilot Project were a group with little influence and power. If the Canadian parliament had decided to carry the project through they had been free to do so. A Danish paper stated that "What would seem to be involved is a native population that forcefully emphasises its own cultural values and ecologically balanced way of life, versus a greedy and uncaring world whose over-use and one-sidedly economic philosophy threatens to crush it". Greenland seemed to have a "moral right" (Information 1982: Mar 6th). It was "Greenland's struggle", "fighting against the Canadian oil industry" and the Arctic Pilot Project should be "defeated" (Information 1982: Mar 6th, AG 1982: Jan 20th).

The broad based Danish-Greenlandic opposition was suspicious of the way the project was presented. On the first Arctic Pilot Project leaflets from 1977, the map illustrating the tanker route only included Canada. Even though the vessel went closer to the Greenlandic coast this remained a blank slate (Lauritzen 1982:34). Even though it was later corrected when appointed from the Ministry for Greenland, there was something suspicious about the whole thing. According to an article, the Canadian politicians made a "show" to give the impression take they took the Greenlandic opinion seriously (AG 1980: Oct 20th). Petro-Canada's attempt to engage with the public themselves was conceived as "a flock of foreign agents travelling up and down the coast spreading their propaganda" (AG 1982: Jan 27th). Economic arguments and scenarios, whether prosperous or poor, only contributed to the suspicion that behind the cooperative attitude, objections were not being heard. In an article entitled *Arctic Pilot Project is to be pushed trough with offers of jobs and money* it was stated that "Arctic Pilot Project should not expect that wide spread resistance to the project in Alaska, Canada and Greenland will be swept aside, just because the people behind Arctic Pilot Project wave dollar bills in front of us" (AG 1982: Jun 9th). Petro-Canada and the Arctic Pilot Project were seen as industrial imperialism of the worst sort. As in many previous cases of Arctic

resource extraction the local residents would feel the negative impact, potentially long time after the project, while others would reap the benefits. In this perspective fighting the Arctic Pilot Project formed a piece of a larger picture; as figure 10 illustrates, it was nature against the "oil industry" − or the Homeland against the Frontier.

Figure 9: Cartoon: All clear! Full speed ahead!



Source: Lauritzen 1978:318 (Courtesy: unknown)

The main arguments against the Artic Pilot project had to do with the ecological consequences of the project. The "export of problems" was not only from one country to others, it was also from the human, industrial society to nature. That animals − especially sea mammals as seal and whale traditionally caught be hunters − became the focus point was a consequence of the ecological argument (Lauritzen 1982:41). Many feared that "a huge ecological cycle, reaching far beyond the arctic, will be smashed to pieces" (Information 1981: Jun 26th) and the Greenlandic politicians raised concerns about noise pollution, problems related to icebreaking, air pollution and danger of oil spills. None of the Greenlandic politicians "saw any possibility of a Danish-Canadian compromise with respect to the super tanker service from the Arctic islands in Canada down to the Davis Strait" and it was argued that "animals circulate all over these waters between Canada and Greenland so it does not help just to move the navigation" (AG 1980: Oct 2nd). On the contrary, as the Danish zoologist Berthel Møhl pointed out, "marine life, particularly

whales, is so sensitive to the engine noise that they could disappear from the area west of Greenland" (JP 1981: May 27th).

Yet, it was not only the animals that were threatened: the "hunting culture of Canada and Greenland will be sabotaged" (Information 1981: Jun 26th). Since hunting and fishing continued to be "Greenland's most important industry" it was a sensitive matter, exemplified by the president f the ICC at that time, Hans-Pavia Rosing: "we shall be killed, but we shall continue to breathe" (AG 1980: Oct 2nd). Connecting the issue of environmental protection with the Greenlandic traditional way of life seemed a logic step in this context. As the Mayor of Qanaaq, Ussarkak Kujaukitsok, said: "We must make an attempt to ally ourselves with foreign environmental organisations to secure a stable future for sealing and whaling in Greenland" (AG 1982: date unknown). Support was also gathered in other arenas, for instance when Attasut's Otto Steenholdt was seeking "help from the environmental ministers of the Nordic countries as well as from associates devoted to the protection of animals and of nature." According to the article, Steenholdt "pleaded for help" in the Nordic Council (AG 1982: Mar 4th). Interestingly the Danish representation questioned "what the Greenlanders themselves would do if and when there is oil production in Greenland, and this oil has to be transported to other markets" and pointed out that pollution from a LNG carrier spill might be much less serious than that of oil (AG 1982: Mar 4th). This possible line of conflict was not picked up. Instead Danish actors did a lot to distance themselves from Petro-Canada and the project (Rasmussen 1987:151). Suddenly it was "Denmark to the rescue of Greenland against Canada", as the above quoted article was entitled (AG 1982: Mar 4th).

The experimental character of the Arctic Pilot Project was an aspect that strengthened scepticism. As the application stated, it was "in the nature of a pilot project that there are elements of uncertainty to be evaluated" (Petro-Canada 1979:9). The story of the Arctic Pilot Project has been described as one about a corporate chameleon who tried to change according to public and political demands (Lewington 1987:163). This, and other similar projects announced along the way, contributed to widely different estimates of the extent of the industrial endeavour. Estimates ranged from three tankers operating all year (Flensborg Avis 1981: Apr 14th) to the passage of 2000 tankers a year (Jyllandsposten 1981: May 27th).

The uncertainty could be seen from different perspectives. From the Arctic Pilot Project consortium, the project was a matter of gaining important knowledge, but from a Danish-Greenlandic perspective, the uncertainty was an argument against it. A huge accident could become an ecological as well as a social disaster and no survey could guarantee freedom from risk or harm. As the Greenlandic President of the ICC, Hans-Pavia Rosing put it: "it is clearly an experiment, the consequences of which cannot be assessed by anyone" (Helsingør Dagblad 1981). It was a matter of who had the burden of proof. Was it the intruding part or was it the opposition?

As mentioned, the Arctic Pilot Project applied to the Canadian National Energy Board in the beginning of 1979. The board would not begin the hearing before it had satisfactory documentation of the project's environmental implications. After several legal escapades it was decided to begin the hearings in February 1982. The Inuit, represented by the Canadian Inuit organisation Inuit Tapirisat Canada, were an important part of the opposing forces. Urged by the Inuit Circumpolar Conference, also the Greenlandic Home Rule Government accepted to testify for the Canadian Inuit, even though Petro-Canada did what they could to prevent it. At the hearings, presentations of traditional hunting techniques were among the things contributed by the Greenlanders. Hunter Bendt Frederiksen testified that "I know if only a small motorboat passes through an area, no fish are caught the next day on that route" (AG 1982: Mar 10th). But also other issue were included as arguments against the Arctic Pilot Project. The Greenlandic delegation requested above mentioned Danish zoologist Bertel Møhl to give a testimony of his studies of possible negative effects of supertankers on the marine environment (AG 1982: Jan 20th). At hearings at the National Energy Board the problematic uncertainty of the project was emphasised by Finn Lynge in his testimony: "Would it not be more justified that Arctic Pilot Project should have to prove to us that the tankers do not create pollution?" (Socialistisk dagblad 1981: Mar 10th). In short the view was captured by an article title: *Arctic Pilot Project is a Blemish on Canada's Reputation as a Humane Country* (AG 1982: Mar 10th).

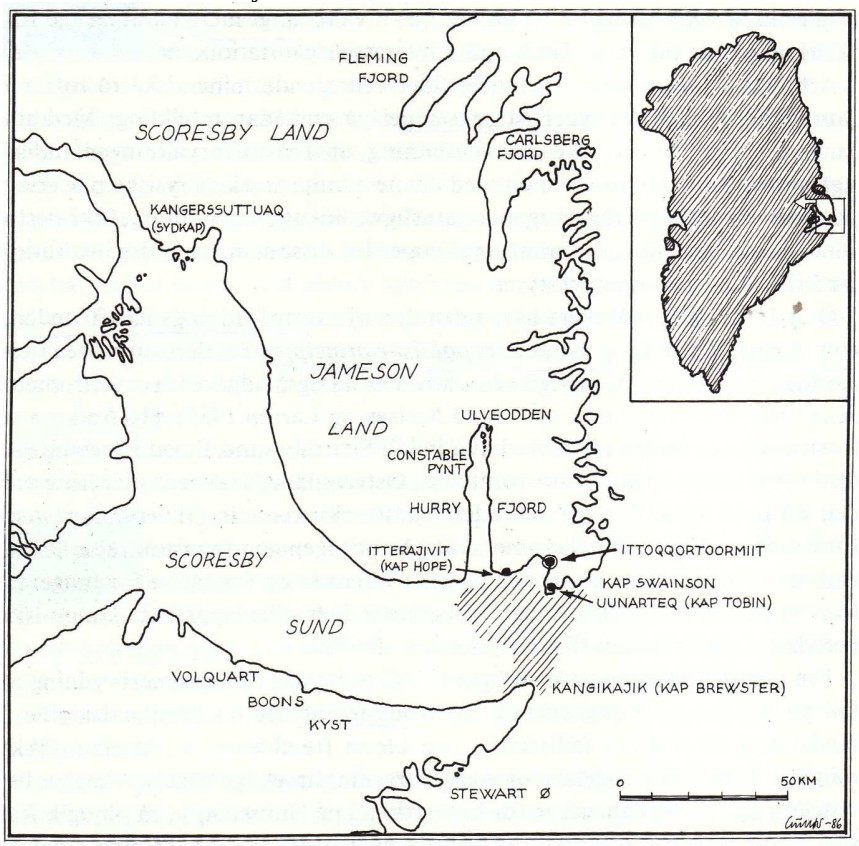
When hearings began the Arctic Pilot Project was under pressure from falling demand of gas due to the recession of early 1980s in the USA and Canada. In August 1982 the hearing chairman suspend the hearings until a reasonable marketing programme

was put together. It was not, and the process was closed in August 1984 (Lewington 1987:176-178).

5.4.4 The Jameson Land Concession

The other of the two events was quite different. Making hydrocarbon exploration of Jameson Land offered something very valuable to both Danish-Greenlandic politicians and administrators. Since the last drillings in the summer of 1977, and contrary to attention the topic had received in public and political discussion on the Home Rule Arrangement, there had not really been much activity around hydrocarbons in Greenland. So, when a Danish-American consortium contacted the raw materials administration to review and revive an existing concession in Jameson Land in East Greenland, it is reasonable to assume that it was welcomed.

Figure 10: Map showing the Ittoqqortoormiit area, including Jameson Land, on which Nordisk Mineselskab had a 50-year concession from 1952.



Source: Dahl 1986:144 (Courtesy of H.C Gulløv)

Holding a sole concession of a somewhat arbitrary square of land in East Greenland from 1952 and lasting 50 years, *Nordisk Mineselskab*, or the *Nordic Mining Company*, was one of the few private companies, along with A.P. Møller in Denmark, which had been able to purchase the right to resources when no one believed there were any. Contrary to the North Sea, Nordisk Mineselskab had not done much to explore the potential (UKG 1974) The largest share owner in Nordisk Mineselskab wanted it to be different. The American Atlantic Richfield Company − popularly called ARCO − who owned 35 percent of the shares, was not unfamiliar with Arctic hydrocarbons (Joint Committee 1982:7). In 1979 Nordisk Mineselskab and ARCO contacted the newly formed Raw Materials Administration and proposed to begin explorations in Jameson Land, East Greenland within Nordisk Mineselskab's concession area. As one of the operators of fields and facilities in relation to Prudhoe Bay it had been part of the Alaskan oil boom. Its experience with Arctic hydrocarbon extraction and investment capacity clearly impressed the Danish/Greenlandic representatives. The Joint Committee meeting of august 1980 was held in Anchorage, Alaska, to allow examination of the "very big" facilities in Prudhoe Bay and Valdez (Joint Committee 1981:8).

The West Greenland off-shore Concession had been given up during the introduction of the Home Rule in the summer of 1978 and no other private explorations in Greenland followed. Now that there was an administrative and political body to address mineral resource questions, it might not be surprising that the Jameson Land project was warmly welcomed and took up a lot of the Joint Committee's attention (Joint Committee 1981:7). The political agreement followed and in the autumn of 1980 the basic principles of the resumption of hydrocarbon explorations in Greenland was in place (Joint Committee 1981:9).

The negotiations ended in late 1984 and the concession was signed in early 1985. Another result of the Joint Committee's work was the formulation of public participation through a joint company, called Nunaoil, whose ownership was 50-50 Danish and Greenlandic. It was emphasised as part of the principles of equality that guided the overall arrangement (Joint Committee 1982:11)

5.4.5 Greenland's Own Arctic Pilot Project?[47]

It soon became clear that the event could become controversial within the Danish-Greenlandic relation. Whereas the Arctic Pilot Project opposition received broad support and guarantees of no more off-shore drillings had been given by central Greenlandic politicians, the new potentially large-scale hydrocarbon project in Jameson Land took shape. When the Greenlandic newspaper Sermitsiak entitled an editorial "Greenland's own Arctic Pilot Project", it focused on the conflicting attitudes regarding the Canadian project and the Danish-Greenlandic one (Rasmussen 1987:155). Would this project lead to public protests as well? How would the Home Rule Government deal with it? Would Jameson Land re-write the story of Danish control and colonialist resource policy in the light of the Home Rule Arrangement's principles of equality?

On the face of it there was agreement on the issue between the Danish and Greenlandic government. While Arctic Pilot Project was based on foreign relations, this was an internal matter of the kingdom. This meant that negotiations took place within the administrative framework. If there were disagreements they could be discussed behind closed doors until a satisfactory compromise had been found. The Greenlandic parliament actually ended up reversing the political image of proponents and opponent of hydrocarbon exploration. The moderate and Danish friendly Attasut was suddenly sceptical, and two of its parliament members ended up voting no to the final agreement in 1984 – against a majority of 23 votes. They "felt convinced that irreparable harm would be inflicted on the hunting and fishing industries in Illoqqortoomiut…' (Sermitsiak 1984: Nov 9th). Masking possible disagreement was also a major shift in focus from that of the Arctic Pilot Project. Whereas Arctic shipping had been the large looming threat, the framing strategy now became that of pushing the issue of transportation as far as possible in the background. Quoted in a newspaper, the premier at that time, Jonathan Motzfeldt of Siumut, framed the issue as follows: "exploration is one thing and oil transport from the area is another thing". He continued that: "if oil is found, we will decide at that time what to do" (AG 1984, July 11th). In the same article Jonathan Motzfeldt estimated that the question of oil transport was not "to be topical until about 10-15 years from now". Driving a wedge between exploration and extraction/transportation suddenly allowed the

[47] This headline was taken from Rasmussen 1987

politicians to avoid the filthy reality of hydrocarbons, quite a remarkable achievement. The message was that exploration was the challenge right now and attention should be turned towards the negotiations of the concession.

One of the most debated issues concerning the tangible exploration plans was the location of the supply base of Jameson Land (see figure 10). The place favoured by the companies, Hurry Fjord, implied navigation within sight of Illoqqortoomiut. While the supplies for the exploration phase were not larger than a few shiploads, the locality was nonetheless very controversial. The sound outside of Illoqqortoomiut was a very biologically productive area. Besides the hunters association and local politicians some of the most vocal voices were Danish. A worried Danish ornithologist, Hans Meltofte, wrote: "there are indications that the home rule authorities are suddenly changing their attitude now that economic interests of their own are at stake" (AG 1983: Nov 30th). And in an open letter to the Greenlandic parliament, the chairman of Greenpeace Denmark complained that: "those were the days … only two years ago! Of late the politicians certainly sing a different tune: the prospect of oil discoveries in Jameson Land has eclipsed the lofty ideals of protection of the environment, balance between man and nature etc" (AG 1984: Feb 22nd). In this perspective, the legitimate right to criticise Arctic industrial activity is the most serious implication, since: "how will it be possible to argue and fight against the much larger Canadian project which will follow the Arctic Pilot Project?" (AG 1984: Feb 22nd). This focus on legitimacy followed the approach used against the Arctic Pilot Project, seeing the Jameson Land Concession as a precursor to something larger.

The decision to start exploration seems to be defendable only when it is de-coupled from the decision of extraction and transportation. It is in this light we must see statements such as "the road to greater independence runs through Jameson Land" (Sermitsiak 1984: Oct 19th). Clearly, such a framing can be seen as an attempt to re-establish the moral right to continue. When the political independence naturally is connected to economic independence, the resource extraction becomes a way to secure the Greenlandic autonomy, and the cultural identity it was meant to defend. In Jonathan Motzfeldt's words the agreement was "decisive for the credibility of Greenland as a distinct society" (Sermitsiak 1984: Oct 19th). This is important because it shows that the

co-production of Greenland and hydrocarbons was leading to a new order. Along with the co-production of Greenland as both an autonomous state and as one with interests in oil extraction, the Homeland and Frontier positions are increasingly caught up within the same project of ecological modernisation. The argument of economic self-sufficiency as the road to independence was complying with a Danish point of view. The economic stability and viability that Denmark had tried to create in Greenland since the 1950s now seemed within reach.

The suspicion that permeated the relations to Canadian interests was replaced by visions of the workers needed and the political consequences if the discovery was sufficiently large. Still, the image of Jameson Land as a place for oil discovery appealed to many. The waving of "dollars bills in front of us" had suddenly changed meaning. In the article "Jameson Land – local workforce involved in first work phase", the chairman of the workers organisation optimistically stated that "already at this early date, local labour will be employed in the oil activity in Jameson Land" (AG 1983: Sep 21st). Other articles tried to estimate the proportions and the impact on the Greenlandic society and although these were "entirely based on the assumption that ARCO/Nordisk Mineselskab makes a single oil find that is commercially exploitable, meaning a find of 500-800 million barrels of available oil" it left an impression of huge possibilities. Under such conditions it was "not unrealistic to expect a 20-25 year production period" (AG 1983: Jul 20th). Other figures that probably made good headlines focused on the total investment sums in case of discovery: "Oil Companies Ready To Invest 100 Billion Kroner In East Greenland" (AG 1980: Nov 20th) and "New Concession Will Pave The Way For Investment of Billions in Greenlandic Oil Explorations" (Weekendavisen 1983: Aug 19-25th).

5.4.6 A Change in Attitude

In many ways the dilemma of Jameson Land is obvious from a Greenlandic point of view. On the background of earlier protest and opposition towards hydrocarbons projects such as the Arctic Pilot Project or the west coast offshore drillings, it was easy to be accused of an inconsistent policy in the support of the Jameson Land Concession.

As the editors of Press Extracts on Greenland observed:

> "There has been a change in the political parties in regard to oil exploration in Jameson Land. The Inuit Atagatigiit which used to be against oil exploration now approves as does the ruling Siumut party; whereas the Atassut party, the more conservative of the three parties, who originally was the one who approved, is now against oil exploration." (Press Extracts on Greenland 1986:ii)

In a similar perspective, the editorial of the Greenlandic newspaper noted that "now the situation has suddenly become reversed", but also asked East Greenland to show solidarity with the rest of the country (AG 1984: Oct 10th). Was it an isolated case, a change that only had something to do with Jameson Land, or was it a change in attitude? Were all the citizens of Greenland now suddenly proponents of hydrocarbon exploration and expecting solidarity from the East-Greenlanders?

Indeed, looking through the newspaper articles there are a bulk of utterances that seem to strengthen this view. Illustrative is the Greenlandic chairman of Inuit Circumpolar Conference, Hans-Pavia Rosing, who was "of the opinion that techniques in the field of oil extraction and transportation are currently developing so quickly that it should be possible to discover an environmentally safe way of moving the oil away from Jameson Land". He emphasised that "we are naturally on the side of the local population, as we were in the Arctic Pilot Project case" (AG 1983: Sep 21st). What was going on? A important part of the Home Rule authorities' balance act was of course the fact that Greenland's economy relied on far too few sources, fishing and hunting, which were (and are) vulnerable to climatic changes. Seen from this perspective it is therefore completely in line with a responsible, far sighted approach when Jonathan Motzfeldt remarked that: "in realistic terms, we are simply forced to find an alternative that can supplement and support our present financial base" (Sermitsiak 1984: Nov 2nd). The focus on technological development, to provide the needed certainty and safety, closely follows the Canadian argumentation in favour of Arctic shipping in the Arctic Pilot Project.

One could however doubt the importance of such political manoeuvres to avoid loosing voters. Was it, behind the political debates, and seen from an administrative point of view business as usual? One of the problems in the first years of Home Rule was that the implementation of knowledge, the training of staff, negotiating concessions,

exercising control and so on, takes time. The Home Rule Administration did not have sufficient capacity, nor the skills, to challenge the Raw Materials Administration. That the Raw Material Agreement implied that almost all the know-how remained in Copenhagen could be understood as serving not only Danish, but also Greenlandic interests. A complete, powerful and skilled administration that could negotiate with the industrial contacts, which, as the Jameson Land Concession exemplifies, was of interest also to Greenlandic politicians (Davies et al 1984:xiii).

That the Raw Materials Administration and other bureaucratic units supported the Copenhagen-based, existing structures was to be expected. The Home Rule was a Greenlandic project and not part of the ambitions of the staff in the Ministry for Greenland and related agencies. Many of the employees were part of a Danish career system (Dahl 1986:141-143). No doubt this was a sore point for both Danish and Greenlandic representatives. When a research project entitled *Offentlig Styring af olie og gas i Grønland*[48] (Davies et al 1984) publicly criticised the equality of the hydrocarbons management and questioned if the politicians had sufficient knowledge about the subject it touched that sore point. The report concluded that "the original intentions of equality between Greenlandic and Danish decision-makers in the entire decision process has not been achieved" and the Raw materials collaboration rested on an "instable balance" (Davies et al 1984:iii). As could be expected, the politicians did not welcome the critique. The leader of the left wing party Inuit Atagatigiit and later president of Inuit Circumpolar Conference, Aqqaluk Lynge, captured the general attitude towards the report when he stated:

> "that the bureaucrats play a dominant role in the meetings of the joint council, as is alleged, is pure nonsense. Both the Greenlandic and the Danish politicians represented on the council are extremely competent persons. Moreover I do not think that the scientists have been very thorough" (Sermitsiak 1984: Apr 27th).

Thorough or not, according to the 368 pages report the problem was that the goals were not clear. One of the authors, Anne M. P. Nielsen, said that it was "her impression that civil servants play a dominant role in the meetings of the joint council, that there is no

[48] Public Regulation of Oil-Gas Activities in Greenland

clear political programme with respect to oil development" (Sermitsiak 1984: Apr 27th). An aspect of this critique also concerns the proposals that were forwarded by the Raw Material Administration. There are several examples of how projects were scheduled only to take place in the summer half, when employment is full in Greenland, and how economic considerations undervalued the importance of hunting to the Greenlanders (Dahl 1986:143).

5.4.7 Summary and Discussion of Results

The two emblematic events point respectively towards the past and the future. The structure of the Arctic Pilot Project event makes use of a well known line of confrontation, Homeland versus Frontier. It brings to mind discussions between Denmark and Greenland in the mid-1970s, only now with changed discourse coalitions. In the Jameson Land project an old concession suddenly becomes revived within a new administrative structure. The arguments are now much more blurred and when local politicians or environmentalist attempt to revive the Homeland/Frontier structure, it is dismissed by leading politicians and bureaucrats. It becomes possible to say that some questions, which were recently posed with great strength in the Arctic Pilot Project, are now irrelevant or at least can be postponed, as the question of transport from Jameson Land.

Arctic Pilot Project became "Greenland's struggle", captured by the story line "nature against the oil industry". "Nature" in the story line is composed by a combination of the ecological consequences of the shipping and the Greenlandic way of life, the hunting and fishing. In this context, hydrocarbons represent "the oil industry" as an industrial product and not nature. The Greenlandic nature needed protection against outsiders, and the protection should be provided by Greenlanders – or perhaps Danish. The story line "export of problems" in many ways points to the local/regional tensions of the event. The word "export" exemplifies the importance of locating the problem: it was exported to Greenland from Canada. The anxiety expressed by ICC on behalf of Greenlandic and other Inuit hunters was about local threats (p.80). As such, the way one understands environmental problems resembles the arguments against the west coast drillings (p.57). The main arguments against ecological threats kept the threats local, kept

them Danish-Greenlandic. If we follow Latour's argument (see 3.3), this is not about ecology because such local-based has more to do with modernisation than *ecologisation*.

The Canadian and Danish-Greenlandic discourses appeared clear cut and it should be noted that the Danish-Greenlandic coalition was able to stay together even though the Home Rule negotiations were not far behind. However, the most remarkable thing is not the agreement over the issue, but the agreement in itself. Crucial discrepancies seem to be played down and suddenly one could call "Denmark to the rescue of Greenland against Canada", a story line which points to the way the colonial relation suddenly was replayed, but now on Greenlandic initiative. In other words, if one argues that Denmark wanted to keep Greenland as a colony, it can also be argued that it was Greenland that wanted to stay a colony in some ways.

Interestingly, although the framing of the debate surrounding the Jameson Land Concession follows the structure of the Arctic Pilot Project, the difference is that the arguments shifted hands and consequently that the legitimate conclusions were altered. The uncertainty of environmental effects which could have duplicated the discussion of threatening Arctic shipping was therefore not a problem. The uncertainty made it possible to postpone the decisions relating to the extraction and production of hydrocarbons, and concentrate on the less impacting exploration-activities. There are many examples of what I interpret as relatively realistic, if not to say pessimistic, estimates of the prospects of the project and the meagre chances of large discoveries. Of course this could be a game played by the commercial interests because pessimistic estimates could give more favourable concession terms. But at least this could have curbed the political optimism.

When Jonathan Motzfeldt stated that "the agreement proves that the Raw Material Treaty[49] between Denmark and Greenland works" (Sermitsiak 1984: Nov 16th), it seemed to strengthen the idea that a discursive change had taken place. If Hajer's concept of ecological modernisation is utilised here, the story line "change in attitude" describe an aspect of this change. The challenges posed by the ecologically problematic aspects of Jameson Land did not call for an alternative approach. Rather it called for more of the same, more management. In this perspective, the change in Greenlandic attitude is therefore an approximation to an existing development, a discursive formation which was

[49] I use " Raw Material Agreement"

already underway: Ecological modernisation. If one accepts this, what was accomplished by the Jameson Land Concession could turn out to be be the opposite of "Greenland as a distinct society". It seems that a distinct Greenlandic political project was in fact given up as an alternative.

Table 4: Summary of Results from 5.4

Emblematic Event	Arctic Pilot Project	Jameson Land Concession
Story line(s)	−Export of problems −Nature against the oil industry – Denmark to rescue Greenland	− A change in attitude − the credibility of Greenland as a distinct society − The road to greater independence runs through Jameson Land
Main Theoretical Perspective	− Ecological Modernisation	− Ecological modernisation

5.5 Consolidation and Change

With this section I want to ask what characterised the management of Greenlandic hydrocarbons after the Raw Material Agreement devised the administrational practice. Did the new situation make it possible to take legitimate positions *for* hydrocarbon exploitation? If this was the case, the "change in attitude" observed in the previous section would have been turned into a more permanent condition, which can be termed ecological modernisation.

As we saw, the meagre results led the companies to give up their concessions on the west coast. What happened to the five exploration drillings in the western off-shore area – the "comprehensive thing"? How did science, in this case primarily state-geologists in the Geological Survey of Greenland, act towards the political and public debates about hydrocarbons and how was the scientific estimates interpreted by others? By asking such questions, I expect to find examples of how the process of co-production continued to shape Greenland and its hydrocarbons.

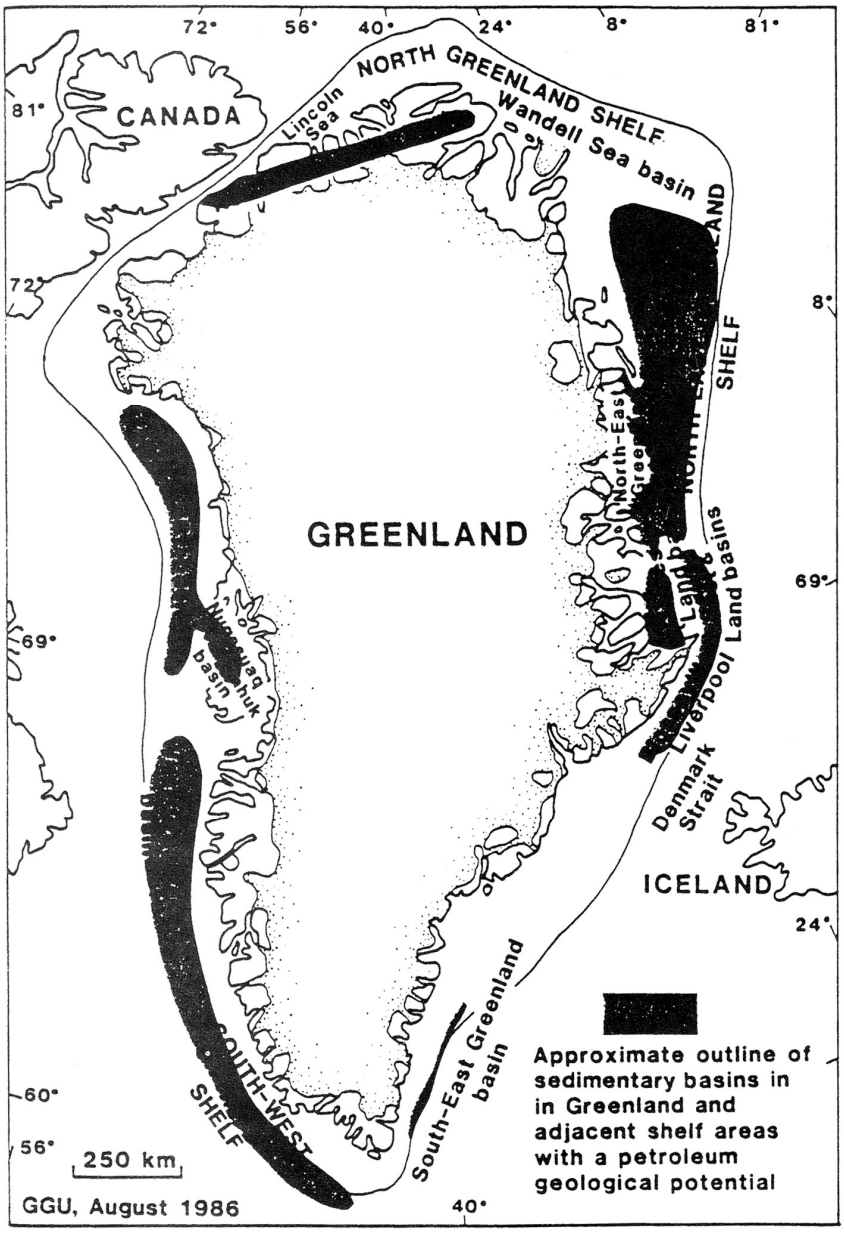
5.5.1 Estimates and Perspectives

In an article in the journal Grønland the state-geologists Karsten Secher and Bjarne Leth Nielsen examines the "background of the expectations regarding oil and mineral raw material from a strictly geological point of view". They summarise the Danish and Greenlandic positions:

> "From the Greenlandic side was the desire of total property right to the Greenlandic subsurface … and some have seen a potential economic rescue in a coming oil adventure and a flourishing mining industry. Opposite to those desires is a Danish reluctance towards giving away the entire property right to Greenland's subsurface" (Secher & Nielsen 1979:44)

Concerning hydrocarbon activities so far, the authors concluded that "the intense debate about to the coming oil millions has until now proven to be wishful thinking not based on existing conditions" (Secher & Nielsen 1979:45). Could it be that geologists and bureaucrats really did try to downplay the availability and the economic potential of hydrocarbons? If they were, others were ready to pick it up. Figure 11 is an example, though published in 1986, of an illustration of estimated reservoirs by Geological Survey of Greenland.

Figure 11: Approximate outline of sedimentary basins in Greenland and adjacent shelf areas with a petroleum geological potential



Source: Christensen 1987:338 (Courtesy of Geological Survey of Greenland)

Interpreting the geological information carried by figure 11 could be done rather differently depending on what one wanted to conclude to be possible. The marked areas indicate a "petroleum geological potential". Were the areas *potential* in the sense that all one needs is thorough investment in exploration? Or are they *potential* in the sense that they might or might not ever be relevant for hydrocarbon production?

If we consider Jameson Land, some of the newspaper articles were more moderately entitled: *Conditional Consent to Oil Explorations* (AG 1980: Oct 16th), *New Oil Explorations Imminent* (Politiken Weekly 1980: Sep 26th - Oct 2nd), *Greenland's Landsting*[50] *to make Final Decision about new Oil Drillings* (AG 1980: Sep 25th) or *New Plans for Danish-American Oil Explorations in Greenland* (Børsen 1981: May 25th). However, they still left the impression that the oil explorations would happen and that it merely depended on a political decision. At a quite early stage, the director of Nordic Mining Company, Roberto Kayser, who presumably had an interest in downplaying the hydrocarbon potential to improve the concession terms, estimated the chance of finding oil to 5 percent (AG 1980: Nov 20th). How does one interpret that? Were the chances good?

The more optimistic articles appeared to believe so. The estimates were rather explicit, exemplified by the title *First Oil Well – 10 to 15 years Ahead* (AG 1982: Aug 11th). Other articles compared Greenlandic prospects with other stories stating that "according to experts there is every possibility that the Greenlandic sub-surface contains oil deposits". The article linked the Greenlandic story to earlier successes: "The structure in this area is very similar to the Alaskan area, where the largest oil discoveries in recent years were made" (Vestkysten 1981: Jun 15th). The Norwegian oil adventure was also included: "from a geological point of view, there is every probability of finding oil in East Greenland on the same scale as that of the oil discoveries in the North Sea west of Norway" (Weekendavisen 1983: Aug 19-25th). An articles estimated the construction of a production plant, a harbour, pipelines, approximately 300 production drillings at a total cost of 100 billion Danish kroner and the oil to be transported by six ice-breaking super tankers "if 2,4 billion barrels are found" (AG 1980: Nov 20th).

Other areas were also subject to survey and evaluation. Peary Land in North Greenland was discussed in the Joint Committee on the basis of research made by the Geological Survey of Greenland in 1978-80. Referring to the Geological Survey, it was stated that "a necessary condition for the existence of oil or gas deposits is fulfilled". While the present amount knowledge was not enough to make a "certain conclusion", the Geological Survey "assessed the qualities of the area to justify further investigation"

[50] The Greenlandic Parliament

(Joint Committee 1982:15). The newspaper article *Everything Points Towards Oil and Gas in Peary Land* held that "geologists have discovered rock specimens in the northernmost part of Greenland, Peary Land, which may very well contain oil". Following this, the article stated that "this does not mean, however, that oil and gas are actually a certainty" below (AG 1982: Aug 25th). Commenting on an expedition to Peary Land, geologists called it a "terra incognita" geographically speaking, and though they were cautious making promises, they could have "an opinion on the probability of finding oil and gas" (Kristeligt Dagblad 1981: Jun 17th). Part of the co-production of knowledge about the existence of Greenlandic hydrocarbons is observed to take place in the interpretation of geological estimates and statements. Because they are unspecific, they are used to form a much more certain framing in the newspaper articles. As the geological interest moved to new areas, the exercise of making estimates was repeated, regardless of the past results.

5.5.2 Geological Professionalism

Because of the problematic and even conflicting aspects of the Jameson Land Concession, its relation to the general geological research effort in Greenland is interesting. The Greenland government "decreed that future off-shore explorations will be out of the question" (Politiken Weekly 1980: Sep 26th-Oct 2nd) and Siumut-leader Lars Emil Johansen stated that: "Siumut is still categorically against oil drillings in the sea, but possibilities of drilling on land should be investigated" (AG 1980: Sep 25th). With such positions one should expect that ambitions for other explorations, especially off-shore, would be looked upon with scepticism.

In a formal perspective, it was a question of which raw material-related research activities that needed a hearing in the Joint Council, and subsequently political approval, and which could be handled by the Raw Material Administration. Thus, the Greenlandic Government noted that there had been "changing formulations in relation to the determination of the «dividing line»" (Joint Council dok. 27/83, cited in Dahl 1986:145). A relevant aspect of the question of determining such a "dividing line" was whether a relatively short-term political decree, such as the Greenlandic Government's 'no' to future off-shore explorations, had any impact on scientific activities. While such a

guarantee made sense to a Greenlandic Government that was trapped between a vulnerable economy and political ambitions, it was probably not very interesting to geologists specialising on Greenland. Yet, despite the guarantee, the Greenlandic Government did acknowledge the need for "as early as possible to possess the most comprehensive background knowledge … regarding an environmentally responsible arrangement of later oil activities" (Joint Council 1984:28). Was it believed that scientific research was neutral and that a decision about industrial oil activities was a separate question?

An exploration drilling is a rather expensive project and something that requires a certain financial capacity. Perhaps the companies had given up the concessions too early? Not all the data from the drillings was analysed and geologists from the Geological Survey of Greenland wanted to "form a much more complete picture of the geophysical conditions". The Greenlandic Prime Minister and Joint Committee Chairman at that time, Jonathan Motzfeldt, "flatly denied" that it had anything to do with oil development: "not at all. It has nothing to do with the policies of the Government … They want to complete the work out of purely professional interest" (Sermitsiak 1984: Apr 27th). In the same article the director of the Geological Survey of Greenland, Martin Ghisler, maintained that "a new interpretation of the data may show that the explorations were done in the wrong places off the west coast. It may be possible to point out new exploration sites, and this is of course of commercial interest". From Ghisler's statements it can be observed that he does not separate professional/scientific and commercial interest. This indicates the "professional interest" mentioned by Motzfeldt is part of a political demarcation, not substantiated by the "professionals". Could it be that a "commercial interest" was problem for Motzfeldt, but not for Ghisler?

5.5.3 Towards New Activities

The seminar *Olje- og gassutvinning i Vestnorden*[51] (Nordisk Ministerråd 1987), arranged by the Nordic Council in 1986, did not display such different opinions on the commercial aspects of hydrocarbons as mentioned above. Instead, the statements made at the seminar seemed represent an integrated view on the ambitions of more hydrocarbon-activities.

[51] Oil- and gas extraction in the Western Nordic

The no-to-off-shore guarantee had been left for good. With the views of ecological modernisation as part of administrational and political practice, the co-production could take new forms. The framing of the hydrocarbon-issue at the seminar points towards the legitimacy of new activities.

In 1986, the world crude oil price had dropped to the lowest level of the decade, one third of the price from 1980, something that affected the liquidity and consequently the exploration budgets of many oil companies (Noreng 2006:14-23). Partly as a result of this, the Jameson Land Concession area was relinquished in 1990, as the terms of the concession, seismic survey and exploration drillings had not been fulfilled.

Aqqaluk Lynge, a Greenlandic politician and member of the Greenlandic Government at the time, began by reminding that the Raw Material Agreement did not fulfil all of the Greenlandic desires. Nevertheless, he saw the Raw Material Agreement as a "sustainable construction". Regarding future hydrocarbon activities, Lynge stated that the Greenlandic Government "wholeheartedly" supported more activities on "both shelf and land areas, by several companies". The Government did not want be dependent on a single project − Jameson Land. He presented how Nunaoil, "owned fifty-fifty by the Danish state and the Home Rule", *along* with The Geological Survey of Greenland was to carry out a six year seismic programme, KANUMAS (Lynge 1986:29-36).

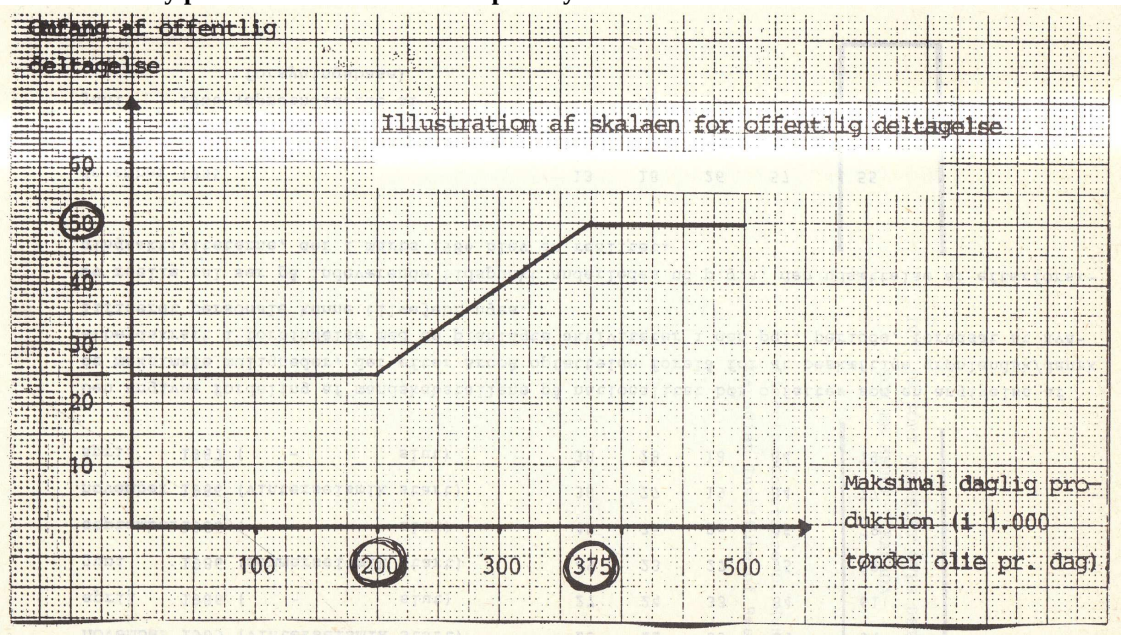
While Lynge was careful to spell out that KANUMAS was short for Kalaallitt Nunaata Marine Seismic programme[52], the director of The Geological Survey of Greenland, Martin Ghisler, seemed not to be concerned about the symbolism of names. In his presentation KANUMAS was "planned and presented by The Geological Survey of Greenland", not mentioning Nunaoil. In addition to 22.000 km of seismic lines along East and West Greenland, the programme implied reprocessing the well data from 1976-1977. Ghisler avoided any reference to opinions outside the geological realm. The much debated off-shore explorations of 1976-77 were the referred to as "shelf area which has been subject to the oil companies' surveys". The eastern part of Peary Land "demands another *oil-geological assessment*"; marine-seismic surveys were "negative in an *oil-geological perspective*" and "the largest continuous area which is *oil-geologically interesting*" is on the North Greenlandic shelf. In a co-production perspective it is

[52] Greenland's Marine Seismic programme

interesting that Ghisler uses the phrase “oil-geological”, which facilitates the same type demarcation made by Motzfeldt in the previous subsection. Another example on the problematic boundary between science and politics, is when Ghisler asserts that Jameson Land “probably” has the best hydrocarbons potential considering “the very large extraction and transportation problems in North Greenland” (Ghisler 1986:39-41). This seems to extend an oil-geological assessment a bit because Ghisler obviously *has* an opinion about what project should be preferred.

The Raw Material Administration was represented by Secretary Birthe V. Steffensen. She explained the content of the Jameson Land Concession and its relation to the Danish North Sea concessions. Having spent most of the time presenting the Jameson Land Concession, and finally the future plans for explorations, she ends her presentation by noting that the concessionaries had stopped all activities because of the low oil prices of 1986 (Steffensen 1986: 151). That this uncertainty about if the plans are ever carried out is interesting because the presentation is so specific, exemplified by figure 12 below:

Figure 12: Illustration of public involvement. X-axis: Extend of public involvement. Y-axis: Maximum daily production in 1.000 barrels per day.



Source: Steffensen 1986:153 (Courtesy unknown)

As displayed by figure 12, the administrative framework included a model showing the official Danish-Greenlandic involvement in relation to the potential production. It shows how this involvement could increase from 25 percent at 0-200.000 barrels per day to 50 percent at 375.000 barrels per day. As a comparison, the Danish and Norwegian North Sea outputs were 60.000 and 823.000 barrels per day, respectively (BP 2009). Who could tell what was most realistic: 0 or 375.000 barrels, or somewhere in between?

The concessionaries pointed to the world crude oil price decrease of 1986 as the reason to suspended explorations in Jameson Land for two years ahead. Meanwhile they would renegotiate the concession term. They were not alone − Greenland wanted to renegotiate the terms of Denmark and Greenland's sharing of the public revenue from hydrocarbons exploitation. The conclusion by Steffensen mirrored an uncertain situation: "the framework for oil activities which was described here will possibly be subject to *considerable change* within a *foreseeable future*" (Steffensen 1986:121-156, my italics). Expecting a new process of co-production to take place, it is noted how the time perspective is "a foreseeable future". I interpret Steffensen's statement as an indication of that Greenlandic ambition for hydrocarbon-activities now had taken the initiative in designing the administrative framework.

The last Greenlandic presentation was a thorough review of "hydrocarbon activities in Greenland" by the Secretary from the Home Rule, Mads Christensen. As mentioned by Steffensen. He referred to the expression of "some discontent" about the model of sharing public revenue of hydrocarbon extraction. Along with Lynge, Christensen argued that the Greenlandic share will only replace the Danish block grant and thus there are "no real incentives for Greenland". The West Coast drillings − the "comprehensive thing" − are not forgotten: "there is no reason to omit the fact that it plays a certain role in this context that the offshore drillings that took place in 1976 and 1977 gave rise to a widespread Greenlandic resistance, in the public opinion and among our (Greenlandic) politicians, towards off-shore drilling" (my parenthesis). The fear of damage to fisheries and environmental impacts in case of oil spills or blow-out accidents made up the basis for that attitude. The paragraph is exactly equal to a passage in Lynge's presentation. Still in line with Lynge, Christensen states that this "widespread Greenlandic resistance" had changed during "the latest couple of years": a "growing

political understanding" about the sensitivity of only having one concession resulted in a long-term strategy, with activities "on-shore as well as off-shore Greenland". As Steffensen, Christensen's presentation indicates that change is going to happen on Greenlandic initiative. Passing the hurdle of "Greenlandic widespread resistance", Christensen seems sure that this has been resolved. The creation of the Greenlandic nation continued closely connected to the hydrocarbon-issue. As Christensen concludes: "it seems that things are on the move" Christensen 1986:329-340). In fact, they were already moving.

5.5.4 Summary and Discussion of Results

The analyses showed that seemingly objective presentations of knowledge could create a *politics of hydrocarbons*. When Secher & Nielsen wrote from a "strictly geological point of view" they nevertheless commented on the Home Rule process and the expectations of an oil adventure.

Reprocessing the west coast data was initiated at a time when Greenlandic politicians many times had stated that no offshore activities were ever to be carried out again. How do we understand the state-geologist's attempt to reopen the case? As Jonathan Motzfeldt, representing the Greenlandic Government, stated it was of "professional interest". From the perspective of co-production it makes little sense to insist on the boundary between geology and politics regarding hydrocarbons. From the early 1970s to the mid 1980s the hydrocarbon-issue had changed character. It was no longer one problem among others. During the Home Rule process hydrocarbons manifested themselves as the fundamental question which could break the negotiations. From being a threat to the definition of a "Greenlandic Greenland", hydrocarbons became a cornerstone in the ambitions of autonomous Greenland, as noted in 5.4.7. A politics of hydrocarbons had come into being, with its own institutions, strategies etc., which included politicians, scientists and administrators. Such a constellation made up the Greenlandic presentations at the seminar *Oil- and gas extraction in the Western Nordic,* in which Lynge and Christensen referred to a "growing political understanding" about strategies regarding hydrocarbons. It seems that Motzfeldt (in 1984) wanted to close the discussion of new hydrocarbon-activities by referring to a "purely professional interest".

Two years later (in 1986), Lynge and Christensen talk about activities in “on-shore as well as off-shore Greenland”. When an administrative framework had been formalised the discussion went from being about basic questions – oil or no oil – to a detailed discussion about how to carry out the hydrocarbon activities.

Table 5: Summary of Results from 5.5

Emblematic Issue(s)	− The reprocessing of West Coast data
Story line(s)	− Oil-geologically interesting − Growing political understanding − A sustainable construction
Main Theoretical Perspective	− Co-production

6.0 Summary of Results

The analysis, which was distributed over five sections, sought to answer the research question by interpreting relevant statements and events from the period in question. It also included preceding events and statements to contextualise and to identify relevant parts of the process. This chapter will summarise the results, schematically presented in table 6 below.

The first section investigated some of the historical background of hydrocarbons in Greenland. This pointed towards geology as the field where many of the general thoughts about Greenland's potential in a Danish perspective were spawned. This framing was exemplified by Greenland being presented as a "lottery slip". Not only was geology the first and leading scientific discipline in Greenland for many years. Many prominent and popular explorers were also geologists. The case of the East Greenland occupation in the international court is the most important event during the period examined by the section. It shows that the combination of science and exploration was a powerful tool in gaining territorial control over all of Greenland.

The second section focused on the connection between hydrocarbons and modern development of the Greenlandic society. The core event, emblematic for its time, was the discovery of North Sea oil, or perhaps more the consequences it had. The Mining Act of 1965 and the Concession Committee indicated the beginning of a growing interest in hydrocarbons exploitation as a crucial factor of Greenlandic development. Several institutions filled the positions of supplying the needed knowledge, for instance the Geological Survey of Greenland. Though the development was questioned by many, the concessions off the west coast were granted. Protests against the Danish controlled and initiated industrial development began to be more visible. It now became clear that the Homeland position was a significant force of legitimacy and argumentation. The discussion at the time, exemplified by story lines such as the "comprehensive thing" and "to open up Greenland", is now placed between the opposing positions of Homeland and Frontier. Curiously, the story line "the Norwegian pattern" represents something new in the sense that it differs from a strictly Danish framework.

Stating that Greenland was Denmark's last frontier is to simplify too much; developments took place within a broader regional context. Concerning administrative

attitude − exemplified by the Concession Committee − it is also a slight move away from the Frontier position. Towards *what* seemed not to be entirely clear at the time.

The third section went more thoroughly into relating hydrocarbons to the broader political development in Greenland, represented by the Home Rule process as the major event. The section had a double view on the Home Rule process.

The first view was on the new questions and new politics which were raised and debated before and during the process. It focused on the Greenlandic statements relating to the Homeland position with an ethnic/national emphasis. This was exemplified by the story line "a more Greenlandic Greenland". The new politics, especially of the Siumut party, provided the background for a broad Greenlandic questioning of resource extraction. This was influenced by the west coast offshore concessions, the "comprehensive thing", and the Danish dominated administrative process around this.

Many on the Greenlandic side of the Home Rule Commission insisted that Greenlanders were a people with rights, while the leading Danish negotiators insisted on solidarity in the sense that no-one in the kingdom should have special rights. The discussion of the phrase "fundamental rights" illustrates this. However, regarding hydrocarbons the ethnic or national rights question was not the only challenge. The blowouts in 1977 are important because they reinstalled the environmental perspective in the rights-debate. The blowouts showed the risk of pollution as something that could change the hydrocarbon-issue. It was not only a debate about the right to explore and extract, but also about the right to pollute.

The second view emphasised the solution provided by the process, exemplified by the Raw Material Agreement. The point was to look for changes brought about by the hydrocarbon-issue in the way nature was going to be managed after the Home Rule process. The Home Rule process was seen as a first step towards ecological modernisation in the sense that the Home Rule Commission actually managed to devise an administrative solution. The story line "principle of equality" captures the way the Raw Material Agreement framed the natural resources. From being a contested area, it seemed that now hydrocarbons would be the primary driving force in a Danish-Greenlandic partnership. Figure 4-6 displayed that everybody did not see the agreement as "equal". In fact, the insistence on the term "equality" is interesting since almost all

institutions are placed in Copenhagen. An overview of the presentations from a conference in Qaqortoq was analysed in relation the coming joint administration of hydrocarbons. While many relevant and difficult questions were brought up, the conference itself seemed to take place without major confrontations. The diverging opinions presented at the conference did not exclude one another.

The fourth section is where the turning point regarding discursive structures was made explicitly visible − from the conflict line of Homeland/Frontier towards ecological modernisation as the primary realm of reference. The section examines two emblematic events, the Artic Pilot Project and the Jameson Land Concession. The events are emblematic in the sense that they each portray core features of the discursive changes of hydrocarbons in Greenland in the period. The aim is to understand how hydrocarbon activities in Greenland continued under the Home Rule administration, where central politicians had argued against the concessions and drillings on the west coast.

It was found that the Arctic Pilot Project exemplified lines of argumentation closely related to a Homeland/Frontier conflict. The opposing discourse-coalition employed many of the same arguments as the Greenlandic side in the Home Rule process, which resembles the Homeland position in many aspects. The Canadian interests behind the project were aligned to a position close to the Frontier. Since it was concluded that this argumentative structure by and large was left behind during the Home Rule process, it seems that the discussion of the Artic Pilot Project relates backwards in time. The Arctic Pilot Project was argued to be an event that mobilised a very broad discourse-coalition opposing the project. The coalition consisted of a large spectrum of political, administrative, organisational and public opinions. Almost everyone in the coalition agreed that this was an “export of problems”. Most aspects of the project were subject to suspicion, exemplified by the story line “nature against the oil industry”.

On the other hand, The Jameson Land Concession was not understood as having a discourse-coalition with a similarly clear aim. Though the two events may seem alike, there were obviously large differences. It became apparent that many of the same ingredients used to oppose the Arctic Pilot Project were present: There were objections based on ecological arguments, both with regard to damage to nature and possibilities of hunting. The concession-project was experimental in the sense that it was the first of its

kind in Greenland, and it could reasonably be understood as a precursor for further industrial developments. The huge difference was that those who stated the ecology-based arguments against the Jameson Land Project had a much smaller coalition. It was some Greenlandic, but mainly Danish voices, who wanted to conserve the Greenlandic environment, exemplified by the open letter from the Chairman of Greenpeace Denmark. The members of Attasut who voted against the concession objected to the pace, the low level of involvement of the locals and the lack of information. But they did not question the project in principle.

The coalition which carried the Jameson Land Concession through used the core arguments in a new way; something indicated by the story line "change in attitude". The uncertainties related to the concession-project were turned to an argument for, not against. The central issues involved were separated. Ecological challenges could now be a matter of supply base localisation *or* compensation to hunters and fishers *or* damage done by the seismic surveys. But the basic link provided by the Homeland position, in a Homeland/Frontier conflict, was not legitimate any more. The issues did not compose a broad and interconnected front as they did in the opposition-coalition. Similarly, the hydrocarbon-activities were separated into exploration and extraction. The section shows how it became possible to postpone the discussion of the latter. More knowledge was needed before such a discussion was relevant and before decisions could be made. In other words, more management and more surveys. This is why the Jameson Land Concession is understood as a definitive turn towards ecological modernisation. The related story line was termed "The credibility of Greenland as a distinct society" to mark how such a change was seen as central to Greenland's "road to greater independence", another story line. The ambitions of autonomous Greenland now were on a par with the ambitions implied by ecological modernisation. With these issues in place, hydrocarbon extraction could become part of the narrative of autonomous Greenland too.

The fifth section of the analysis ends the period in question and looks beyond by describing central arguments from a conference which took place in 1986. The section picks up on the views articulated by the "change in attitude" related to the Jameson Land Concession. From a co-production perspective, emphasis is now turned towards scientists, state geologists in particular, and the way politicians and administrators frame

nature through the hydrocarbon-issue as a scientific area. The emblematic issue of the section is the reprocessing of west coast data; thereby re-producing (recycling?) the story line termed the "comprehensive thing" in section two. The section notes how Greenlandic politicians defended the reprocessing as a "professional interest". In this perspective, the possibilities of relating vague geological estimates to other realities, for instance the Norwegian North Sea discoveries, were investigated. The section finds that many newspaper articles convey over-optimistic conclusions, but also that geologist pointed to the desires of a Norwegian-like oil adventure. This is also exemplified by figure 11 (p.93), with the areas of "oil-geological interest". Even if geologists and politicians wanted to separate things, the section indicates how the hydrocarbon-issue mixed desires and facts. The process of co-production continued to shape the way hydrocarbons was related to the narrative of autonomous Greenland.

The statements from the seminar in the section are confirming the result from section four, especially concerning the Jameson Land Concession. There is now a "growing political understanding" of the need for mineral resource projects and the Raw Material Agreement is characterised as "a sustainable construction". That the Jameson Land Concession was terminated during 1986 did not disturb the presentations of for instance public involvement, figure 12 (p.98), by the newly founded Danish-Greenlandic oil company Nunaoil. The Raw Material Agreement had worked the way it was supposed to and the desire of new hydrocarbon-activities based on a "growing political understanding" was seen as a culmination of the change.

Table 6: Summary of Result from 5.1-5.5 in a Chronologic Perspective

Time / Section	**Emblematic Issues (or event)**	**Story lines**	**Main Theoretical Perspectives**
1920-1960 / 1	− East Greenland occupation in the international court	− The lottery slip − Same phenomenon as in Texas	− Co-production
1960-1975 / 2	− North Sea Oil discoveries/Norwegian	−A comprehensive thing − To open up Greenland	− Co-production

	discoveries − The West Greenland concessions	− The Norwegian pattern	
1975-1980 / 3	− The blowouts − The Raw Material Agreement	− A more Greenlandic Greenland − Fundamental rights − Principle of equality − Political-moral demands	− Ecological modernisation
1980-1985 / 4a	− Arctic Pilot Project	−Export of problems −Nature against the oil industry – Denmark to rescue Greenland	− Ecological modernisation
1980-1985 / 4b	− Jameson Land Concession	− A change in attitude − the credibility of Greenland as a distinct society − The road to greater independence runs through Jameson Land	− Ecological modernisation
1985-1987 / 5	− The reprocessing of west coast data	− Oil-geologically interesting − Growing political understanding − A sustainable construction	− Co-production

7.0 Conclusion

The aim of this thesis has been to answer Q1: How did the issue of hydrocarbons relate to the framing and management of Greenland's natural resources and nature between approximately 1975 and 1985?

The issue of hydrocarbons gave content to an eco-modernist turn in the administrative framework of autonomous Greenland. From 1975-1985 a change of the framing is visible through the way problems relating to the hydrocarbon-issue is discussed, both in formal fora such as the Danish parliament and the Home Rule Commission as well as more informal fora such as news papers and the Journal Grønland.

The research question prompts attention to the way events and statements became legitimate. I found that hydrocarbons were part of the Danish discussion about Greenland from a quite early stage, something which framed the image of Greenland. Larger events, such as the case of the East Greenland occupation in the international court and the North Sea discoveries helped legitimise hydrocarbon-related statements through the connection to central narratives.

Two important aspects of the hydrocarbon-issue show that it was changing character: ecological issues and Greenlandic rights claims. In the beginning all of these were intertwined, strongly connected within the Homeland position, in a way that made it hard to recognise their difference. This is indeed related to *the framing and management of the Greenland's natural resources and nature.* During the Home Rule process it slowly became clear that the right to extract and the right to pollute represented two different issues. While the new politics of Greenland had claimed the right to govern both, the sovereign right to extract was given up. The character of the Raw Material Agreement proposed an administrative framework that dealt with the politics of hydrocarbons including pollution, but left the rights question behind with a vague formulation. Since the rights question was solved, the environmental problems remained the main issue.

This way, the hydrocarbon-issue became related to the increased focus on the management of nature and natural resources. While earlier the hydrocarbon-issue had revoked conflict between rights and interests, it began to revoke conflict between modern

development and nature. Contrary to the rights-discussion, the ecologically problematic aspects of hydrocarbon-activities were not settled. In the case of Greenlandic hydrocarbons, this implied that a basic yes/no standpoint regarding exploitation became difficult to insist on, because nobody knew the consequences for sure. Thereby, the Greenlandic hydrocarbons and nature became a complicated matter, something that should be managed. From this perspective, the Home Rule process can be summed up as: Those who manage are those who have the right to pollute and vice-versa.

Hydrocarbon-activities in Greenland had the potential to become an ecological dilemma. The politico-administrative turn, begun by the Raw Material Agreement, was a change of framing and management which by and large resembled Hajer's ecological modernisation. During the Arctic Pilot Project and the Jameson Land Concession, the argumentation around the hydrocarbon-issue became an environmental question. The environmental challenge it posed centred attention on local problems and risks; it was still a matter of blowouts or other oil spills. With regards to Latour, it can be questioned whether this was about ecology or just another way to modernise. It seems as though the administrative framework, which was originally made for hydrocarbons, was extended to cover the environment too.

The hydrocarbon-issue gradually moved towards the centre of the creation of autonomous Greenland. Hydrocarbons in Greenland and the Greenlandic nation were co-produced in the same process. Thus, when hydrocarbons were connected to an ecological modernisation it allowed the newly formed Home Rule administration, in a joint Danish-Greenlandic effort, to adopt this, not only as a road to independence, but as something giving credibility to Greenland as a distinct society.

8.0 References

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8.2 Appendix 1-7

Appendix 1: List of details regarding *Konference vedrørende mineralske råstoffer i Grønland* of 1978

P R O G R A M

for

"KONFERENCE VEDRØRENDE MINERALSKE RÅSTOFFER I GRØNLAND".

Sulissartut Højskoliat, Julianehåb, 2o. juni - 23. juni 1978.

1. dag, tirsdag den 2o. juni.

Formiddag.

Kl. 9.3o Konferencen åbnes af ministeren for Grønland, Jørgen Peder Hansen

---------o--------

Den nuværende politik i forbindelse med efterforskning og udnyttelse af råstoffer i og ved Grønland. (Ministeren for Grønland, Jørgen Peder Hansen og formanden for Grønlands landsråd, Lars Chemnitz).

Kl. 12.oo - 14.oo Pause.

Eftermiddag.

Hjemmestyreordning vedrørende råstoffer. (Landsrådsmedlem Jonathan Motzfeldt, professor, dr. jur. Isi Foighel, formand for Hjemmestyrekommissionen).

2. dag, onsdag den 21. juni.

Formiddag.

Kl. 9.3o Lokaliseringspolitiske og beskæftigelsesmæssige aspekter i olie-, mine- og vandkraftindustrien i Grønland. (Borgmester Emilie Lennert, forbundsformand Odaq Olsen).

Kl. 12.oo - 14.oo Pause

Eftermiddag.

Samfundsøkonomiske virkninger for det grønlandske samfund og for rigsfællesskabet i øvrigt i forbindelse med minedrift og en evt. udnyttelse af vandkraft og oliefund (folketingsmedlem Lars Emil Johansen, kommitteret, cand. jur. Jørgen Hertling).

3. dag, torsdag den 22. juni.

Formiddag.

Kl. 9.3o Generel orientering/statusrapport vedrørende råstoffer i Grønland. (Direktør K. Ellitsgaard-Rasmussen, Grønlands Geologiske Undersøgelse). (Kontorchef Gert Vigh, Ministeriet for Grønland). Den norske olieudvikling. (Direktør F. Hagemann, Oljedirektoratet, Norge).

Kl. 12.oo - 14.oo Pause.

Eftermiddag.

Lokaliseringspolitiske og beskæftigelsesmæssige aspekter i olie- mine- og vandkraftindustrien i Grønland. (Vicedirektør H. Ølgaard, Grønlands Tekniske Organisation). Erhvervsmæssige og økonomiske betragtninger over relationerne mellem evt. olie-, mine- og vandkraftudnyttelse og de bestående erhverv i Grønland. (Angmalortok Olsen, formand for Erhvervsudviklingsrådet, professor Anders Ølgaard).

4. dag, fredag den 23. juni.

Formiddag.

Kl. 9.3o Fiskerimæssige og miljømæssige aspekter i forbindelse med olie-, mine- og vandkraftudnyttelse. (Landsrådsmedlem Niels Carlo Heilmann (KNAPP), fiskeribiolog Poul Johansen, Grønlands Fiskeriundersøgelser).

Kl. 12.oo - 14.oo Pause.

Eftermiddag.

Sociale og samfundsmæssige aspekter for det grønlandske samfund i forbindelse med minedrift og en evt. udnyttelse af vandkraft og oliefund. (Professor Robert Petersen).

Konferencens afslutning ved borgmester Henrik Lund.

Appendix 2: List of Articles from the journal Grønland

The journal Grønland, chronological list of articles. The style of reference is: year(issue), pages: author(s) (author's profession or back ground): title

1970(5), pp. 129.136: Bjarne Leth Nielsen (Cand. scient. in Geology): *På spor af sjældne metaller i sydgrønland – man har boret på kvanefjellet, kan uranmalmen brydes?*

1970(6), pp. 173-179: W. Dansgaard, S.J. Johnsen & H.B. Clausen (Physics Laboratory II, H.C.Ørsted Institute): *Grønlands klima – før,nu og 50 år frem*

1970(8), pp. 225-228: Gert Asmund (Chemical Engineer and PhD): *Danmark bør have et institut for minedrift*

1970(12), pp. 374-375: Erling Høegh (Politician, Chairman of the provincial council 1967-71): *Grønland, minedrift og selvrespekt*

1971(1), pp. 14-21: Karsten Secher (State geologist): *Geologi i Grønland – en geologisk vandreudstilling til grønland*

1971(3), pp. 65-76: Erik Hesselbjerg (Permanent Secretaty in the Ministry for Greenland): *Muligheder i Grønlands undergrund?*

1971(12), pp. 365-374: Bjørn Thomassen (?): *Prospektering i Østgrønland*

1972(4), pp. 97-110: Erling Fundal (Mag. Scient): *Det vestgrønalndske jern – geologiens arbejdsfelt og eskimoens værktøj*

1973(2), pp. 58-64: Børge Fristrup (Senior lecturer) og Jørgen Taagholt (Ingeneer): *Geofysisk aktivitet i det nordøstligste Grønland*

1973(2), pp. 65-69: K. Ellitsgård-Rasmussen (Director of the Geological Survey of Greenland) & Nils Henriksen (statsgeolog): *Perpsektiver ved fortsat geologisk udforskning af Nordøstgrønland*

1973(3), pp. 100-102: Hans Berg (Mag.Scient in etnography): *Om at lukke Grønland op*

1973a(4), pp. 123-126: Erik Hesselbjerg (Permanent Secretaty in the Ministry for Greenland):
»Om at lukke Grønland op«

1973(5), pp. 164-166: Finn Lynge (Pater): *Cominco, Greenex og socialmedhjælperne – nye problemer, gamle problemer*

1973(6), pp. 181-189: Martin Ghisler (Geologist): *Malmefterforskning i Grønland*

1973(6), pp. 190-193: Aksel Mikkelsen (Engineer): *Om at lukke op for Grønlands resourcer*

1973(6) pp.194-198: anonym & (Paul Marshall (Engineer)): *Grønland – et udviklingsland, interview med Paul Marshall*

1973(7), pp. 242-245: Dan Laursen (Dr.Phil): *Profiler af udenlandske videnskabsmænd i Grønland. V.*

1973b(7), pp. 246-249: Erik Hesselbjerg (Permanent Secretaty in the Ministry for Greenland): *Ingen illusioner om, at begyndende mineralvirksomhed i Grønland bliver problemfri*

1974(3), pp. 65-71 : Ellen Boye (?): *Samarbejde rundt om Nordpolen*

1974(5), pp. 143-154: Bjarne Leth Nielsen: *Uraneftersøgning og uranforekomster i Grønland*

1974(6), pp. 195-196: Arctic People's Conference: *Dansk oversættelse af resolutionen fra Arctic People's Conference, 22-25 november 1973*

1974(7), pp. 225-230: Ole Petersen og Robert Petersen (Linguist)**:** *Sælfangeren og vejret*

1974(9), pp. 285-292: Jens Dahl (Anthropologist): *Minedrift og samfund*

1974(9), pp. 273-284: Ole Stecher og Peter Thy (?): *Minedrift i Grønland – om rentabilitet af malmforekomster og muligheden for en effektiv kontrol med mineselskaber*

1975(7), pp.209-212: Jørgen Jørgensen (Historian): *Omlægning af kommission for videnskabelige undersøgelser i Grønland*

1975(7), pp.213-220: Jørgen Taagholt og H.C.Bach: *Hvad foregår der af videnskabelig aktivitet i Grønland i dag?*

1976(1), pp.5-14: Finn Lynge: *En administrator fra de canadiske nordområder ser tilbage – interview med Graham Rowley*

1976(2), pp.58-64: Jakob Janussen (?): *Hvad er hjemmestyrekommissionen og hvad laver den egentlig?*

1976(7), pp.209-214: Jens Brøsted og H.C.Gulløv: *Grønlandsk hjemmestyre på danske betingelser?*

1977(1), pp.22-24: Isi Foighel (Dr.jur, Chairman of the Home Rule Commission): *Hjemmestyrekommissionens arbejde, ligeværdigt samarbejde og neutralt formandsskab*

1977(3), pp.69-85: Ole B.Olsen og Anker Weidick (Engineer): *Vandkraft i Grønland – perspektiver og problemer*

1977(3), pp.95-104: A. Eichstedt Nielsen og Georg Lind Petersen: *Status for Grønlands energisituation*

1977(3), pp.86-90: Jørgen Taagholt og Preben Gudmandsen: *Det ukendte land under indlandsisen*

1977(6), pp.165-170: Carl Johan Ohsten (?): *Nedlæggelsen af kulminebyen Qutdligssat*

1978(1), pp.70-76: Anker Jørgensen (Premier Minister of Denmark 1972-73, 1975-82): *Anker Jørgensen's tale i Grønlands Radio 8. august 1977*

1978(1), pp.64-69: Lars Emil Johansen (Politician, GL): *MF Lars Emil Johansens tale i folketinget den 16. januar 1974*

1978(3), pp.106-109: Axel Kjær Sørensen (historian): *Ophævelsen af Grønlands kolonistatus et grønlandsk krav?*

1978(6), pp.191-203: Angmalortoq Olsen (?): *Betragtninger om hjemmestyre med specielt henblik på erhvervslivet*

1979(2), pp.44-51: Bjarne Leth Nielsen og Karsten Secher: *Grønlands mineralrigdomme*

1980(5), pp.117-144: Jørgen Taagholt: *Forskning i Polhavet*

1981(1), pp.16-21: Peter Appel (Geologist): *Geologiske undersøgelser i Isukasia, Nuuk kommune*

1981(2), pp.33-40: Bjarne Leth Nielsen: *Ti års regional uraneftersøgning i Grønland*

Appendix 3: List of Interview details

Gert Vigh (DK) – Retired Director of the Raw Materials Administration. Face-to-face interview 21.04.09.

Kim Andersen (DK), MP (Denmark), Chairman of the Joint Council (from 2003), face-to-face Interview 22.04.09

Kaj Kleist (GL), Retired Director of the Home Rule administration. Telephone interview 18.05.09

Jørn Skov Nielsen (DK), Director if the Bureau of Minerals and Petroleum in Greenland, recommended by the Home Rule representation in Copenhagen. Face-to-face Interview 25.05.09

Anonymous (GL), Greenlandic intellectual. Telephone interview 03.07.09

Appendix 4: List of News Paper Articles

Press Extracts on Greenland 1981-1985				
Issue	Page in issue	Date	Newspaper	Title & author (if stated)
v1n1	10	1980 Sep 12-19	Politiken Weekly	*Heated debate on development of resources in Greenland*
	16	1980 sep 25	Atuagagdliutit / Grønlandsposten (AG)	*Greenland landsting to make final decision about new oil drillings*
	9	1980 Sep 26	Politiken Weekly	*New Oil Explorations Imminent*
v1n1	38	1980 oct 2	AG	*The Canadian supertankers will be put into operation*
	42	1980 oct 2	AG	*Greenland is to participate in negotiations about supertankers*
	45	1980 oct 2	AG	*Qaanaaq wants to from common front with inuit in Canada againt supertankers*
	5	1980 Oct 16	AG	*Oil and the East Greenlanders*
	7	1980 Oct 16	AG	*Conditional Consent to Oil Explorations*
	37	1980 oct 16	AG	*The landsstyre maintained its opposition to tankers*
	44	1980 oct 16	AG	*Against supertankers*
v1n2	2	1980 nov 20	AG	*Possibility of Danish approval of APP*
v1n2	6	1980 nov 20	AG	*Oil companies ready to invest 100 billion kr in east Greenland*
v1n3	9	1981 mar 5	AG	*Peary land next goal in oil exploration*
v1n4	10	1981 april 14	Flensborg Avis	*Denmark is hesitating with an environmental treaty for arctic natural gas*
	16	1981 apr 19	Helsingør Dagblad	*Canada's economy and the environment in the arctic ocean are the pavons in the game for a new supertanker route*
v1n5	7	1981 may 25	Børsen	*New plans for Danish-american oil explorations in Greenland*
v1n5	8	1981 may 27	Jyllandsposten	*Canada is pressing for environmental agreement with respect to Greenland*
	6	1981 jun 3	Jyllandsposten	*Environmental agreement with Canada in connection with the arctic pilot project delayed*
	10	1981 june 15	Vestkysten	*Oil pipeline across greenland*
v1n5	11	1981 jun 17	Kristeligt Dagblad	*Interesting results in north Greenland*
	13	1981 jun 17	Helsingør	*Opposition to supertankers along the coast*

			Dagblad	*of Greenland and Canada*
	14	1981 jun 22	Jyllandsposten	*Attempt to continue research in Greenland*
	1	1981 jun 26	Information	*Postcard from Greenland (VII): a new Alta*
	15	1981 jul 24	Kristeligt Dagblad	*Arctic gas*
v1n6	28	1981 oct 20	Jydske tidende Sønderborg	*Greenland fears Canadian supertankers*
	26	1982 jan 6	AG	*Dkr 200,000 to Danish peary land expeditions*
	29	1982 jan 20	AG	*APP hearings begin February 2*
	30	date lost	AG	*We must ally ourselves with environmental organizations*
	34	1982 jan 27	AG	*Defeat app?*
v1n7	19	1982 mar 4	AG	*Denmark to the rescue of Greenland against Canada*
	7	1982 mar 6	Information	*Greenland's struggle*
	10	1982 mar 10	Socialistisk dagblad	*Greenlandic criticism of Canadian supertanker project*
	12	1982 mar 17	AG	*APP also reads ag*
	13	1982 mar 17	AG	*APP is a blemish on canada's reputation as a humane country*
	14	1982 mar 17	AG	*APP would like to go to Greenland*
	15	1982 mar 24	AG	*Greenlandic participation in the second part of the app hearings as well*
v2n1	5	1982 jun 9	AG	*APP is to be pushed trough with offers of jobs and money*
	6	1982 jul 9-15	Politiken Weekly	*Industrial research in Greenland*
	7	1982 jul 20	Næstved tidende	*The search for oil on again in Greenland*
	10	1982 aug 6-12	Politiken Weekly	*Oil venture in jameson land encounters resistance amongst hunters*
	13	1982 aug 6-12	Politiken Weekly	*Greenlandic oil search free for state*
	15	1982 aug 11	AG	*First oil well – 10 to 15 years ahead*
	17	1982 aug 18	AG	*APP gas may smooth relations between USA and Europe*
	18	1982 aug 25	AG	*Everything points towards oil and gas in peary land*
v2n2	29	1983 apr	AG	*995,000 kroner for research in jameson land*
v2n3	51	1983 jul 1	Sermitsiak	*ICC sets same conditions for jameson land as for APP*
	8	1983 jul 20	AG	*Greenlandic workers in jameson land? – part 1* (søren Andersen and jens matiesen)
	14	1983 aug 10	AG	*Greenlandic workers in jameson land? –*

				part 2
	19	1983 aug 19-25	Weekendavisen	*New concession will pave the way for investment of billions in Greenlandic oil explorations*
v2n4	1	1983 sep 7	AG	*Marine agreement to safeguard the fragile arctic*
	3	1983 sep 21	AG	*New joint company entering the search for oil*
	5	1983 sep 21	AG	*Concession not obtained without a fight*
	7	1983 sep 21	AG	*Jameson land – local worksforce involved in first work phase*
	8	1983 nov 30	AG	*Supertankers threaten hunting population and environment in east Greenland*" (Hans Meltofte, ornithologist
v3n1	7	1983 dec 21	AG	*Joint council rejected acceleration of jameson land project*
	9	1983 dec 30	Sermitsiak	*Jameson land and the environment* (Ole Oxholm, editor-in-chief)
	15	1984 feb 22	AG	*Open letter to the landsting* (Jesper Boje Christensen, Greenpeace Denmark)
v3n2	5	1984 apr 27	Sermitsiak	*Political resentment makes debate on jameson land an election issue*
	34	1984 apr 27	Sermitsiak	*A reversed north south dialogue*
v3n3	3	1984 jul 11	AG	*There is no alternative to hurry fiord*
	1	1984 jul 17	AG	*An agreement with arco Greenland was in effect accepted*
	8	1984 sep 28	Sermitsiak	*Scrutinisation of oilfields off west coast*
v3n4	1	1984 oct 10	AG	*Outboard motor or possibly kayak*
	2	1984 oct 10	AG	*Joint committee on resources recommends: search for oil can start*
	8	1984 oct 19	Sermitsiak	*The road to greater independence runs through jameson land*
	10	1984 nov 2	Sermitsiak	*Oil exploration – but the hunters will be protected*
	12	1984 nov 9	Sermitsiak	*23 said "yes" – 2 said "no" to oil exploration*
	14	1984 nov 14	AG	*10,000 square kilometres of land to be explored*
	15	1984 nov 14	AG	*Jameson land: liaison committee will ensure local population's insight into the search for oil*
	16	1984 nov 16	Sermitsiak	*Oil agreements can be signed in December*
	17	1984 dec 14	Sermitsiak	*Jørgen peder Hansen is the chairman of the new Danish-greenlandic oil company*

v4n1	25	1985 jan 3	AG	*Thank you for good and exciting teamwork*”
	2	1985 feb 27	AG	*Fight against oil pollution*

Appendix 5: Interview Guide

Intervjuguide

Grunnleggende spørsmål:

Hvordan gikk det an å komme fra uenighet i 1978 til enighet i 2008?

Personlig

- *Hvordan vil du beskrive din personlige erfaring med spørsmålet om petroleumsutnyttelse i Grønland?*
  [How will you describe your personal experience with the issue of petroleum extraction in Greenland?]

Historiske sammenhenge: hvor startede det? Hva førte til hva? Hvem spillede hvilke roller? Hvem tog initiativ til hva?

- *Hvordan har forholdet mellom en generell naturforståelse og petroleumsutnyttelse forandret seg siden innførselen av Hjemmestyret?*
  [How has the relationship between a general conception of nature and petroleum extraction changed since the introduction of the Home Rule?]

- *Hvorfor var det behov for en ny avtale mellom Grønland og Danmark nå, hvorfor var det nødvendig med selvstyreavtalen?*
  [Why was a new agreement between Greenland and Denmark needed, why was it necessary with the Self Rule agreement?]

Betydningsfulle hendelser, diskusjoner, artikler, bøker med mer. Hva har vært de sentrale inputs i tankegangen? Hvor kommer ideene fra?

- *Hvilke hendelser har vært viktige for utviklingen av råstoffområdet, særlig petroleum, i Grønland?*
- [Which events have been important to the development of mineral raw materials (petroleum) in Greenland between 1979 and today?]

- *På hvilken måte har spørsmålet om rettigheter hatt betydning for forståelsen og diskusjonen av denne utvikling?* [How significant has the issue of rights been to the appreciation and the discussion concerning these events?]
- *Har noen personer, artikler, bøker el.lign. vært viktige og sentrale for utviklingen av råstoffområdet (petroleum) i Grønland?*
- *Er det noe som særlig har skapt debatt omkring arbeide relatert til utnyttelse av petroleum i Grønland?*

Samspillet med

- *Hvilken rolle spiller geologiske analyser av petroleumsressurser*
  [How have geological analysis of petroleum resources affected these events?]
-

Det daglige arbeide: Hvilke utfordringer og problemer er der?

- *Hvilke kortsiktige regionale konsekvenser kunne et funn av store petroleumsreserver i Grønland ha?*
  [What kind of short term regional consequences could the finding of large petroleum reserves in Greenland have?]

Appendix 6: Interview Contract

Forespørsel om deltakelse i forskningsprosjektet

Petroleum i Grønland – Viten og ressurser i et arktisk perspektiv [Petroleum in Greenland – Knowledge and Resources in an Arctic Perspective]

Bergen, 05.02.09

Bakgrunn og hensikt
Dette er et spørsmål til deg om å delta i en forskningsstudie for å belyse utviklingen i spørsmålet om petroleumsutvinning i Grønland fra 1970-tallet til i dag. Studien er et mastergradsprosjekt i Region og regionalisering ved Universitetet i Bergen. Jeg ønsker å fokusere på møtet mellom danske og grønlandske synspunkter. Som kontekst ønskes diskusjonen satt inn i en arktisk, regional sammenheng.

Hensikten med dette er å se om utviklingen av forholdet til petroleumsutvinning på Grønland kan skape innsikt i større regionale, kanskje globale, tendenser og meninger. Og da særlig med forholdet mellom viten og naturressurser som innfallsvinkel.

Kriterier for deltakelse
Det viktigste kriterium er en dyptgående og relativt langvarig erfaring med det feltet jeg skriver om, nemlig spørsmålet om viten og naturressurser, nærmere bestemt petroleum, i Grønland. Og særlig møtet mellom danske og grønlandske synspunkter om dette. Denne erfaringen kan enten være direkte; at du har deltatt i arbeidsprosesser der vedrører spørsmål om petroleum i Grønland - teknisk, administrativt, politisk osv. Eller indirekte; at du på annen vis har beskjeftiget deg med spørsmål om rettigheter, naturressurser og viten i Grønland, Danmark eller Arktis på en måte som jeg vurderer som relevant som kilde.

Hva innebærer studien?
Et strukturert intervju på en halv til en hel times varighet. Intervjuet vil bli tatt opp og transkribert etterfølgende. Jeg vil først ha en rekke fastlagte spørsmål og deretter er det mulighet for en mer fri samtale. Intervjuet vil inngå som kildemateriale i forskningsprosjektet sammen med rapporter, betenkninger, medieutklipp og sekundær litteratur. I alt tenkes å gjøre 5-7 intervjuer.

Tidsskjema – hva skjer og når skjer det?
Høsten 2008 + Våren 2009: Litteratur/dokument studier, bakgrunnsinformasjon og kontekst. Vår/sommer 2009: Intervjuer. Høst 2009: Analyse og skriving. Vår 2010: Oppgaven ferdiggjøres og levers

Bakgrunnsinformasjon om studien
Mitt utgangspunkt er en interesse for hvordan teknologi påvirker oss som mennesker i et samfunn. I dette prosjektet velger jeg å se på petroleum som eksponent for teknologisk utvikling. Etter min mening er Arktis er veldig interessant område i denne sammenheng.

Det skrives mye om både klimaforandring og uutnyttete naturressurser, samtidig som Arktis som territorium fortsatt mangler å defineres helt klart.

Nettopp det at kommersiell petroleumsutvinning ikke har skjedd på Grønland etter 30 års undersøkelser gir en unik mulighet for å lære om hvordan vi som samfunn forholder oss til petroleum som fenomen. Dette ville da kunne danne fundament for overveielser om de samfunnsmessige konsekvensene av et fremtidig petroleumsfunn.

Hva skjer med informasjonen om deg?

Du velger selv om du vil være anonym. I utgangpunktet ønsker jeg å publisere studien uten anonymitet, dvs. med fult navn, men avgjørelse er din. Du vil få mulighet til sjekke studien innen den publiseres og vil kunne rette og slette dine sitater.

Ditt intervju og den informasjonen som registreres om deg skal kun brukes slik som beskrevet i hensikten med studien. Ved anonymitet vil opplysningene og prøvene vil bli behandlet uten navn og fødselsnummer eller andre direkte gjenkjennende opplysninger..

Ved anonymitet er det kun autorisert personell knyttet til prosjektet som har adgang til navnelisten og som kan finne tilbake til deg.
Da utvalget er lite vil fullstendig anonymitet være vanskelig å garantere. Om anonymitet ønskes vil det så langt som mulig bli forsøkt å publisere resultatene så du ikke kan identifiseres. For eksempel vil dine sitater bare bli introdusert med en kort generell beskrivelse av din stilling.

Frivillig deltakelse
Det er frivillig å delta i studien. Du kan når som helst og uten å oppgi noen grunn trekke ditt samtykke til å delta i studien. Dersom du ønsker å delta, undertegner du samtykkeerklæringen på siste side. Om du nå sier ja til å delta, kan du senere trekke tilbake ditt samtykke.

Informasjon om utfallet av studien
Du vil få informasjon om utfallet av studien. Som tidligere skrevet vil du få mulighet til sjekke studien innen den publiseres og vil kunne rette og slette dine sitater. Dessuten vil jeg naturligvis sende deg den ferdige oppgave. For øvrig vil jeg være takknemmelig for alle kommentarer, synspunkter og innspill du måtte komme med.

Samtykke til deltakelse i studien
Om du bekrefter ditt samtykke på e-post eller telefon, kan vi vente med signering til vi treffes.

Jeg er villig til å delta i studien

(Signert av prosjektdeltaker, dato)

Appendix 7: Example of Categories used in Analysis

Categories of interviews:
Environment, nature, identity (dark green)
Homeland: when Environment, nature, identity appear as a part of Greenland's position before and in the first years of Home Rule (problem: HCs are a treat, narrative: Greenlanders are hunters of nature)
Eco.mod.: when Environment, nature, identity appear as part of Danish or mid-80s Home Rule and the need for More knowledge (problem: lack of knowledge and means to control development, narrative: Greenland needs a sound financial base to gain political independence)

Hydrocarbons history (blue) or the history of the discussion of hydrocarbons
Opposition (reverse frontier): the opposition to frontier activities as e.g. APP – related to 'homeland' (problem: outside world is trying to impose its industrial culture, narrative: it is possible to protest, we can do something about it)

Practice of the Joint Council and the Raw Material Administration (purple)
Administration – how JC works (problem: to avoid disagreement, narrative: as ecomod or science

Arctic or regional perspectives (light green)
Contact: when contact is made to other areas, group etc.

Change in orientation or attitude (yellow)
Conflict: is any conflicting postitions mentioned as a problem?

Knowledge – localisation and use (turquoise)
Time: is time an issue a: ' we have to make the decision now' 'it will be ready in 2 years'
Place names: how are place names mentioned in the article?
Estimate: current estimates
Science: the role of science

Summary in Danish

Dette speciale handler om olie og gas − hydrocarboner − i Grønland. Selvom man gennem 40 års indsats ikke har fundet hydrocarbon-felter som har kunnet udnyttes kommercielt, har hydrocarboner været tæt forbundet med ambitioner om grønlandsk selvstændighed. Først i Hjemmestyreordning fra 1978 og senest i Selvstyreordningen fra 2009.

Specialet undersøger hvordan hydrocarbon-spørgsmålet og konstruktionen af det autonome Grønland, Hjemmestyret, ændrede karakter fra 1975-1985. Dette analyseres via to teoretiske perspektiver: *økologisk modernisering* (Hajer 1995) og *ko-produktion* (Jasanoff 2004). Der argumenteres for at forståelsen af grønlandske hydrocarboner og den grønlandske nation skabte hinanden, blev ko-produceret. Dette ses af at diskussionen om rettighederne til den grønlandske undergrund blev erstattet af en diskussion om forurening ved hydrocarbon-aktiviteter. Hvor rettighedsdiskussionen indikerede en klar konflikt, kan spørgsmålet om forurening aldrig helt afklares. Herved blev naturen inddraget i forvaltningen af hydrocarboner. Denne inkludering af økologiske aspekter i et moderne forvaltningsregime forstås som etableringen af en ny diskurs, økologisk modernisering. Specialet inkluderer en historisk analyse af den dansk-grønlandske hjemmestyreproces, inklusiv Hjemmestyreloven og Hjemmestyrebetænkningen og en del andre relaterede dokumenter. Det empiriske materiale inkluderer og artikler fra tidsskriftet Grønland, artikler fra grønlandske og danske aviser og interviewer med nøglepersoner.