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SPECIAL ISSUE

Pervasive Petrocultures



The Trans-Alaska Pipeline System (USA)

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Rémanence des pétrocultures

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SUMMARY**SPECIAL ISSUE****PERVASIVE PETROCULTURES: HISTORIES, IDEAS AND PRACTICES OF FOSSIL FUELS****Pervasive petrocultures: histories, ideas and practices of fossil fuels***Anna Åberg, Kristoffer Ekberg, Susanna Lidström***Petrocultures in the making: Oil in 1920s Scandinavian newspapers***Sissel Furuseth***Creating the conditions for Western European petroculture: The Marshall Plan, the politics of the OEEC, and the transition from coal to oil***Robert Gross, Odinn Melsted, Nicolas Chachereau***The ubiquity of Royal Dutch Shell in the Netherlands as a case of banal petroculture***Geert Buelens***Oceanic irrealism. Danish petrofiction below the surface***Karl Emil Rosenbæk***The endless potentiality: A century and a half of Greek oil aspirations (and what often becomes of them)***Christos Karampatsos, Spyros Tzokas, Giorgos Velegrakis***Pervasive extractivism: Petroculture and sedimented histories in Sandrine Bessora's *Petroleum****Giulia Champion***"Blue-Eyed Arabs" & the Silver Snake: Alaskan petrocultures and the Trans-Alaska pipeline system***Philip A. Wight***REVIEWS****Gasoline Dreams (Simon Orpana, 2021)***Sofia Ahlberg***The Wretched Atom (Jacob Darwin Hamblin, 2021)***Michiel Bron*

SPECIAL ISSUE

**Pervasive petrocultures:
histories, ideas and practices of fossil fuels**

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Pervasive petrocultures: histories, ideas and practices of fossil fuels

Abstract

This special issue focuses on the concept of petroculture and its relationship with energy history and energy humanities. The contributions explore many facets of oil, including far-reaching impacts of petroleum on identities and practices as well as the role of economic, geopolitical and cultural factors in maintaining the use of fossil fuels despite efforts to transition to renewable energy systems. Our aim is to bridge petrocultural studies and energy history, exploring diverse geographical perspectives and historical contexts. We believe that further integration of these fields can help strengthen understanding of how petrocultures resist attempts to decrease the use of oil across modern societies.

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Plan of the article

- Introduction
- State of the art and contribution
- Energy history, ecocriticism and petroculture
- Conclusion: petroculture as a way to see beyond emissions

INTRODUCTION

- 1 A growing awareness of the consequences of our energy system in terms of climate change and other forms of environmental degradation has informed new research fields, aiming to make sense of our current state as well as understand how to mitigate negative effects. One such field of research has been labelled petroculture studies. Petroculture is a cross-disciplinary concept that brings together researchers from environmental and energy humanities working to unpack and make visible how oil pervades modern lives on all levels.

- 2 Our goal in this special issue is to strengthen the relationship between petroculture studies and energy history. Our contributions include case studies that both draw from the past in some way and point to the embeddedness of energy in cultural and narrative contexts, thus connecting history with ecocritical research. We find it especially important to look at how petrocultures have permeated the past century in light of the under-representation of oil in contemporary climate politics; even though carbon emissions from fossil fuels have caused the climate crisis, oil is rarely mentioned explicitly in climate change adaptation and mitigation strategies. How can we understand this contradiction? And how can the notion of petroculture aid us in this endeavour?

- 3 The inaugural issue of JEHRHE identified several key shifts in the development of energy history as a field. The first one was the shift from studying the history of individual energy sectors to examining the wider systems that energy is a component of. Second, there was a change of focus from systems and sectors in their mature state and function to analysing transitions. Third, energy historians have shown an increasing interest in energy use and consumption, in addition to extraction and production. Petroculture is a concept and research field that connects to all of these movements in different ways, making it a fruitful concept for energy historians to engage with.

4 With regard to the first movement, while petroculture research is concerned with specific sectors and has often been studied through the central (extractive) sites of these sectors (or at least the research field as such emerged around these sites), the concept invites us to identify something beyond this, a more pervasive system, or culture.¹ By focusing on such cultures rather than more narrowly defined structures, petroculture research moves beyond merely identifying the components and material conditions that make petroleum use possible. The concept draws our attention to the meanings and symbols that uphold this culture, beyond the political economy of sites of resource extraction. Connecting petroleum use to cultural practices places emphasis on longevity and ties into identities and practices that are shaped by petroleum in distinct ways, as we can see from the contributions to this special issue.

5 As regards the second point, petrocultures research is linked with the growing interest in (energy) transitions of recent years. The climate crisis has made evident the need to shift away from the burning of fossil fuels and triggered an immense interest in past energy transitions.² However, so far petroculture studies have focused more on processes that have solidified energy systems and thus hindered the transition away from fossil fuel use, showing less interest in examining processes by which specific fossil resources have been abandoned. For example, works like Matthew Huber's *Lifeblood* and Stephanie LeMenager's *Living Oil* retrace the omnipresence of oil in cultural imaginations and practices in North America, reflecting the profound importance of oil for the rise of the US geopolitical dominance and national myths.

¹ The Petrocultures Research Group at the University of Alberta is the prime example. See Sheena Wilson, Adam Carlson, Imre Szeman, *Petrocultures: Oil, Politics, Culture* (Montreal: McGill-Queen's Press-MQUP, 2017).

² Arthur Rempel, Joyeeta Gupta, "Equitable, Effective, and Feasible Approaches for a Prospective Fossil Fuel Transition", *WIREs Climate Change*, vol. 13, n° 2, 2022; Richard York, Shannon Elizabeth Bell, "Energy Transitions or Additions? Why a Transition from Fossil Fuels Requires More Than the Growth of Renewable Energy", *Energy Research & Social Science*, vol. 51, 2019, 40-43.

Less research has been directed towards places and periods where oil is ‘new’, or where the dependence on oil is questioned on various grounds.

6 The perseverance and pervasiveness of oil is also a theme that runs through many of the articles in this issue, making clear that these obstacles in the transition to renewable energy sources have been created as well as maintained over time, and can depend on economic, geopolitical and cultural factors. This is an important but often neglected theme in climate politics. In fact, although fossil fuels are at the heart of the climate problem, some energy issues have historically been absent in climate negotiations.³ By separating the rhetoric around carbon emissions from clear statements about the fossil fuel that causes most of them, the perceived link between climate change and the role of oil in everyday life has been obscured. Our goal is to use the concept of petroculture to engage with historically situated and on-the-ground practices that have been responsible for the inertia of fossil fuel systems, both in the past and today. We suggest that this approach can help us understand current energy problems and the huge transformations we face as a global community.⁴

7 Considering the third point, from the perspective of the consumer, the use of specific energy sources is far from a free choice and therefore the transition away from one energy source towards another cannot be thought of as the responsibility of the individual. However, we argue

that it is nevertheless important to acknowledge both the practical conveniences and the cultural meanings that petroleum products have provided throughout the world. Without this recognition, it is nearly impossible to understand the obstacles to the current energy transition and the success with which fossil fuel companies have been able to capitalise on cultural narratives and material conditions.

STATE OF THE ART AND CONTRIBUTION

8 Despite its centrality in shaping contemporary societies, oil is surprisingly absent from historical research, with some exceptions for specific studies of energy history.⁵ Instead, humanities research on oil and oil history have primarily taken place within other disciplines, including the relatively new interdisciplinary fields of environmental and energy humanities.⁶

9 Petroculture was established as a research field in North America in the 2010s, through books such as *Living Oil* (2014) and *Petrocultures* (2017).⁷ While these studies named the field as a new research area, its roots go further back. The first study of so-called petrofiction was published in 1992, in the form of a book review by Amitav Gosh, titled *Petrofiction: the oil encounter and the novel*.⁸

10 Aiming to unpack the relationship between oil, politics and culture, petroculture research has not been primarily historic. To a degree, studies of petroculture have even been conducted in opposition to a certain form of history writing, exemplified by Daniel Yergin’s US- and

³ Stefan C. Aykut, Monica Castro, “The End of Fossil Fuels? Understanding the Partial Climatisation of Global Energy Debates”, in Stefan C. Aykut, Jean Foyer and Edouard Morena (eds.), *Globalizing the Climate: COP21 and the Climatisation of Global Debates* (London: Routledge, 2017), 173-193.

⁴ For a different approach to reaffirming the connection between oil and climate change see for example: Peter C. Frumhoff, Richard Heede, Naomi Oreskes, “The Climate Responsibilities of Industrial Carbon Producers”, *Climatic Change*, vol. 132, n° 2, 2015, 157-71; Marco Grasso, “Oily politics: A critical assessment of the oil and gas industry’s contribution to climate change”, *Energy Research & Social Science*, vol. 50, 2019, 106-15.

⁵ The overview and argument in this section is previously outlined in Jens Millkrantz, Anna Åberg, Kristoffer Ekberg, Susanna Lidström, “Petrokultur och energihistoria”, *Scandia*, vol. 88, n°1, 2022 (in Swedish).

⁶ Katie Ritson, “Review Essay. Energy in Crisis: New Perspectives on Petrocultures”, *Ecozon@: European Journal of Literature, Culture and Environment*, vol. 14, no 1, 2023.

⁷ Stephanie LeMenager, *Living Oil: Petroleum Culture in the American Century* (New York: Oxford University Press, 2014); Sheena Wilson et al., *Petrocultures: Oil, Politics, Culture* (cf. note 1).

⁸ Amitav Gosh, “Petrofiction: the oil encounter and the novel”, *The New Republic*, 1992, 29-34.

production hyphen centred global oil history from 1990.⁹ Petroculture research has taken a different approach to cultures surrounding the use of fossil fuels, focusing more on everyday and individual habits than on grand national narratives spun around a few select individuals. However, despite this focus on use, petroculture research has still to a significant degree focused on countries or regions where oil is extracted.

11 In its opposition to empirical political and economic history writing such as Yergin's, we suggest that the petroculture research field has lost, or never acquired, a firm footing in historical research. Through temporal concepts such as permanence and pervasiveness and by exposing the longevity and emergence of specific oil cultures, we aim to show that petroculture research can benefit from a deeper engagement with historical analyses. Such approaches, we believe, can usefully complement other more prevalent perspectives in contemporary studies of the practices and cultures surrounding the use of fossil fuels. In this way, the special issue aims to further connections between studies of petroculture and energy history research in multiple ways, focusing on intertwining historical and ecocritical perspectives. Specifically, what the contributions to the special issue together intend to accomplish in relation to petroculture research is twofold:

12 First, petroculture research has focused on supposed centres of petroleum, in other words the places or regions of extraction. This special issue interrogates what happens when petroculture is seen as something that appears in all parts of the lifespan of oil, including prospecting, transporting, storing, burning and consuming. In these articles, petroculture is diversified geographically and exists both as world-system and in local practices and imaginations.

13 Second, petroculture research today primarily engages with contemporary society. The special issue views petroculture as changing over time,

and as historically situated and specified. In this way, not only oil extraction and exportation are historically grounded, but also the ensuing cultural behaviours, narratives and expectations. By historicising oil cultures in this way, we aim to shed light on some of the difficulties, often unacknowledged or down-played, associated with moving away from the use of oil and transition to other forms of energy that are associated with different social and cultural behaviours and expectations.

ENERGY HISTORY, ECOCRITICISM AND PETROCULTURE

The basic assumption within petroculture research is that oil is not only an energy source: oil is part of our lives in a fundamental way, permeating our cultures, economies, politics and material lives. In order to make this manifest it is crucial to acknowledge that oil is not a mere thing or object but, as Huber argues, a "socioecological relation" encompassing both material and social aspects.¹⁰ Meanwhile, ecocritical theory has pointed to the way oil has been obscured in social ideology as well as cultural expressions, despite the fact that in most societies, ideas and visions of a good life presuppose the burning of fossil fuels in some form.¹¹

Petroculture is therefore not merely a description of the properties of a given society, but also a theoretical and methodological perspective that aims to unveil the embeddedness of oil in everyday life.¹² The contributions to this special issue use different concepts and methods to make oil visible in this sense. In "The ubiquity

¹⁰ Matthew T. Huber, *Lifeblood: Oil, Freedom, and the Forces of Capital* (Minnesota: University of Minnesota Press, 2013), 4.

¹¹ See, i.e. Patricia Yaeger, "Editor's column. Literature in the Ages of Wood, Tallow, Coal, Whale Oil, Gasoline, Atomic Power, and Other Energy Sources", *PMLA/Publications of the Modern Language Association of America*, vol. 126, n° 2, 2011.

¹² Christopher F. Jones, "Petromyopia: Oil and the Energy Humanities", *Humanities*, vol. 5, n° 2, 2019, 36; Cara Dagget, *The Birth of Energy: Fossil Fuels, Thermodynamics, and the Politics of Work* (Durham: Duke University Press, 2019); Huber, Matt, "Teaching Energy Geography? It's Complicated", *Journal of Geography in Higher Education*, vol. 40, n° 1, 2016.

⁹ Daniel Yergin, *The Prize : The Epic Quest for Oil, Money, and Power* (New York: Simon & Schuster, 1991).

of Royal Dutch Shell in Netherlands as a case of banal petroculture,” Geert Buelens adapts Michael Billig’s concept of “banal nationalism” to highlight a form of “banal petroculture” he sees as underlying and permeating Dutch politics and culture for a century or more. A prominent part of Dutch society since 1890, Buelens shows how Shell has managed to weave a narrative around itself that has informed a view of the multinational company as a force of good, despite multiple scandals indicating the opposite, allowing it to “hide in plain sight” and escape scrutiny as well as criticism, until only recently. Buelens’s combined narrative and historical analysis shows the interplay between nationalist pride, accustomisation and elitism in extending and maintaining a corporate petroculture, which becomes nationally embedded, but at the same time invisible.

16 In other contexts, oil connects to grand national narratives in a more explicit way. Christos Karampatsos, Spyros Tzokas and Giorgos Velegarakis show the complexity of national oil narratives in their study of the Greek hydrocarbon discourse and its development over the past 150 years. While Greek hydrocarbon exploration has mostly failed over this time, a strong discourse of possibility, including descriptions of hydrocarbons as “subterranean treasures” and “deposits of hope” has surfaced periodically, largely in relation to national and international turbulence in terms of war and crisis. Karampatsos *et al.* demonstrate how this discourse is driven by a mixture of popularised petroleum geology and tacit geopolitical calculation, forming a particular Greek petrocultural expression. By looking at the historical contexts and developments of such naturalised national narratives of oil, we gain a deeper understanding of how the connections between oil and nation go beyond a “whig history” of oil.

17 Through their discourse analysis, Karampatsos *et al.* also argue that Greek hydrocarbons “displayed their ability to produce material effects despite their physical absence”. The role of geology is central in this process; petroleum geologists use their expertise to publicly formulate

the potentiality of oil, while simultaneously and tacitly connecting their practice to wider state imperatives as well as historical context. The authors thus highlight an important but understudied subject within petroculture studies: science. Although the presence and creations of knowledge and infrastructures are central to the pervasiveness of oil in our societies, which is also highlighted by petroculture studies, the role of science and scientists in creating social spaces for oil is understudied, thus making the science of oil a black box. Opening this black box can further deepen our understanding of the societal pervasiveness of oil in the form of, for example, printing chemistry, as pointed out by Furuseth, or in the field of economic theory, as touched upon by Groß *et al.*¹³

Another way of uncovering this normal state of oil is through genealogical methods where the “contingent processes that have brought [petroculture] into being” are analysed from a historical perspective.¹⁴ This approach is taken by Giulia Champion in “Pervasive extractivism: petroculture and sedimented histories in Sandrine Bessora’s *Petroleum*”. Champion reads Bessora’s novel “as a re-telling of Gabonese history” centred on extractivism and colonialism, demonstrating a genealogy that connects contemporary petroculture in Gabon to an extractive history that includes slavery, logging and mining. Placing petroleum extraction at the centre of a combined historical and ecocritical analysis, Champion uses Bessora’s novel to identify how “world-systemic history connects colonial pasts with extractive presents” - Gabonese petroculture is seen as inextricably bound up with colonial and imperial practices in ways that have “erased the country’s past”. Drawing on the novel’s mythical associations, Champion suggests that Bessora provides a historiographical alternative that allows a view of how Gabon’s future could be shaped differently.

¹³ See also current research by Christopher F. Jones.

¹⁴ Mitchell Dean, *Critical and Effective Histories: Foucault’s Methods and Historical Sociology* (London: Routledge, 1994).

- 19 A central strategy for visibilising the pervasiveness of oil is to use myth and literary genre to tap into emotional and cultural meanings of oil. In Bessora's novel, the merging between the Medea figure and the West African Mami Wata character becomes a way to explore the sometimes obscure character of oil, as well as to show new ways forward. Karl-Emil Rosenbaek shows similar strategies used in contemporary Danish literature. However, in a Danish context, where extraction happens offshore and the possible apocalyptic consequences of oil use still looms as a spectre rather than a harsh reality, the Gothic instead becomes a lens through which we are able to see and understand oil as horror. As Rosenbaek points out, by using myth and gothic fiction to make the often obscured maritime petroleumscape visible, the two novels he studies show that "the world-ecological reality of oil... is opaque and ominous - yet strangely alluring", and thus paradoxically succeed in creating a more realistic description than realism would allow.
- 20 Another way to engage with the veiled and embedded character of oil is to combine historical research into the materialities of oil with narrative studies in order to unpack the semiotic side of oil, and the sway it holds over many societies. By moving beyond the actors and elites most deeply and visibly engaged in petro-industry, focus can instead shift to the everydayness of oil and how oil in contemporary society has become "equated with life itself".¹⁵ In Sissel Furuseth's analysis of the reception of Upton Sinclair's novel *Oil!* in Scandinavia in the 1920s, the petro-materialities that occupy the centre of Sinclair's novel are analysed through a narrative filter provided by contemporary book reviews and associated newspaper articles. Through this approach, Furuseth is able to show not only how the perception of oil and its materialities were interpreted across national, political and cultural borders, but also how petroculture and news media are historically interrelated as cultural practices - or, to put it differently, how news media is an important part and form of petroculture history.
- Although flowing and therefore elusive, oil is not only distant or hidden in everyday life; in some instances, our dependence on oil is highly visible and recast as sublime objects of modern life. In his study of the Trans-Alaska Pipeline System (TAPS), Philip Wright shows how this massive structure not only "transformed the young polity of Alaska into a petrostate", but also provided a site of contestation as environmental issues rose to the fore during the second half of the twentieth century. As Wright shows, the meaning and importance of TAPS have changed over time in relation to the stages of maturity of the project and the way associated revenues have transformed Alaskan society. By the early 21st C., the dependence on oil seems almost impossible to escape for this region, despite the growing alarm of climate change. Wright importantly points out that while the capture of Alaska by oil interests is and was significant, it was not hegemonic in the sense that it removed all opposition, which urges us as researchers not to become trapped in generalising conceptualisations of petrocultures. Nonetheless, similar processes of "petrofication" both in economical but also cultural terms are crucial for understanding the pervasiveness of oil.
- As argued in the beginning of this text, petroculture relates to key questions within energy history, for example the role of oil in energy transitions. This role is perhaps most visible in the contribution by Robert Groß, Odinn Melsted and Nicolas Chachereau which analyses how a European petroculture was created, or at least reinforced, through the European Refinery Expansion Program, and how the Marshall plan following WWII aided in the transition to oil. Their article expands the knowledge on how geopolitical concerns and specific infrastructures have made the world dependent on oil infrastructure, but in contrast to more sweeping arguments of oil (and US) dominance it shows the contingent and partial process, structured along power-relations, whereby oil was introduced. They further direct our attention not only to the infrastructures of refineries but also to how consumer demand and specific oil-dependent technologies, such as the internal combustion engine, further expanded the role of the already favoured

¹⁵ Huber, *Lifeblood*, xii (cf. note 9).

oil industry, particularly in relation to coal. This system-wide transformation shows how encompassing the current transition, this time away from oil, will actually be.

23 As Furuseth notes in her article, there has been a tendency within petroculture research to focus on the ‘ills’ of petroleum and to identify the villains of the climate and fossil fuel story, often in the form of the global oil industrial complex. This results partly from the fact that petroculture research emerged during - and in response to - the intensified discussion of climate politics as well as the boom of oil extraction in North America in the wake of the 2008 economic crisis. In addition, oil has been used as a geopolitical and imperial tool, and as such has been part of the development of unequal power structures over time. As pointed out in an earlier special issue in JEHRHE, the relations between the oil industry and global governance need to be unpacked.¹⁶ The same is true for the “role of energy systems in the colonial and post-colonial world and conversely, the way in which colonialism and imperialism (formal or informal) have impacted on the structures of the energy industry”.¹⁷ Several of the contributions to this issue contribute to this endeavour.

24 However, while negative political and environmental consequences of oil continue to be an important rationale for the study of petrocultures and fossil fuels, it is also important to note that its pervasiveness does not only stem from the intentional accumulation strategies of private as well as state-owned companies. To understand the pervasiveness of oil, we need

¹⁶ Marta Musso, Guillemette Crouzet, “Energy Imperialism? Introduction to the Special Issue”, *Journal of Energy History/Revue d’Histoire de l’Énergie*, n°3, 2020. Url : energyhistory.eu/en/node/205. Such efforts are beginning to emerge not least in relation to environmental governance (accessed 08/06/2023). See for example: Ann-Kristin Bergquist, Thomas David, “Beyond Planetary Limits! The International Chamber of Commerce, the United Nations, and the Invention of Sustainable Development”, *Business History Review*, 2023, 1–31; Ben Huf, Glenda Sluga, Sabine Selchow, “Business and the Planetary History of International Environmental Governance in the 1970s”, *Contemporary European History*, vol. 31, n°4, 2022, 553–569.

¹⁷ Musso and Crouzet, “Energy Imperialism?” (cf. note 15).

to understand the way that oil has become part and parcel of our lives and activities, offering comfort, efficiency, political argumentation and economic development. Several of the contributions to this special issue show both support for and opposition against oil use from all parts of the political spectrum and under different economic regimes. Further, the ways in which actors argue for and against oil in for example Alaska, the Netherlands, Norway, Greece, and the US (with material consequences in the Marshall plan) paint a picture of how oil has been seen as a tool to do good by many actors on different political levels. In this sense, oil has similar qualities to other sources of high energy concentration, as it can provide a feeling and sensation of endless possibility - a possibility that in turn is reliant on historical examples. The articles in this issue provide a range of such examples, including Furuseth’s analysis of newspapers as not only a source material for semiotic analysis of a historical petroculture, but at the same time “themselves artifacts of high-energy culture” that allowed for a new scale and frequency of information dissemination. In Wright’s contribution, oil changes shape from hero to villain over time and in the eyes of different actors across the political spectrum.

As these examples foreground, if we look at petrocultures only through the lens of contemporary society rather than from the view of historical circumstances, we will miss out on a more complex analysis of the allure of oil. Thus, rather than seeing oil solely as a geopolitical tool in the hands of the current hegemon (the US for most parts of the last century), it is therefore important to acknowledge the agency and voices of actors in their local regions and places. This agency is furthermore not only visible in political power but in the ways oil is and gets embedded with specific meaning.

CONCLUSION: PETROCULTURE AS A WAY TO SEE BEYOND EMISSIONS

As Aykut and Castro argue, recognition of how and why fossil fuels inform contemporary societies were for a long time absent in negotiations of

climate change mitigation and adaptation - the need to phase out the use of oil and coal were mentioned for the first time at COP26, taking place in Glasgow in 2021.¹⁸ The climate policy discourse has made oil invisible, and thereby delimited its function and relevance to emissions and providing a rationale for keeping the possibility open for a continued use of fossil fuels. This omission in the discourse of climate change further enables the fantasy that fossil fuels and their emissions are distinct and clearly separable entities, which underlies concepts such as “net-zero”, “climate compensation” and technologies like “direct air capture” (DAC) and “carbon capture and sequestration” (CCS).¹⁹

- 27 Taken out of historical and cultural context, carbon emissions represent a superficial view of oil use. Lowering emissions are thus a similarly superficial, and inefficient, way of approaching the undoing of pervasive but diversified

petrocultures, each with historically and culturally situated roots and reasons for persevering. By revealing oil in all its facets - as scientific, horrific, alluring, gendered, colonial, multinational, embedded in landscape, material, political, and so on - petroculture studies help to make apparent reasons for the lack of progress in attempts to transition away from oil. Recognising how oil has been made invisible in multiple places and times, and for different reasons, makes it possible to understand why oil has become in some ways, paradoxically, invisible in contemporary climate politics.

Thus, bringing together energy history and pet- 28 roculture studies contributes to ongoing discussions on climate and energy by placing fossil fuels in their historical and cultural context, revealing the meanings and practices that make the current energy system so pervasive (and at times appealing).

¹⁸ Aykut, Castro, “The End of Fossil Fuels?” (cf. note 3); Harro van Asselt Harro, “Breaking a Taboo: Fossil Fuels at COP26”, *EJIL:Talk*, 26/11/ 2021. Url: <https://www.ejiltalk.org/breaking-a-taboo-fossil-fuels-at-cop26/>.

¹⁹ Wim Carton, “Carbon Unicorns and Fossil Futures. Whose Emission Reduction Pathways Is the Ipcc Performing?”, in J. P. Sapinski, Holly Jean Buck and Andreas Malm (eds.), *Has It Come to This? The Promises and Perils of Geoengineering on the Brink* (New Brunswick, Camden: Rutgers University Press, 2020).

Bibliography

Aykut Stefan C., Castro Monica

“The End of Fossil Fuels? Understanding the Partial Climatisation of Global Energy Debates”, in Stefan C. Aykut, Jean Foyer and Edouard Morena (eds.), *Globalizing the Climate: COP21 and the Climatisation of Global Debates*, (London: Routledge, 2017), 173-193.

Bergquist Ann-Kristin, David Thomas

“Beyond Planetary Limits! The International Chamber of Commerce, the United Nations, and the Invention of Sustainable Development”, *Business History Review*, 2023 (first view), 1-31.

Carton Wim

“Carbon Unicorns and Fossil Futures. Whose Emission Reduction Pathways Is the IPCC Performing?”, in J. P. Sapinski, Holly Jean Buck and Andreas Malm (eds.), *Has It Come to This? The Promises and Perils of Geoengineering on the Brink* (New Brunswick, Camden: Rutgers University Press, 2020), 34-49.

Dagget Cara N.

The Birth of Energy: Fossil Fuels, Thermodynamics, and the Politics of Work (Durham: Duke University Press, 2019).

Dean Mitchell

Critical and Effective Histories: Foucault's Methods and Historical Sociology (London: Routledge, 1994).

Gosh Amitav

“Petrofiction: the oil encounter and the novel”, *The New Republic*, 1992, 29-34.

Huber Matt

“Teaching Energy Geography? It's Complicated”, *Journal of Geography in Higher Education*, vol. 40, n° 1, 2016, 77-83.

Huber Matthew T.

Lifeblood: Oil, Freedom, and the Forces of Capital (Minnesota: University of Minnesota Press, 2013).

Huf Ben, Sluga Glenda, Selchow Sabine

“Business and the Planetary History of International Environmental Governance in the 1970s”, *Contemporary European History*, vol. 31, n° 4, 2022, 553-69.

Jones Christopher F.

“Petromyopia: Oil and the Energy Humanities”, *Humanities*, vol. 5, n° 2, 2019.

LeMenager Stephanie

Living Oil: Petroleum Culture in the American Century (New York: Oxford University Press, 2014).

Millkrantz Jens, Åberg Anna, Ekberg Kristoffer, Lidström Susanna

“Petrokultur och energihistoria”, *Scandia*, vol. 88, n° 1, 2022, 127-140.

Musso Marta, Crouzet Guillemette

“Energy imperialism? Introduction to the special issue”, *Journal of Energy History/Revue d'Histoire de l'Énergie*, n°3, 03/06/ 2020. Url: energyhistory.eu/en/node/205 (accessed 08/06/2023)

Rempel Arthur, Gupta Joyeeta

“Equitable, Effective, and Feasible Approaches for a Prospective Fossil Fuel Transition”, *WIREs Climate Change*, vol. 13, n° 2, 2022.

Ritson Katie

“Review Essay. Energy in Crisis: New Perspectives on Petrocultures”, *Ecozon@: European Journal of Literature, Culture and Environment*, vol. 14, n° 1, 2023, 203-09.

van Asselt Harro

“Breaking a Taboo: Fossil Fuels at COP26”, *EJIL: Talk*, 26/11/2021 Url: <https://www.ejiltalk.org/breaking-a-taboo-fossil-fuels-at-cop26/>.

Wilson Sheena, Szeman Imre, Carlson Adam (eds.)

Petrocultures: Oil, Politics, and Culture (Montreal: McGill-Queen's University Press, 2017).

Yaeger Patricia

“Editor's Column: Literature in the Ages of Wood, Tallow, Coal, Whale Oil, Gasoline, Atomic Power, and Other Energy Sources”, *PMLA*, vol. 126, n° 2, 2011, 305-326.

Yergin Daniel

The Prize: The Epic Quest for Oil, Money, and Power (New York: Simon & Schuster, 1990).

York Richard, Bell Shannon Elizabeth

“Energy Transitions or Additions? Why a Transition from Fossil Fuels Requires More Than the Growth of Renewable Energy”, *Energy Research & Social Science*, vol. 51, 2019, 40-43.

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Petrocultures in the making: Oil in 1920s Scandinavian newspapers

Abstract

Based on the assumption that the periodical press was crucial for synchronising the world and preparing for global energy transition in the early 20th C., the article proposes a historiography of oil that acknowledges newspapers' excess capacity as research material and takes advantage of analytical approaches developed within print culture studies. Empirically, the article provides new knowledge on how US petroculture was negotiated in Scandinavia in the interwar era, using the press-mediated critical reception of Upton Sinclair's novel *Oil!* in Sweden and Norway as a steppingstone. Increasingly accessible newspaper archives show that petroleum dominated 1920s print culture to such an extent that basic assumptions in contemporary petroculture studies regarding oil's invisibility must be reconsidered.

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Plan of the article

- Introduction
- Into the archives
- Print culture and petromedia
- Oil in the newspapers
- From the Scandinavian critical reception of *Oil!*
- Oil as world literature
- Reappropriating the past
- Conclusion

INTRODUCTION

- 1 In the essay “How to Know about Oil” Imre Szeman demonstrates the benefits of studying oil along different paths – historically, aesthetically, and politically – to advance critical thinking on energy transition. By juxtaposing academic texts, art-exhibits and political debates Szeman encourages humanities scholars to explore various representations of oil in multiple cultural contexts so that we can fully understand what a modern society might become without oil.¹ In a similar vein Stephanie LeMenager analyses petroleum across different genres and media, tracking the energy source and its infrastructures as they are depicted and materialised in novels, films, museums, marketing campaigns, and landscape architecture. While Szeman’s epistemic approach to oil is of great importance for petroculture studies as it allows for triangulation of perspectives and scholarly conversations across disciplines, LeMenager’s method in *Living Oil* is particularly productive due to the “thickness” she adds to the picture. Weaving together diachrony and synchrony, narrative and aesthetics, LeMenager lets oil media come to life in several dimensions. One example of such a multi-layered portrait is her critical reflections on Upton Sinclair’s *Oil!* (1927) analysed along with urban planning reports and pro-oil propaganda booklets from the 1920s as well as Paul Thomas Anderson’s film adaptation *There Will Be Blood* from 2007. LeMenager describes her narrative-critical method as a variant of “commodity regionalism”, arguing that “regions are vital intellectual frameworks for thinking about energy”.² In the case of *Oil!* the regional context is California, first and foremost.
- 2 The regional approach to oil and petromedia has inspired my own research on Norwegian

contemporary petroculture as well.³ However, the relationship between region, nation, and world is a complex one when it comes to energy regimes. As I suspect Upton Sinclair’s novel to reflect that complexity in ways not yet exhausted in research, especially not regarding how *Oil!* resonated internationally in the late 1920s, I want to explore that path further, looking for ways of knowing oil that can handle multiple spatial and temporal scales. In terms of setting, Sinclair’s novel is both regional and transnational, given that the story depicts the political awakening of the young protagonist Bunny Ross whose father is a mighty oil tycoon in Southern California in the years before, under, and after World War I. The closing plot is partly set in Europe in the early 1920s while oil itself is portrayed as “intimately American”, indeed the “quintessence of Americanness”, as Peter Hitchcock puts it.⁴ Frederick Buell relates the novel’s energetic style and exuberant portrayal of oil drilling to modernity and the era of “American exceptionalism”.⁵ Over the last couple of decades *Oil!* has been revisited on several occasions to illustrate how the previous century – often labelled as the American century – came to be associated with petromodernity. Sinclair’s novel has also been analysed in tandem with Saudi Arabian Abdelrahman Munif’s petro-quintet *Cities of Salt* (1984–1989) as an early example of petrofiction.⁶ The genre concept “petrofiction” was coined in 1992 by Indian writer Amitav Ghosh in a book essay on Munif’s work.⁷

³ Sissel Furuset, “Bilen som økokritisk utfordring: Carl Frode Tiller og Henrik Nor-Hansen diagnostiserer norsk petroleumskultur”, *Edda*, vol. 108, n° 2, 2021, 128–141; Sissel Furuset et al., “Climate Change in Literature, Television and Film from Norway”, *Ecozon@*, vol. 11, n° 2, 2020, 8–16.

⁴ Peter Hitchcock, “Oil in an American Imaginary”, *New Formations*, n° 69, 2010, 89.

⁵ Frederick Buell, “A Short History of Oil Cultures: Or, the Marriage of Catastrophe and Exuberance”, *Journal of American Studies*, vol. 46, n° 2, 2012, 286.

⁶ Hitchcock, “Oil in an American Imaginary”, 89–91 (cf. note 4); Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Harvard University Press, 2011), 87; Graeme Macdonald, “Oil and World Literature”, *American Book Review*, vol. 33, n° 3, 2012, 7.

⁷ Amitav Ghosh, “Petrofiction”, *New Republic*, 2 March 1992, 29–34.

¹ Imre Szeman, “How to Know about Oil: Energy Epistemologies and Political Futures”, *Journal of Canadian Studies/Revue d’études canadiennes*, vol. 47, n° 3, 2013, 163.

² Stephanie LeMenager, *Living Oil: Petroleum Culture in the American Century* (New York: Oxford University Press, 2014), 10.

3 The Scandinavian reception of *Oil!* has not yet been explored, but in the heyday of international socialism Upton Sinclair was a global phenomenon and translations of *Oil!* were published in Scandinavia shortly after – and even parallel to – the American original: *Olja* in Stockholm 1926, *Olie* in Copenhagen 1928, and *Oljen* in Oslo 1928–1929, translated by Eugen Albán, Elise Koppel, and Gunnar Larsen, respectively. This transatlantic transfer of petrofiction has so far been overlooked in petroculture studies as well as in studies of the history of the book and its reception, although *Oil!* is briefly mentioned by Carl L. Anderson in his general study of the reception of American books in Sweden.⁸ I will not provide an analysis of the translations as such but rather a “thick reception study”, which means that book reviews of *Oil!* serve as an entry to explore more general attitudes to oil in 1920s Scandinavia. For reasons of space, I will be focusing on the critical reception of *Oil!* in Sweden and Norway in the years 1926–1929. At that time, Sweden was about to develop a proud car industry, whereas Norway’s economy was largely based on fisheries and shipping. Both countries had long traditions of forestry, and the wood-processing and pulp and paper industries were growing in the two nations, which were until 1905 joined under a common monarch and foreign policy. Due to the spirit of international brotherhood in the 1920s socialist press it is hard to draw a distinct line between Swedish and Norwegian newspapers and print cultures, even from the point of view of the young patriotic nation state Norway. At the beginning of the 20th C., rich access to hydropower speeded up industry developments in both Sweden and Norway. Whaling and oil from sperm whale had been a lucrative business for the westerly seafaring nation for some time, but it was not until the 1970s that Norway got its own extractive petroleum industry in the North Sea. Facing east, the Swedish entrepreneurs Robert and Ludvig Nobel had invested in oil wells in Baku as early as the 1870s – a business the Nobel family withdrew from after the Russian revolution and the subsequent nationalisation

of oil industry.⁹ It is with this context in mind I find it worthwhile inquiring into how Sinclair’s *Oil!* resonated in Swedish and Norwegian readers a century ago and how petroleum – and energy in general – surfaced in the newspapers.

This article adds new knowledge to the cultural historiography of oil, following three interrelated lines of reasoning: firstly, on a theoretical level it offers meta-reflections on the sources and methodologies used in petroculture studies, arguing that newspapers have excess capacity as research material. My major argument is that the interwar era’s print culture and petroculture should be analysed as two sides of the same story. Since newspapers are themselves artefacts of high-energy culture, being composed of paper and ink, printed in large circulations, and often transported over long distances, they cannot be approached as mere containers of information. Material, form, and content inform each other. Secondly, on the empirical level the article provides new knowledge about the critical reception of *Oil!* in Scandinavia, including the energy discourses surrounding the press mediated book reviews of the late 1920s. The synchronic cross-section of a particular historical moment makes it possible to give a deeper understanding of oil’s everyday presence in a region that at this point in history played a relatively modest role in the global energy war. Finally, based on the theoretical and empirical lines of my argument, the article contests a common claim among petroculture scholars: that oil is culturally invisible. Imre Szeman has argued that we are only at the beginning of knowing the real social impact of oil and that until recently oil has “never been named, and its conceptual, as well as social and historical, significance never explained”.¹⁰ However, as I will show in this article there was a widespread feeling in the 1920s that oil was everywhere and that the omnipresence of oil implicated a new cultural order.

4

⁸ Carl L. Anderson, *The Swedish Acceptance of American Literature* (Stockholm: Almqvist & Wiksell, 1957), 67.

⁹ Cf. *The Branobel History Website*, CBHS. Url: <https://www.branobelhistory.com/> (accessed 11/03/2023); Brita Åsbrink, *Ludvig Nobel: “Petroleum har en lysande framtid!»: En historia om eldfängd olja och revolution i Baku* (Stockholm: Wahlström & Widstrand, 2001).

¹⁰ Szeman, “How to Know about Oil”, 162 (cf. note 1).

INTO THE ARCHIVES

- 5 The assumption that oil has been almost culturally invisible has been the starting point for many publications in contemporary petroculture studies. Oil is something most people “take for granted”, Alan Stoekl writes in the foreword to *Oil Culture*.¹¹ At the same time he suggests that the most effective way to grant oil the visibility it deserves without simply “turning the current situation on its head and seeing oil as the be-all and end-all of culture in general” is to write oil’s history.¹² My article is a contribution to such a history. For this purpose, I have found digitised newspaper archives particularly useful. A quick search for “Upton Sinclair” in the Chronicling America database, narrowed down to 1927, retrieves among other things a newspaper column on the global fuel situation written by H. G. Wells: “Evidently people want ideas about oil”, the British science fiction writer notes.¹³ Wells has observed that many people on both sides of the Atlantic are engrossed by Upton Sinclair’s *Oil!*, taking it as a sign of how coal and oil have become more than incidental commodities: “We may now be on the road to very profound changes in our dealings with oil and coal”, he continues. In 1927 Wells envisions a situation of commodity scarcity, and for Great Britain’s part he predicts retrocession from world leadership unless his country subsidises and nationalises its coal supply. War had accelerated energy transition. In that situation *Oil!* was a symptom, a sign of the era, according to Wells. He believes that people read the novel to make sense of the insistent global commodity.
- 6 I embarked on this project curious about to what extent non-anglophone readers were engrossed by *Oil!* Was the novel known to Scandinavian readers and critics in the 1920s? This question was quickly answered and confirmed by archive

searches at the national libraries of Sweden and Norway. What was initially meant to be targeted search for a closed set of book reviews soon became the base and the focal point for a broader search strategy. Mapping the use of *olja** (“oil” and its inflections) and *petroleum** in Swedish and Norwegian newspaper archives I have become attentive to the strong presence and visibility of oil in 1920s media. Although I am aware of that the digitised newspaper archives at the national libraries of Sweden and Norway are not fully complete, and therefore potentially biased, it is important to acknowledge that the era we are dealing with is a peak-press era as well as a peak-oil era. The mere quantity of newspapers is to some extent making up for the omissions in the archive. On the other hand, the following argument is not based or dependent on a quantitative study of distribution and frequencies of ‘oil’ as concept, but rather a discourse analysis of how oil is represented, framed, and interpreted in a typical selection of newspaper texts: book reviews, news reports, and advertisements. My approach is inspired by print culture studies, reception theory, new historicism, modern periodical studies, and the nodal principle of comparative literary historiography.¹⁴ The article explores how literary and non-literary representations of oil can serve as – to use Stephen Greenblatt’s words – “each other’s thick description”.¹⁵ The ideal of writing thick histories has been central for print culture studies the last couple of decades.¹⁶ Regarding the concept of print culture, I follow Laurel Brake’s inclusive nomenclature to “maximise links and overlaps among the periodical, newspaper and book”.¹⁷ Conjoining different press mediated narratives, moving in and out of *Oil!*,

¹¹ Allan Stoekl, “Foreword”, in Ross Barrett and Daniel Worden (eds.), *Oil Culture* (Minneapolis: University of Minnesota Press, 2014), xi.

¹² *Ibid.*, xii.

¹³ H. G. [Herbert George] Wells, “Fuel Getting is Serious Problem of World Today”, *The Sunday Star*, Part 2, 30 October 1927, 1.

¹⁴ Cf. Hans Robert Jauss, *Toward an Aesthetic of Reception*, and Mario J. Valdés, “Comparative Literary History, Theory and Practice: John Neubauer’s Contribution”, *Arcadia*, vol. 38, n° 2, 2003, 394–398.

¹⁵ Stephen Greenblatt, “The Touch of the Real”, *Representations*, vol. 59, n° 1, 1997, 22.

¹⁶ Cf. Ann Ardis, Patrick Collier, “Introduction”, in Ann Ardis and Patrick Collier (eds.), *Transatlantic Print Culture, 1880–1940: Emerging Media, Emerging Modernisms* (Basingstoke: Palgrave, 2008), 7.

¹⁷ Laurel Brake, “On Print Culture: The State We’re In”, *Journal of Victorian Culture*, vol. 6, n° 1, 2001, 135.

is a method to come closer to the ideas and practices of oil in the 1920s. Symptomatically, the press is vital even for the plot development in the novel.

PRINT CULTURE AND PETROMEDIA

- 7 In Upton Sinclair's *Oil!* media frenzy is explicitly thematised and a topic for satire throughout the novel. The dynamics of the press seems to be particularly attractive for the narrator as it fuels the plot at crucial moments, as when the young university student Bunny Ross and his fellow comrades are launching the radical newspaper "The Investigator" to reveal the truth about US continued activities in Russia after World War I: "At last it was printed; there lay the sheets, fresh from the press, soft and damp, like locusts newly emerged from the chrysalis".¹⁸ The reader senses the oil-heir's fascination for the material and literally aesthetic aspects of news production. The irony is that "The Investigator", this idealist organ for socialist thoughts, becomes an object for speculation immediately after the Dean has confiscated the unsold copies.

[...] enough had been distributed to set the campus ablaze. "Have you read it?" "Have you got a copy?" – that was all anybody heard that day. The price of "The Investigator" leaped to one dollar, and before night-fall some had sold for two or three times that price.

One reason was that a copy had reached the Angel City "Evening Booster," most popular of newspapers, printed in green, five editions per day.¹⁹

- 8 The domino effect is a fact, and a row of newspapers with generic titles such as "Evening Roarer" and "Evening Howler" follow up to uncover the "Bolshevik propaganda" at the Southern Pacific University. The scoop of the day is that "Son of Oil Magnate Backs Soviets!".²⁰ This is just one example of how the press dynamics interfere

with the plot in *Oil!*, in this case initiated by the protagonist himself. More often in the novel, newspapers are depicted as channels of information bringing the rest of the world to the US. The news crossing the big oceans, interrupting the Californian idyll, are basically reports from the geopolitical drama that is both affecting and affected by American oil business.

Upton Sinclair's story of how big oil bought politicians who could best serve their capitalist interests was to a great extent based on reports and material revealed through the press. Crucial for the plot development in *Oil!* is not only how president Wilson in 1917 proclaimed American entrance into World War I; Sinclair's critique of a society driven by oil logic is first of all fuelled by the so-called Teapot Dome scandal in which members of Harding's government, as Peter Hitchcock summarises, "were bribed to lease, without competitive bidding, oil-rich land in Wyoming and California to oil entrepreneurs like Edward L. Doheny (a model for Ross) and Harry F. Sinclair (no relation to Upton)".²¹ The American edition of *Oil!* starts with a disclaimer, where readers are warned – or assured – that "the cards have been shuffled", which means that names, places, episodes, and details of character should not be identified with real names, events, etc., except that the last three presidents of the United States appear as recognisable personalities in the novel. There is no secret that the politics of Woodrow Wilson (president 1913–1921), Warren G. Harding (1921–1923), and Calvin Coolidge (1923–1929) affect the story in different ways.

In the Norwegian version of *Oil!* the preface has become a postface; the disclaimer is moved from front to back, placed as an afterword ending the second part of the novel. This means that Scandinavian readers were shorn of crucial context when they started reading *Oljen*. Note that there was a six-months delay between the launching of the first and the second part. However, the Teapot Dome scandal was well

¹⁸ Upton Sinclair, *Oil!* (New York: Penguin Books, 2007), 280.

¹⁹ *Ibid.*, 281–282.

²⁰ *Ibid.*, 282.

²¹ Hitchcock, "Oil in an American Imaginary", 93 (cf. note 4).

covered even in Scandinavian newspapers, and the Norwegian readers were prepared for Upton Sinclair's political satire also in other ways. In 1925 the Norwegian historian and geographer Anton Mohr had published *Kampen om oljen*, a book launched in English in 1926 as *The Oil War*, in which the history and geopolitical impact of oil were discussed at length. Mohr's book, which includes individual chapters on Standard Oil, Royal Dutch Shell, and different national oil operations before and during World War I, was published by Aschehoug, the same publishing house that three years later launched Sinclair's *Oil!* in Norwegian. Aschehoug was also responsible for the influential journal *Samtiden*, in which several thought-provoking articles on oil were published in the 1920s. In one of these, historian and politician Jakob Friis stated that there is hardly a word more frequently used in the newspapers nowadays than "olje" ('oil').²² That a new type of fuel appears as more salient than previously dominant energy forms is probably characteristic for any kind of energy transition, and Friis was not alone feeling that oil was everywhere at the time. Among his references are Francis Delaisi's *Le Pétrole* (1921) and Louis Fischer's *Oil Imperialism* (1927) in addition to Anton Mohr's book.

11 Important to consider when studying pervasive petrocultures is how *Oil!* was first published serially in the newspaper the *Daily Worker* – from June 1st to September 4th, 1926 – before being published as a book on March 25th, 1927.²³ Even translations of *Oil!* appeared in serialised form before they were launched as books, which explains why the first part of the Swedish translation was available as early as December 1926. Quickly, *Oil!* ran to three editions.²⁴ Scandinavian newspapers had for several years published serialised and translated versions of works by Sinclair, such as *The Jungle* (orig. 1906) and *King*

Coal (1917), but also non-fiction, such as *Letters to Judd, an American Workingman* (1925), was particularly popular in the socialist press. Some newspapers were deeply devoted and printed Sinclair quotes almost daily, often without any comments, as a word for the day. Regarding the book version of *Oil!*, both the Swedish and the Norwegian translation were published in two parts, thus preserving some of the original seriality. But the fact that the Swedish version was launched with two separate titles – *Olja* (1926) and *Bunny Ross* (1927) – confused some of the reviewers, as we soon will see.

In general, it is fair to say that publishing and dissemination of literature through newspapers was made possible by fossil fuels. As Vaclav Smil points out, fossil-fuelled societies have, from their very conception, "produced, stored, distributed, and used incomparably larger amounts of information than their predecessors".²⁵ Already in the mid-nineteenth century, the first steam-driven rotary presses were put to use. Newspapers kept their footing as the true mass-media of early 20th C. even after regular radio broadcasts started in the 1920s. In Scandinavia, the numbers of newspapers peaked in the 1920s and 1930s. The inter-war period was a golden age for the press in both Sweden and Norway.²⁶ Every single town had at least three papers representing different political parties and organisations. This meant that the need of printer's ink increased as well. In 1927 the journal of the Norwegian typographer's trade, *Typografiske meddelelser*, informed their readers of the high quality of petroleum-based American soot-colour which was preferable to the German pit coal-based soot-colour.²⁷ The shift of energy regimes affected the very chemistry of printing technology.

²² Jakob Friis, "Oljekrigen: et blad av dagens internasjonale politikk", *Samtiden*, vol. 39, 1928, 210. The article is dated December 1927.

²³ Rabindra Nath Mookerjee, *Art for Social Justice: The Major Novels of Upton Sinclair* (Metuchen, New Jersey: Scarecrow Press, 1988), 77.

²⁴ Anderson, *The Swedish Acceptance of American Literature*, 67 (cf. note 8).

²⁵ Vaclav Smil, *Energy and Civilization: A History* (Cambridge and London: The MIT Press, 2018), 333.

²⁶ Rune Ottosen (ed.), *Norsk presses historie 1660–2010*, vol. 2, *Presse, parti og publikum 1880–1945* (Oslo: Universitetsforlaget, 2010), 26–28; Einar Østgaard (ed.), *Pressen i Norden: en bok om pressen i de nordiske land, dens historie og dens oppgaver i dag* (Oslo: Gyldendal, 1978), 19; Karl Erik Gustafsson, Per Rydén, *A History of the Press in Sweden* (Gothenburg: Nordicom, 2010), 177.

²⁷ "Fra trykkfarvenes fremstilling", *Typografiske meddelelser*, vol. 52, n° 42, 1927, 344.

OIL IN THE NEWSPAPERS

- 13 If we look at the content and the visual appearance of a random newspaper from the 1920s diverse proofs of an emerging petroculture unfold. On the front page, the name of the paper might be encircled by advertisements for petrol, cars, tyres, or maybe a local garage. Further down on the page there would be a news piece reporting on the tense energy situation in the world or corruption scandals in the US oil industry. There might be letters to the editor inveighing against reckless driving along the local country road. In the 1920s newspapers reported frequently on fatal car and motorbike accidents, sometimes with kids involved. Aeroplane accidents were also in the headlines.
- 14 On the other hand, newspapers reported enthusiastically on new air routes that finally made it possible to bring post from Oslo to Berlin within one day. Oil was thematised both directly, as an energy source potentially replacing coal, and indirectly, as when new technical inventions and ways of traveling were the focus of attention. Aviation progressed in these years. In May 1927 Charles Lindberg made his historic transatlantic flight from New York City to Paris. Less successful were the polar explorers who disappeared in the Arctic in their quest to be the first to reach the North Pole by plane. Several news items from November and December 1928 reported on a four-days car race from Milan to Oslo via Malmö, organised by a Milan automobile club to honour the polar hero Roald Amundsen who died on a rescue mission in the Arctic earlier the same year when seeking missing members from Umberto Nobile's crew.²⁸ Newspapers followed these events from day to day.
- 15 Despite efforts to normalise driving in the late 1920s, cars were still a contested means of transport. Newspapers reported about cyclists forced off the road and horses scared to death by roaring cars. Muscle power was still in the game. Horsepower was often highlighted to

describe the historical moment of energy transition. For example, on the 2nd of January 1926, the Stockholm paper *Dagens Nyheter* published an illustrated article about how automobiles had taken over Stockholm at the expense of horses. Whereas in 1905 there were one car per 14 horses there were now one horse per 11 cars.²⁹ Driving cars was obviously not only for the elites anymore, but neither was it a necessity for everyone.

It was in August 1926 that newspapers begun reporting about 'the Swedish car' ("Svenska bilen") as the recently established Volvo company in Gothenburg had declared its intention to produce a thousand cars to be ready for the coming spring-season.³⁰ In the following months, Scandinavian newspapers wrote frequently about the progressing production and the possibilities for getting a car at a fair price. In 1927 advertisements for "Den Svenska bilen Volvo 1927" (the Swedish car Volvo 1927) – an open model on exhibition – could be seen in a number of Swedish newspapers. The ad as such is quite modest, with a simple drawing of the front grill of the car as the only visual element, but the verbal designation 'the Swedish car' conveys a powerful message, signalling both national pride and an admission that up till then the large-scale car industry had been anything but Swedish. Cars were mostly American, French, Italian, German, and British. Now the situation was about to change. In 1926 cars and driving were hot topics in the Swedish newspapers, more than in the Norwegian press, and sometimes car references seeped into the book reviews.

FROM THE SCANDINAVIAN CRITICAL RECEPTION OF OIL!

When book reviewers draw analogies between literary practice and industrial car production it is not necessarily in praise of the author. Yet the parallel may underline the value of effectivity – both aesthetically and in terms of work

²⁸ "Billøp fra Milano til Oslo", *Kongsvinger Arbeiderblad*, 29 November 1928, 1.

²⁹ "Hästens svåra kamp mot automobilismen inom huvudstaden", *Dagens Nyheter*, 2 January 1926, 9.

³⁰ "Svenska bilen ferdig i vår", *Dagens Nyheter*, 24 August 1926, 1.

ethic. When the Swedish translation of *Oil!* was launched right before Christmas in 1926 the reviewer in the Stockholm paper *Arbetaren* put it this way: ‘I would not be surprised if Upton Sinclair writes his books as regularly as Henry Ford makes his cars’.³¹ The reviewer’s initial scepticism towards American culture in general, perceived as shallow and detached from reality, evaporates as he must admit that Sinclair’s *Oil!* is simply captivating (“betagande”). The reviewer is particularly impressed by Sinclair’s skills in describing the pace of work. The reader can see and hear it all: the American working speed and the competition that never lets people rest or reflect over their conditions.

18 The reviewer in *Aftonbladet* is focusing on the self-made man who has worked hard to become an oil-king, and he is fascinated by how all the stages and aspects of oil production are described in Sinclair’s novel, convinced that the writer has done thorough research.³² The reviewer seems to be unaware that the novel has a second part yet to be published and asks for a more distinct plot with a marked culmination. In *Olja* it is as if Ariadne’s thread is leading the reader back to where it started. *Aftonbladet*’s reviewer is also a little puzzled by Sinclair’s portrayal of the oil magnate, as he sees him as a sympathetic and nice guy, and wonders if even the “red” writer Upton Sinclair might have been infected by the patriotic feelings that swept over the USA at the time when the country entered the war.

19 In the Good Templar Society paper *Reformatorn*, the reviewer states from the very beginning that the witches’ dance around oil – the modern world’s most important product – has inspired Upton Sinclair to write this extraordinary portrayal of the American society.³³ At this time, July 1927, the second part of *Oil!* was rendered in Swedish with the title *Bunny Ross*, which underlines the shift of focus from the oil tycoon

J. Arnold Ross Sr. to his socialist minded son Bunny, but *Reformatorn*’s reviewer thinks the publisher should have used the same title given the fact that *Olja* and *Bunny Ross* are two parts of the same novel. Contrary to the reviewer in *Aftonbladet*, the critic in *Reformatorn* underlines that Sinclair sympathises with “the red ones” (“de röda”) in the social struggle, but even here the reviewer is struck by how the books seem to express an unmistakable admiration for the power and initiative of the oil magnates. *Reformatorn*’s reviewer points out how the scandal described in the latter part of *Bunny Ross* is a real scandal thoroughly covered by Swedish newspapers a few years ago. Although not specifying any name, the reviewer is most likely hinting at the 1924 reports of the Teapot Dome scandal in which the Harding administration was involved.

One of the questions I hoped to find answers to 20 by looking into the newspaper archives was to what extent Scandinavian reviewers in the 1920s were interested in oil as substance and energy source, or if Sinclair’s supposedly political message overshadowed this material aspect. True, both conservative and socialist critics made sure to remind their readers of Sinclair’s political stance, but many of them also focused on the materiality and agency of oil itself. The anonymous reviewer in *Lister*, a local newspaper from the south coast of Norway, took notice of the powerful connection between form and content in Sinclair’s novel: it felt as if the calm surface was about to burst any time, in the same way as oil would blast the most secure towers, gush forward, ignite, and destroy everything. It was as if the agency of the substance (“stoffets handkraft”) had provided Sinclair with his artistic means.³⁴

In Norway, Upton Sinclair’s *Oljen* seemed to be 21 a positive surprise for many conservative critics who had been sceptical towards Sinclair to begin with. One example of such a reluctant acceptance of Sinclair’s talent can be found in

³¹ R. C., “En ny bok av Sinclair”, *Arbetaren*, 23 December 1926, 4.

³² Markus, “En roman om olja”, *Aftonbladet*, 5 January 1927, 8.

³³ E. J-n., “Från bokhyllan”, *Reformatorn*, 16 July 1927, 7.

³⁴ Anonymous, “Upton Sinclair: ‘Oljen’”, *Lister*, 21 November 1928, 2.

Norges Handels og Sjøfartstidene (*The Norwegian Journal of Commerce and Shipping*) on the 23rd of November 1928. The reviewer sets off in an ironical and slightly patronising tone, suggesting that there is something hypocritical about a socialist writer living like a millionaire in Pasadena, California. The reviewer finds Sinclair's societal critique too harsh but appreciates his latest novel as a fascinating portrait of the world's greatest industry nation. The oil industry itself – the ambitious tycoon, the many aspects of drilling, and even destruction of idyllic nature – is 'brilliantly painted' ("glimrende malt").³⁵

22 The strongest emphasis on oil as protagonist could be read in the conservative Oslo newspaper *Aftenposten* on the 12th of December 1928. The reviewer appreciates that Sinclair is less of an agitator in *Oil!* than he was in *The Jungle*, and he admits (somewhat ironically) that while reading he almost forgot that the goal of the book is social revolution, which (from his conservative position) is in the novel's favour. The main character in Sinclair's 'monstrous opus' ("uhyre opus") is no mortal individual, the reviewer explains, 'but a precious industry product and a source of income for millions of Yankees – the oil, American oil. We are offered an in-depth course on the nature of oil, its birthplace and dominion, its whims and achievements, from cradle to grave, so to speak'.³⁶ Grouped around this 'omnipotent agent' – oil, that is – are the minor characters: the human beings.

23 This lack of interest in people is something that other reviewers find problematic about the novel, but learned scholarly critics, such as *Dagbladets* reviewer Dr. A. H. Winsnes, can explain to his readers that Sinclair's novel is typical for the US revival of the great social novel in the naturalist style of Emile Zola, and in this tradition portrayal of character is less important than the social and economic macrostructures shaping human life. The novel is broad and compact, he admits, but still full of speed and stinging satire giving life

to the story. Even Winsnes is impressed by the dimensions of Sinclair's enterprise: the whole saga of oil brought to life through the story about a single deposit, its discovery, extraction, and its impact on individual lives as well as on society and geopolitics.³⁷

In *Kongsvinger Arbeiderblad*, half the front page of the November 29th issue is covered by a rich book review of *Oljen* written by the editor Johannes Stubberud himself, who is particularly concerned about the unfair and dangerous working conditions for the oil workers as described in the novel.³⁸ Aesthetically, Stubberud is a bit worried that Sinclair's political message might have been overshadowed by the ironic idyll in the first part of *Oil!*, but he can assure his fellow partisans that Sinclair returns to his former self in the second part. The editor knows well what is coming as he has read the Swedish translation already. Making the effort to explain the differences between the Norwegian and the Swedish editions as well as comparing them with the English original, Stubberud comes forward as a true expert on Sinclair's writings. That a local Labour Party paper, produced in a small Norwegian town close to the Swedish border, spent considerable space comparing different editions of an American novel might appear exotic from today's point of view, but it says a lot of Sinclair's international standing in the interwar era.

25 My overall impression is that the book reviewers in the late 1920s Scandinavia were fascinated by Upton Sinclair's ambitious novel. Socialist newspapers were quite panegyric in their evaluations; the conservatives commended the novel more reluctantly. Both Swedish and Norwegian reviewers emphasised the value of being enlightened by the book and the way *Oil!* gave them a deeper understanding of the workings of oil. While some critics expressed fascination about oil as substance and economic force, others

³⁵ T., "Nye bøker", *Norges Handels og Sjøfartstidende*, 23 November 1928, 6.

³⁶ Ejler Bjerke, "Oljen", *Aftenposten*, 12 December 1928, 8.

³⁷ A. H. [Andreas Hofgaard] Winsnes, "Upton Sinclairs 'Oljen'", *Dagbladet*, 24 November 1928, 7.

³⁸ J. S. [Johannes Stubberud], "Upton Sinclair: Oljen", *Kongsvinger Arbeiderblad*, 29 November 1928, 1.

were worried about the risks oil workers were exposed to, but no one was particularly concerned about oil's environmental harm. First and foremost, in 1926–1929 petroleum oil seemed to signify hope in a global economy threatened by crisis. The news articles surrounding the book reviews testify to this interpretation.

OIL AS WORLD LITERATURE

26 In the wake of World War I, there was a lot of concern regarding secure energy supplies and the price of fuel. In 1920 a group of men from shipping and finance in Norway started the limited liability company Norsk Brændselolje A/S (lit. Norwegian furnace oil corporation) to make sure that petroleum oil was effectively distributed to industry and consumers across the country at a reasonable price. Anglo-Persian Oil Co. became the largest shareholder, with a fifty percent block of shares, and committed to deliver oil to the Norwegian distribution company.³⁹ As Gudbrand Askvig, the managing director of the newly established Norsk Brændselolje A/S, stated to an equally newly established journal for oil-heating technology, *Oljefyring* (1920), the oil issue is as much a question about transport as it is about production.⁴⁰ As long as the price of coal was as high as it was after the war, the Norwegian shipowners envisioned a future where oil-fuelled ships would be more profitable than coal-fuelled ships, especially for neutral states. Within a few years, Norsk Brændselolje A/S built distribution sites for fuel oil, diesel, and petrol along the coast of Norway. Historians of economics and trade have highlighted the Norwegian company Norsk Brændselolje A/S as one example of how countries and business stood up against cartels in the interwar era.⁴¹ Thus, the geopolitical events described in *Oil!*

³⁹ Eivind Thon, *Oljens eventyr: En historikk for Norsk Brændselolje A/S* (Oslo: Emil Moestue, 1950), 114.

⁴⁰ "Oljefyringen og oljesituationen. En uttalelse av Norsk Brændselolje A/S i 'Tidsskrift for Oljefyringsteknik'", *Norges Handels og Sjøfartstidende*, 15 October 1920, 6.

⁴¹ Pål Thonstad Sandvik, Espen Storli, "The quest for a non-competitive market: Standard oil, the international oil industry and the Scandinavian states, 1890–1939", *Scandinavian Economic History Review*, vol. 68, n° 3, 2020.

resonate well with events in Scandinavia in the early 1920s. The region's involvement in international affairs and global trade was – and still is – largely defined by its critical position between East and West.

In the 1920s corporate oil industry was established and oil imperialism beginning to spread. In a critical comment to Amitav Ghosh's essay on petrofiction, Graeme Macdonald emphasises that oil literature, like oil itself, "has significant global transportation routes, value changes, and multiple and uniform forms".⁴² He is accordingly sceptical about the notion of the Great American Oil Novel, or other national oil literatures, for that matter.

Oil literature is simultaneously global and domestic. As a world resource, however unevenly distributed, oil, like world literature, has an unequal movement and an uneven development because of the hierarchy of nation-states in the world system that consume and produce it in varying levels. This conflict inserts itself into petroliterature, whose world provenance presents a geocultural challenge for anyone interested in tracking and connecting the wide range of the oil imaginary. Its multinational structures, routes, and determinations ensure petrofiction's contemporary identification as a subgenre of literature more productive under the rubric of "world literature" than it is under that of any national literary corpus.⁴³

After reading the close of *Oil!* – where actors in the emergent US oil dynasties of the early 20th C. consider the need to expand their business internationally – Macdonald has become aware of a transnational line of petrofictions spanning the last hundred years. In many ways my analysis of the critical reception of *Oil!* in Scandinavia supports Macdonald's observations.

In 1929 Johan Falkberget – himself a socialist writer known for his historical novels set in the copper mining community at Røros in eastern

⁴² Macdonald, "Oil and World Literature", 7 (cf. note 6).

⁴³ *Ibid.*, 31 (cf. note 6).

Norway – envisioned how future generations might blow off the dust of Upton Sinclair’s *Oil!* because he senses that the novel is ahead of its time. In the future socially engaged, naturalist, and so-called tendentious literature would no longer be disdained, Falkberget believed. The next century would probably have quality standards making it easier to approve of literature working in the service of life (“i livets tjeneste”).⁴⁴ *Oil!* is the kind of novel not written in vain because Sinclair’s ‘operating knife’ – Falkberget’s metaphor for efficient words making a real difference in the world – will make society healthy in the long-run. In a similar vein Johannes Stubberud stated that due to their loyalty towards reality *Oljen* and *Bunny Ross* (cf. the Swedish forking of the novel) must be described as pearls of world literature (“perler i verdenslitteraturen”).⁴⁵

30 Unlike Falkberget, Johannes Stubberud takes for granted that Upton Sinclair is canonised already, and to some extent he was, at least in socialist circles of print culture. At that time there were continuous speculations in the press about whether Sinclair would receive the Nobel prize in literature or not. In 1932 a substantial group of authors and scientists from more than fifty countries, among them Bernhard Shaw and Albert Einstein, campaigned for Sinclair to be rewarded the Nobel prize. The syndicalist paper *Alarm* expressed some scepticism on that matter, not because Sinclair did not deserve the prize – quite the contrary; with a large number of books translated to 34 different languages worldwide he should have received the prize long time ago – but because they did not find it likely that a bourgeois minded Swedish Academy would dare to reward a rebel and social writer like Upton Sinclair the Nobel prize of the year.⁴⁶

31 Sure enough, Sinclair was never rewarded the Nobel prize, and in the second half of the 20th C. few critics showed much interest in Upton Sinclair’s literary output. Christopher Taylor has

tried to explain why Sinclair’s novels have been almost disappearing from academic discourse despite the writer’s enormous influence during his lifetime.⁴⁷ One important reason is that many theoretically learned critics found his novels too didactic and lacking the kind of ambiguity often emphasised when quality and canon are at issue, but as Taylor rhetorically asks: why should a popular didactic tradition deriving from ancient exempla be excluded from the academy?⁴⁸ Regarding *Oil!*, Taylor finds the novel much more complex than some critics tend to think.

REAPPROPRIATING THE PAST

In the history of literature there are several examples of how new developments in taste and literary form can reopen access to forgotten literature. However, as noted by German literary historian Hans Robert Jauss, such “renaissances” will not return automatically; “a literary past can return only when a new reception draws it back into the present, whether an altered aesthetic attitude willfully reaches back to reappropriate the past, or an unexpected light falls back on forgotten literature from the new moment of literary evolution, allowing something to be found that one previously could not have sought in it”.⁴⁹ Although *Oil!* from the very beginning was embraced by readers worldwide, and is far from a difficult read in the way Jauss’ examples from the romantic and modernistic eras are difficult, I argue that the historical dynamics described above very well apply to *Oil!* For many readers in the 1920s Upton Sinclair was contaminated by communist ideas, but for intellectuals today this is not necessarily a problem. Much research in the field of petroculture studies is characterised by a revival of critical theory based on Marxist ideas. But more important for the revival of *Oil!* today is probably the lifelike realism that makes it possible to extract different messages from

⁴⁴ Johan Falkberget, “‘Oljen.’ Et mektig verk – og en glimrende oversettelse”, *1ste Mai*, 26 February 1929, 6.

⁴⁵ J. S., “Upton Sinclair: Oljen”, 1 (cf. note 38).

⁴⁶ Carl O. Tangen, “Får Upton Sinclair Nobelprisen”, *Alarm*, 6 February 1932, 3.

⁴⁷ Christopher Taylor, “‘Inescapably Propaganda’: Re-Classifying Upton Sinclair outside the Naturalist Tradition”, *Studies in American Naturalism*, vol. 2, n° 2, 2007, 166.

⁴⁸ *Ibid.*, 176.

⁴⁹ Hans Robert Jauss, *Toward an Aesthetic of Reception* (Minneapolis: University of Minnesota Press, 1982), 35.

the novel. The very naturalism of *Oil!* and its loyalty to historical facts make it easy to connect the novel with perspectives in today's energy humanities and petroculture studies. The materialist turn in the humanities may have made us more attentive to oil as substance, and the tense geopolitical situation of today makes the novel's "war of oil" painfully current again.

33 In *Living Oil* Stephanie LeMenager pointed out that Sinclair's novel is "a type of peak oil fiction, since it was written as a warning against global petromodernity from around the moment of peak oil *discovery* in the United States", and she remarked that the novel "strives to imagine curtailing petromodern development in a manner complementary to the fictional post-petrol futures offered by twenty-first-century peak oilers".⁵⁰ The striking parallel between the 1920s and the 2000s is expressed by the nostalgia for oil typical for peak oil discourse both then and now. Loosely based on Sinclair's novel, Paul Thomas Anderson's 2007 film adaptation *There Will Be Blood* might have contributed to this aesthetics of petronostalgia today. Anderson's film seems to have inspired the Norwegian TV series *Lykkeland* (*State of Happiness*) as well (first season screened by NRK 2018), which means that Sinclair's work has become relevant for a Scandinavian audience indirectly by the way of contemporary screen cultures. For instance, in the first season of *Lykkeland*, the viewers are exposed to the same fascination for oil-soaked men as highlighted in Anderson's film. As LeMenager has demonstrated, this kind of image was already a crucial ingredient in promotion material issued by Edward L. Doheny's Pan American Petroleum and Transport Company: the booklet *Mexican Petroleum* (1922).⁵¹ The gusher and the platform worker covered in oil in the Norwegian TV series *Lykkeland* is similarly an image of promise and future wealth.⁵² However, in none of these examples – *Mexican Petroleum*, *Oil!*, *There Will Be Blood*, or *Lykkeland* – does the

environmental costs of oil seem to be an issue. In Norwegian journalist Simen Sætre's travelogue *Petromania*, Bunny Ross is briefly referred to as a moral voice warning oil-wealthy nations like Norway about the temptation of grandeur.⁵³ The concept of petro-guilt has even in 21st C. studies on Norwegian petromedia been synonymous with wealth-guilt.⁵⁴ Only recently have humanities scholars in Scandinavia started taking the environmental aspects of petromedia seriously.

The influence from North American petroculture 34 studies has been crucial for this environmental turn, and particularly eye-opening is LeMenager's attentiveness to how modern production of books, newspapers, and other media are physically and chemically dependent on oil. Reflecting on the petro-aesthetics of Upton Sinclair's novel she writes: "A mixture of petroleum-based resins and oils make up the ink that creates the words on the page of my edition of *Oil!*, words that direct my imagination and activate my senses. I literally enter an immersive, virtual environment through petroleum language."⁵⁵ As I have tried to show in this article, the petroleum language that many readers take for granted today was highly perceptible in the booming 1920s print culture. Over the last hundred years we have sensed and perceived the world through petroleum media. LeMenager describes oil itself as "a medium that fundamentally supports all modern media forms concerned with what counts as culture – from film to recorded music, novels, magazines, photographs, sports, and the wikis, blogs, and videography of the Internet".⁵⁶ The last point is important to acknowledge in a study making extensive use of digitised newspaper archives.

In this article I have considered the material- 35 ity of the historical sources because – as Maria DiCenzo has emphasised for modern periodical

⁵⁰ LeMenager, *Living Oil*, 70 (cf. note 2).

⁵¹ *Ibid.*, 95–96 (cf. note 2).

⁵² Petter Næss, Pål Jackman, *Lykkeland*, Season 1, Ep. 2, 2018, 43:12.

⁵³ Simen Sætre, *Petromania: En reise gjennom verdens rikeste oljeland for å finne ut hva pengene gjør med oss* (Oslo: J.M. Stenersens forlag, 2009), 20.

⁵⁴ Ellen Rees, "Privilege, Innocence, and 'Petro-Guilt' in Maria Sødahl's *Limbo*", *Scandinavian Studies*, vol. 88, n° 1, 2016, 44–59.

⁵⁵ LeMenager, *Living Oil*, 70–71 (cf. note 2).

⁵⁶ *Ibid.*, 6 (cf. note 2).

studies in general – the “remediation of print artifacts in digitized form has underscored the need to understand the production, circulation, and uses of material forms, including paper itself as well as print media as objects”.⁵⁷ Or as Carolyn Elerding puts it: “Computational culture shares oil’s black-boxed ontology”.⁵⁸ Referring to Raymond Williams’ notion of “structure of feeling”, Elerding makes the point that petroculture and the digital “are linked by a vast and robust structure of feeling rooted in techno-science and related progressive narratives, as well as by a close material relationship based on the world of code’s reliance upon electricity commonly derived from carbon combustion”.⁵⁹ In Norway and Sweden servers and datacentres are basically driven by hydropower, but this fact does not eliminate the dilemmas related to energy demand for research infrastructure. In January 2023 the National Library of Norway warned their users that public grants would no longer cover energy costs and other expenses, which meant that the library might be forced to remove 100 000 books from the digital bookshelf.

CONCLUSION

36 In the generous digitised archives oil and energy appear in many forms. Trying to understand the emerging petroculture in 1920s Scandinavia I have quarried newspaper-mediated critical reception of Upton Sinclair’s *Oil!* in Sweden and Norway from the years 1926–1929 paying attention to both book reviews and their broader press context. Print culture in general plays a crucial role in synchronising the world in the early 20th C. My analyses of the Swedish and Norwegian critical reception of Sinclair’s *Oil!* in the late 1920s has been based on a hypothesis that studying this instance of unmistakable petrofiction travelling from the pioneer US petroculture to a less explicit, less known, and late-blooming

Scandinavian petroculture might add valuable knowledge about the cultural negotiations taking place when an old energy regime is challenged by a new one. By combining a goal-oriented search for book reviews that necessarily are about oil in one way or another with analyses of news texts in close proximity to the reviews it has been possible to come closer to Scandinavian readers in their specific 1920s energy contexts. On the one hand, my method has ensured explicit reflections on oil as energy source and world commodity, for example that *Oil!* seems to have been a welcome opportunity for Scandinavian reviewers in the late 1920s to deal with the strangeness of oil and getting accustomed to the coming of a pervasive American petroculture. On the other hand, the method has been flexible enough to allow for surprises on the way and to direct the attention to various local manifestations of oil.

Energy historians have long been well informed 37 of how World War I became a catalyst for energy transition in the 1920s. Still petroculture scholars refer to the invisibility of oil as a historic fact. I suspect that the notion of invisibility can be explained by a tendency to abstraction in certain academic traditions. What open digitised newspaper archives can offer is to transport the 21st C. readers back in time so that we can come closer to the energy transition taking place in the interwar era. My main motivation for including fiction as source text together with nonfiction accounts is that literature may let us, as Heidi Scott puts it, “arrive at an emotionally and philosophically more robust synthesis of energy history than the social and natural sciences, relying upon objective accounts and statistics, are able to provide”.⁶⁰ However, it does not stop at that. When Graeme Macdonald in “Oil and World Literature” emphasises that questions of oil’s visibility and configuration in national literary histories need to be reconceptualised both geographically and generically, I read this as an invitation to include even newspapers in the genre mix. Note that Upton Sinclair was himself a writer and an investigative journalist who

⁵⁷ Maria DiCenzo, “Remediating the Past: Doing ‘Periodical Studies’ in the Digital Era”, *ESC: English Studies in Canada*, vol. 41, n° 1, 2015, 27.

⁵⁸ Carolyn Elerding, “The Materiality of the Digital: Petro-Enlightenment and the Aesthetics of Invisibility”, *Postmodern Culture*, vol. 26, n° 2, 2016.

⁵⁹ *Ibid.*

⁶⁰ Heidi C. M. Scott, *Fuel: An Ecocritical History* (London: Bloomsbury, 2018), 23.

combined imagination with detachment and narrative with data. As a muckraker his ambition was “to weave the scattered strands of empirical reality which tickle the eyes and ears and nose into coherent and comprehensible causal stories

that touch the farther regions of intellect and will”.⁶¹ A century later the petroculture scholar’s experiment in letting literary and non-literary representations of oil serve as each other’s thick description is motivated by a similar ambition.

61 Jason Maloy, “Political Realism as Anti-Scholastic Practice: Methodological Lessons from Muckraking Journalism”, *Political Research Quarterly*, vol. 73, n° 1, 2020, 32.

Bibliography

Archival sources

This article makes use of digitised newspapers and magazines from Nasjonalbiblioteket (National Library of Norway) and Kungliga biblioteket (National Library of Sweden). The newspaper database *Chronicling America* is also consulted for comparative purposes.

Anonymous

“Oljefyringen og oljesituasjonen. En uttalelse av Norsk Brændselssolje A/S i ‘Tidsskrift for Oljefyringsteknikk’”, *Norges Handels og Sjøfartstidende*, 15 October 1920.

Anonymous

“Hästens svåra kamp mot automobilismen inom huvudstaden”, *Dagens Nyheter*, 2 January 1926.

Anonymous

“Svenska bilen ferdig i vår”, *Dagens Nyheter*, 24 August 1926.

Secondary Literature:

Anderson Carl L.

The Swedish Acceptance of American Literature (Stockholm: Almqvist & Wiksell, 1957).

Ardis Ann, Collier Patrick

“Introduction”, in Ann Ardis and Patrick Collier (eds.), *Transatlantic Print Culture, 1880–1940: Emerging Media, Emerging Modernisms* (Basingstoke: Palgrave, 2008), 1–12.

Barrett Ross, Worden Daniel

“Introduction”, in Ross Barrett and Daniel Worden (eds.), *Oil Culture* (Minneapolis: University of Minnesota Press, 2014), xvii–xxxiii.

Brake Laurel

“On Print Culture: The State We’re In”, *Journal of Victorian Culture*, vol. 6, n° 1, 2001, 125–136.

Anonymous

“Fra trykkfarvenes fremstilling”, *Typografiske meddelelser*, vol. 52, n° 42, 1927, 344.

Anonymous

“Upton Sinclair: ‘Oljen’”, *Lister*, 21 November 1928.

Anonymous

“Billøp fra Milano til Oslo”, *Kongsvinger Arbeiderblad*, 29 November 1928.

Bjerke Ejlert

“Oljen”, *Aftenposten*, 12 December 1928.

E. J.-n.

“Från bokhyllan”, *Reformatorn*, 16 July 1927.

Falkberget Johan

“‘Oljen.’ Et mektig verk – og en glimrende oversettelse”, *1ste Mai*, 26 February 1929.

Friis Jakob

“Oljekrigen: et blad av dagens internasjonale politikk”, *Samtiden*, vol. 39, 1928, 210–221.

Buell Frederick

“A Short History of Oil Cultures: Or, the Marriage of Catastrophe and Exuberance”, *Journal of American Studies*, vol. 46, n°2, 2012, 273–293.

DiCenzo Maria

“Remediating the Past: Doing ‘Periodical Studies’ in the Digital Era”, *ESC: English Studies in Canada*, vol. 41, n° 1, 2015, 19–39.

Elerding Carolyn

“The Materiality of the Digital: Petro-Enlightenment and the Aesthetics of Invisibility”, *Postmodern Culture*, vol. 26, n° 2, 2016.

J. S. [Johannes Stubberud]

“Upton Sinclair: Oljen”, *Kongsvinger Arbeiderblad*, 29 November 1928.

Markus

“En roman om olja”, *Aftenbladet*, 5 January 1927.

R. C.

“En ny bok av Sinclair”, *Arbetaren*, 23 December 1926.

T.

“Nye bøker”, *Norges Handels og Sjøfartstidende*, 23 November 1928. Tangen Carl O., “Får Upton Sinclair Nobelprisen”, *Alarm*, 6 February 1932.

Wells H. G. [Herbert George]

“Fuel Getting is Serious Problem of World Today”, *The Sunday Star*, Part 2, 30 October 1927.

Winsnes A. H. [Andreas Hofgaard]

“Upton Sinclairs ‘Oljen’”, *Dagbladet*, 24 November 1928.

Furuset Sissel

“Bilen som økokritisk utfordring: Carl Frode Tiller og Henrik Nor-Hansen diagnostiserer norsk petroleumskultur”, *Edda*, vol. 108, n° 2, 2021, 128–141.

Furuset Sissel et al.

“Climate Change in Literature, Television and Film from Norway”, *Ecozon@*, vol. 11, n° 2, 2020, 8–16.

Ghosh Amitav

“Petrofiction”, *New Republic*, 2 March 1992, 29–34.

Greenblatt Stephen

“The Touch of the Real”, *Representations*, vol. 59, n° 1, 1997, 14–29.

Gustafsson Karl Erik, Rydén Per

A History of the Press in Sweden (Göteborg: Nordicom, 2010).

Hitchcock Peter

“Oil in an American Imaginary”, *New Formations*, n° 69, 2010, 81–97.

Jauss Hans Robert

Toward an Aesthetic of Reception (Minneapolis: University of Minnesota Press, 1982).

LeMenager Stephanie

Living Oil: Petroleum Culture in the American Century (New York: Oxford University Press, 2014).

Macdonald Graeme

“Oil and World Literature”, *American Book Review*, vol. 33, n° 3, 2012, 7 and 31.

Maloy Jason S.

“Political Realism as Anti-Scholastic Practice: Methodological Lessons from Muckraking Journalism”, *Political Research Quarterly*, vol. 73, n° 1, 2020, 27–39.

Mookerjee Rabindra Nath

Art for Social Justice: The Major Novels of Upton Sinclair (Metuchen, New Jersey: Scarecrow Press, 1988).

Nixon Rob

Slow Violence and the Environmentalism of the Poor (Harvard University Press, 2011).

Næss Petter, Jackman Pål (dir. by)

Lykkeland (State of Happiness), NRK, Season 1, 2018.

Ottosen Rune (ed.)

Norsk presses historie 1660–2010, vol. 2, *Presse, parti og publikum 1880–1945* (Oslo: Universitetsforlaget, 2010).

Rees Ellen

“Privilege, Innocence, and ‘Petro-Guilt’ in Maria Sødahl’s *Limbo*”, *Scandinavian Studies*, vol. 88, n° 1, 2016, 42–59.

Sandvik Pål Thonstad, Storli Espen

“The quest for a non-competitive market: Standard oil, the international oil industry and the Scandinavian states, 1890–1939”, *Scandinavian Economic History Review*, vol. 68, n° 3, 2020, 289–305.

Scott Heidi C. M.

Fuel: An Ecocritical History (London: Bloomsbury, 2018).

Sinclair Upton

Oil! (New York: Penguin Books, 2007).

Oljen, part 1., transl. Gunnar Larsen (Oslo: Aschehoug, 1928).

Smil Vaclav

Energy and Civilization: A History (Cambridge & London: The MIT Press, 2018).

Stoekl Allan

“Foreword”, in Ross Barrett and Daniel Worden (eds.), *Oil Culture* (Minneapolis: University of Minnesota Press, 2014), xi–xiv.

Szeman Imre

“How to Know about Oil: Energy Epistemologies and Political Futures”, *Journal of Canadian Studies/Revue d’études canadiennes*, vol. 47, n° 3, 2013, 145–168.

Szeman Imre

“Conjectures on World Energy Literature: Or, What is Petroculture?”, *Journal of Postcolonial Writing*, vol. 53, n° 3, 2017, 277–288.

Sætre Simen

Petromania: En reise gjennom verdens rikeste oljeland for å finne ut hva pengene gjør med oss (Oslo: J.M. Stenersens forlag, 2009).

Taylor Christopher

“Inescapably Propaganda”: Re-Classifying Upton Sinclair outside the Naturalist Tradition”, *Studies in American Naturalism*, vol. 2, n° 2, 2007, 166–178.

The Branobel History Website, Centre for Business History in Stockholm (CBHS), 2021. Url: <https://www.branobelhistory.com/> (accessed 11/03/2023).

Thon Eivind

Oljens eventyr: En historikk for Norsk Brændselolje A/S (Oslo: Emil Moestue, 1950).
Valdés Mario J., “Comparative Literary History, Theory and Practice: John Neubauer’s Contribution”, *Arcadia*, vol. 38, n° 2, 2003, 394–398.

Østgaard Einar (ed.)

Pressen i Norden: en bok om pressen i de nordiske land, dens historie og dens oppgaver i dag (Oslo: Gyldendal, 1978).

Åsbrink Brita

Ludvig Nobel: “Petroleum har en lysande framtid!»: En historia om eldfängd olja och revolution i Baku (Stockholm: Wahlström & Widstrand, 2001).

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**Creating the Conditions for Western European
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the OEEC, and the Transition from Coal to Oil**

Abstract

In the postwar years, petroleum products pervaded more and more aspects of Western European life. In this article, we study the origins of this pervasive petroculture through the lens of the Marshall Plan/European Recovery Program (ERP), its Refinery Expansion Program, and the politics of the Organisation of European Economic Co-operation (OEEC). To that end, we examine the creation and expansion of technological infrastructures for petroleum, the institutions that promoted its growing use, and how those changes enabled the transition from coal to oil. The case is made that the ERP and OEEC had a key role in the making of a pervasive petroculture in Western Europe.

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Plan of the article

- Introduction
- Pervasiveness Through Infrastructures: Energy Industries and the ERP
 - Direct Impacts of the ERP
 - Indirect Influences of the ERP
- Institutional Petroculture: The OEEC Technical Oil Committee
 - The Organizational Structure of the Technical Oil Committee
 - How the TOC Dealt with Bottlenecks
- Material Pervasive Petroculture: Consumers Opting for Oil over Coal
 - Petroleum Products in the Transport Sector
 - Shifts in Residential Heating
 - The Substitution of Coal in Industries
- Conclusions

INTRODUCTION

- 1 The first report of the Technical Oil Committee of the Organisation of European Economic Cooperation (OEEC) from 1956, referred to oil as the “life-blood of industry, agriculture, and transport.”¹ Without oil, “the economic life of countries, technical progress and indeed the promotion of prosperity of the individual would be seriously retarded.”²
- 2 These statements might seem unsurprising given the obvious centrality of oil to our current ways of life. In 1956, however, the report of the Technical Oil Committee captured a major ongoing change in Western Europe. Oil had been produced commercially in Imperial Russia, the U.S. as well as Central and Eastern Europe from the mid-19th C. Yet the timing and the scale of the breakthrough of oil differed substantially from place to place.³ While the U.S. embraced mass motorization and oil use in the interwar years, Western Europeans remained reluctant. This changed after 1945. Within only a decade, oil was adopted across the energy spectrum and pervaded more and more aspects of modern life.
- 3 How and why did oil become so pervasive in post-WWII Europe? This article elaborates on the role of oil in the reconstruction of Western Europe. We seek to examine what kind of role the European Recovery Program (ERP), also known as the Marshall Plan, and the OEEC played for the postwar “oiling” of Europe. To understand the rise of oil, it is important to recognize that oil does not flow by itself. Crude oil and petroleum products could only pervade modern life because their flow was enabled by the construction of petroleum infrastructures, the organization of reliable crude oil supplies, and consumers of energy adopting petroleum-based technologies. Announced in June 1947 by US-Secretary

of State George C. Marshall, the ERP only concerned Western Europe, as the USSR refused to participate and forced Central and Eastern European satellite states to follow suit. At the initiative of France and the U.K., 16 other nation states then formed the so-called Committee of European Economic Co-operation (CEEC) in July 1947,⁴ succeeded by the OEEC in early 1948.

The overarching mission of the ERP was to functionally interlock infrastructure systems across national borders,⁵ selectively expand key industries,⁶ and integrate national economies into a transatlantic trading area. It was expected that economic growth would impede electoral success of Communist parties in Western Europe, and thus contain Soviet influence.⁷ To achieve these goals, substantial attention was given to the refinery industry to provide both fuel that would boost outputs of agriculture, industries, and transport systems, and inexpensive raw materials for the chemical and construction industries.⁸ In that sense, the growth of

⁴ Founding members of the CEEC were the United Kingdom, Austria, Belgium, Denmark, France, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Sweden, Switzerland, and Turkey, see: Committee of European Economic Co-Operation (CEEC), *Volume I, General Report* (London: His Majesty’s Stationary Office, 1947), 1.

⁵ Frank Schipper, “Changing the Face of Europe: European Road Mobility During the Marshall Plan Years”, *The Journal of Transport History*, vol. 28, n°2, 2007, 211-228; Frank Schipper, Johan Schot, “Infrastructural Europeanism, or the Project of Building Europe on Infrastructures: An Introduction,” *History and Technology*, vol. 27, n°3, 2011, 245-264; Vincent Lagendijk, *Electrifying Europe: The Power of Europe in the Construction of Electricity Networks* (Amsterdam: Aksant, 2008).

⁶ Matthias Schmelzer, “The Growth Paradigm: History, Hegemony, and the Contested Making of Economic Growthmanship,” *Ecological Economics*, vol. 118, 2015, 262-271; Matthieu Leimgruber, Matthias Schmelzer, “From the Marshall Plan to Global Governance: Historical Transformations of the OEEC/OECD, 1948 to Present”, in Matthieu Leimgruber and Matthias Schmelzer, *The OECD and the International Political Economy Since 1948* (Cham: Palgrave Macmillan, 2017), 23-6.

⁷ Alan S. Milward, *The Reconstruction of Western Europe, 1945-51* (London: Methuen and Co., 1984); Michael J. Hogan, *The Marshall Plan: America, Britain and the Reconstruction of Western Europe, 1947-1952* (Cambridge: Cambridge University Press, 1989).

⁸ Robert Groß et al., “How the European Recovery Program (ERP) Drove France’s Petroleum Dependency,

¹ Organisation for European Economic Co-Operation (OEEC), *Report of the Oil Committee to Be Published in 1956* (Paris: OEEC, 1956), 3.

² Ibid.

³ For an overview, see Chapters 3-6 in Daniel Yergin, *The Prize: The Epic Quest for Oil, Money, and Power* (New York: Simon and Schuster, 1991).

oil consumption in Western Europe, i.e. in the ERP-countries, went hand in hand with the U.S. becoming “an empire by invitation”, as Geir Lundestad argues.⁹ It is thus unsurprising that the quoted OEEC’s oil report of 1956, when it spoke of oil as “lifeblood”, echoed earlier assertions in the U.S.¹⁰ In contrast to the trajectory of the OEEC countries, Central and Eastern Europe remained predominantly coal-based.¹¹

- 5 This article is grounded in the research literature on the Marshall Plan and oil. Drawing on Ethan Kapstein’s and David Painter’s pioneering historical work on the place of oil in the post-war diplomacy of the U.S., and in the Marshall Plan more specifically,¹² we examine the ERP’s Refinery Expansion Program as a window of opportunity for transfers of capital, technology, knowledge and raw materials across the Atlantic. Furthermore, taking inspiration from Painter’s call for “further work comparing and contrasting each participating country’s experience over time”,¹³ we highlight the uneven importance of the ERP, depending on national circumstances.
- 6 Additionally, the analysis builds on work by Henning Türk and Rüdiger Graf, who examine OEEC activities in the field of energy through

the lens of the oil price crises of the 1970s. The authors conclude that the OEEC failed in their mission to navigate Western Europe through these crises, as the committees in charge were dissolved following the first oil price crisis and its agenda transferred to the International Energy Agency.¹⁴ Their assessment is similar to that of Alan Milward, who saw the OEEC as primarily concerned with holding regular meetings and collecting vast amounts of data.¹⁵ However, as Mathieu Leimgruber and Mathias Schmelzer argue, such a conclusion might hold true “in light of early American plans for European integration, [but] it ignores crucial soft-power functions that came to characterize OEEC (and then OECD) work.”¹⁶ According to Leimgruber and Schmelzer, the most important soft power tool within the OEEC was an institutionalized, mutual peer review, in which delegates presented and defended national plans, ultimately agreeing on a common understanding of the problem and approaches to solving it. Those who deviated were not sanctioned politically or financially, but they had to justify themselves socially.¹⁷ Based on an examination of archival materials and OEEC publications, we point to the OEEC’s and particularly its Technical Oil Committee’s hitherto underestimated role in shaping postwar petroleum relations.¹⁸

1948–1975,” *Environmental Innovation and Societal Transitions*, vol. 42, 2022, 268–284.

9 Geir Lundestad, “Empire by Invitation? The United States and Western Europe, 1945–1952”, *Journal of Peace Research*, vol. 23, n°3, 1986, 263–277.

10 Matthew T. Huber, *Lifeblood: Oil, Freedom, and the Forces of Capital* (Minnesota: University of Minnesota Press, 2013), 3, 42 and 47.

11 Jan Kovanda, Tomas Hak, “Historical Perspectives of Material Use in Czechoslovakia in 1855–2007”, *Ecological Indicators*, vol. 11, n°5, 2011, 1375–1384; Fridolin Krausmann et al., “The Metabolic Transition of a Planned Economy: Material Flows in the USSR and the Russian Federation 1900 to 2010,” *Ecological Economics*, n°124, 2016, 76–85.

12 David S. Painter, “Oil and the Marshall Plan”, *The Business History Review*, vol. 58, n°3, 1984, 359–83; David S. Painter, *Oil and the American Century: The Political Economy of U.S. Foreign Oil Policy, 1941–1954* (Baltimore: The Johns Hopkins University Press, 1986); David S. Painter, “The Marshall Plan and Oil,” *Cold War History*, vol. 9, n°2, 2009, 159–175; Ethan B. Kapstein, *The Insecure Alliance: Energy Crisis and Western Politics since 1944* (Oxford: Oxford University Press, 1990).

13 Painter, “The Marshall Plan and Oil”, 170 (cf. note 12).

As we find it necessary to look beyond international organizations and diplomacy to understand the rise of oil, we relate this history to

14 Henning Türk, “The Oil Crisis of 1973 as a Challenge to Multilateral Energy Cooperation Among Western Industrialized Countries”, *Historical Social Research/Historische Sozialforschung*, vol. 39, n°4, 2014, 209–230; Rüdiger Graf, *Oil and Sovereignty: Petro-Knowledge and Energy Policy in the United States and Western Europe in the 1970s* (New York: Berghahn Books, 2018).

15 Milward, *The Reconstruction*, 145, 158 (cf. note 7).

16 Leimgruber, Schmelzer, “From the Marshall Plan to Global Governance”, 29 (cf. note 6).

17 Schmelzer, *The Hegemony of Growth: The OECD and the Making of the Economic Growth Paradigm* (Cambridge: Cambridge University Press, 2016), 64–65.

18 Leimgruber, Schmelzer, “From the Marshall Plan to Global Governance”, 29 (cf. note 6). See also: Schmelzer, “The Growth Paradigm”, 262–271 (cf. note 6); Leimgruber, Schmelzer, “From the Marshall Plan to Global Governance”, 23–26 (cf. note 6).

energy and environmental history. Proponents of the concept of the Anthropocene have used the term Great Acceleration to denote the sharp increase of human activity and environmental impact after 1945¹⁹ that are linked to a pronounced growth of petroleum product consumption.²⁰ As Richard Lane argues in this context, the Great Acceleration was not just a self-reinforcing process driven by cheap oil, but accompanied by government agencies, which planned for the management of scarce resources.²¹ Ted Steinberg thinks along similar lines when he asks about the relationship between capitalism and the Great Acceleration.²² Our analysis adds to these debates. It focuses on the intertwining of the economic growth paradigm – a central concern of the OEEC²³ – with the growing consumption of petroleum products into a common value system. This distinct form of petroculture was shared over the years by thousands of bureaucrats all over Western Europe and accompanied the transition of energy systems in Western Europe from coal to oil.²⁴

8 Conceptually, this article provides a case study for the historical origins of pervasive petroculture under examination in this special issue. Scholars studying *petroculture* in its historical and contemporary forms typically define it as the “representations and symbolic practices that

have infused, affirmed, and sustained the material armatures of the oil economy *and* helped to produce the particular modes of everyday life that have developed around oil use”.²⁵ There are two major elements in such definitions. First the attention paid to symbolic practices, which the field of petrocultures has for the most part studied through cultural forms recognized as such, e.g., novels, music, films or magazines. Secondly, scholars in this field simultaneously emphasize how pervasive oil has become; how entangled with petroleum “we”, “as modern humans”, and “our definition of life”, have become.²⁶

We draw on both of these elements to varying degrees. The pervasiveness and the merging of the paradigm of economic growth and oil is at the heart of this article: we investigate the making of the stable configurations of petroleum supply, distribution and consumption that gave oil a crucial role in economic and everyday life. When we speak of a (European) pervasive petroculture, our focus is mainly on those processes that allowed oil to become part of many social practices. In our study, however, we limit the analysis on petroleum as fuel, as petrochemicals played only a subordinated role until the 1960s. Nonetheless, it must be said that the conditions for their later growth were also created with the refinery upgrade.

The idea of oil as “lifeblood”, as used in the OEEC report quoted above, is one such representation. This is where we add to the definition of petroculture, in that we suggest that a specific, localized “petroculture” emerged in the OEEC, or at least in its technical oil committee, which also

19 Will Steffen *et al.*, “The Anthropocene: Conceptual and Historical Perspectives”, *Phil. Trans. R. Soc. A*, n°369, 2011, 842–867, here 849–853.

20 Pfister, “The “1950s Syndrome” and the Transition From a Slow-Going to a Rapid Loss of Global Sustainability”, in Frank Uekötter (ed.), *The Turning Points in Environmental History* (Pittsburgh: University of Pittsburgh Press, 2010), 90–117.

21 Richard Lane, “The American Anthropocene: Economic Scarcity and Growth During the Great Acceleration,” *Geoforum*, vol. 99, 2019, 11–21.

22 Ted Steinberg, “Can Karl Polanyi Explain the Anthropocene? The Commodification of Nature and the Great Acceleration,” *Geographical Review*, vol. 109, n°2, 2019, 265–270.

23 Schmelzer, *The Hegemony of Growth* (cf. note 17).

24 Odinn Melsted, Irene Pallua, “The Historical Transition from Coal to Hydrocarbons: Previous Explanations and the Need for an Integrative Perspective,” *Canadian Journal of History*, vol. 53, n°3, 2018, 395–422; Marten Boon, *Multinational Business and Transnational Regions: A Transnational Business History of Energy Transition in the Rhine Region, 1945–1973* (New York: Routledge, 2018).

25 Ross Barrett, Daniel Worden, “Introduction”, in Ross Barrett and Daniel Worden (eds.), *Oil Culture* (Minneapolis: University of Minnesota Press, 2014), xxiv. See also Imre Szeman, *On Petrocultures: Globalization, Culture, and Energy* (West Virginia University Press, 2019); Wilson Sheena, Szeman Imre, Carlson Adam, “On Petroculture: Or, Why We Need to Understand Oil to Understand Everything Else”, in Sheena Wilson, Adam Carlson and Imre Szeman (eds.), *Petrocultures: Oil, Politics, Culture* (McGill-Queen's Press-MQUP, 2017), 3–19.

26 Stephanie LeMenager, *Living Oil: Petroleum Culture in the American Century* (Oxford: Oxford University Press, 2014), 7. See also Huber, *Lifeblood* (cf. note 10).

contributed to giving oil such a dominant role. The emphasis on the ubiquity of petroleum in modern life and culture might give the impression that it determines all social and cultural relations, an agency possibly deriving from its physical properties. This is not our intention. On the contrary, we stress that the historical processes behind the rise of oil cannot be grasped by looking at the material aspects alone, but have to include the construction and reinforcement of relationships to petroleum that are inextricably technical, economic, political and cultural.

11 To explore these multiple dimensions, this article examines three entangled processes, which correspond with the three main chapters. The first process (Section 2) deals with the ERP as a means of modernization of the relatively small and outdated refining infrastructure. We elaborate on ERP funding that allowed for imports of large quantities of crude oil and refined products, and also examine how Western Europe was integrated into the global crude oil trade. The second process (Section 3) was political and cultural. Here we examine the coordinating role of the OEEC's Technical Oil Committee when faced with bottlenecks and the Suez Crisis, as well as, conversely, with a projected excess of refining capacity in the 1960s. The rationale of the ERP and the OEEC's technical committees was to promote economic growth by reducing operation costs based on novel energy carriers that provided larger amounts of energy for the same expenditure. The third process (Section 4) is concerned with the long lasting effects of the ascent of oil on the energy economy. Here we extend the perspective to the choices of energy consumers, as incumbent coal was largely – but not entirely – substituted with oil-based alternatives for transportation, residential and industrial uses. Thereby, existing petroleum dependencies were reinforced and new ones created, as petroleum pervaded into the energy sectors that had previously been dominated by coal.

12 In doing so, we consciously focus on the ERP and OEEC as forces that coordinated the postwar growth of oil. This does not mean that we are unaware of the many other actors involved in an

oil-based energy system, such as the oil industry, car manufacturers, policymakers or the military. A detailed analysis of those actors, however, is beyond the scope of this article. Our argumentation highlights the role of the ERP and OEEC in expanding oil infrastructures and institutions to promote and coordinate this expansion.

PERVASIVENESS THROUGH INFRASTRUCTURES: ENERGY INDUSTRIES AND THE ERP

We shall begin with the big picture. From the mid-19th C. to the late 1940s, Western European oil consumption grew continuously, but overall remained a relatively minor energy source. Even in the 1930s, when automobiles became more common, petroleum products only supplied about 10 % of total energy consumption.²⁷ With hardly any major crude oil fields in Western Europe, most oil was imported as refined products. There were a few refineries that were built in the 1930s, and the refinery industry was concentrated in Austria, Italy, the Netherlands, France, and the U.K. The latter three countries primarily processed crude oil from the colonies in North Africa, the Middle East and Asia.²⁸ In 1938, roughly 60 % of petroleum products were imported.²⁹ This number

²⁷ Astrid Kander et al., *Power to the People: Energy in Europe over the Last Five Centuries* (Princeton: Princeton University Press, 2013), 256–257.

²⁸ Walter M. Iber., *Die sowjetische Mineralölverwaltung in Österreich. Zur Vorgeschichte der OMV 1945–1955* (Innsbruck: Studienverlag, 2011); Carola Hein, “Oil Spaces: The Global Petroleumscape in the Rotterdam/the Hague Area”, *Journal of Urban History*, vol. 44, n°5, 2018, 887–929; Carola Hein, “‘Old Refineries Rarely Die’: Port City Refineries as Key Nodes in The Global Petroleumscape”, *Canadian Journal of History*, vol. 53, n°3, 2018, 450–479; Daniele Pozzi, “The Natural Gas Industry in Italy Since Autarky Until Eni’s Hegemony (1935–1965)”, in Alain Beltran (ed.), *A Comparative History of National Oil Companies* (Brussels: Peter Lang, 2010), 233–263; Alexander Melamid, “Geographical Distribution of Petroleum Refining Capacities: A Study of the European Refining Program”, *Economic Geography*, vol. 31, n°2, 1955, 168–178; Marie Williams, “Choices in Oil Refining: The Case of Bp 1900–60”, *Business History*, vol. 26, n°3, 1984, 307–328.

²⁹ E. Groen, “The Significance of the Marshall Plan for the Petroleum Industry”, in *Third World Petroleum Congress, The Hague 1951, Proceedings. Section X: Economics and Statistics, Documentation, Education and Training, Legislation*, (Leiden: E. J. Brill, 1951), 58–96, here 61–62.

increased to 76 % in 1947, due to effects of WWII, such as destroyed refineries, storage tanks and rail tank cars, whose repair was hampered by the ubiquitous lack of steel, iron and tin.³⁰ Overall, coal remained the main fuel of Europe until the 1940s. In the 1920s and 1930s, coal is estimated to have supplied around 92 and 89 % of total primary energy consumption in England and Germany respectively. While those were countries with substantial domestic reserves, coal also accounted for 79 % in France in the 1920s and 73% in the 1930s.³¹

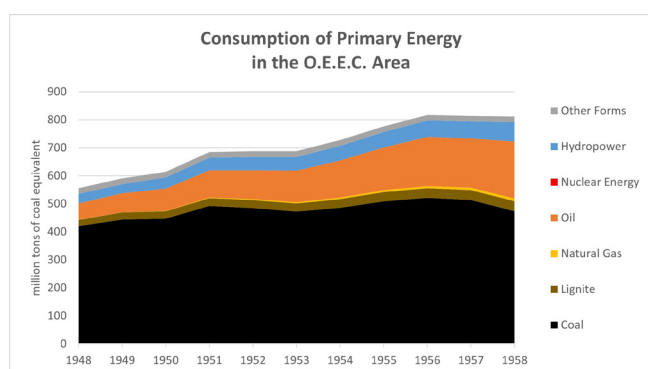


Figure 1: Inland Consumption of Primary Energy in the OEEC Area, 1948-1958. Source: OEEC, *Towards A New Energy Pattern in Europe. Report Prepared by the Energy Advisory Commission Under the Chairmanship of Austin Robinson* (Paris: OECD, 1960), Table 2.

14 The pre-eminence of coal, the restricted role of oil products, and the fact that they were mostly imported: this all changed progressively after 1947. Indeed, between 1948 and 1958, the consumption of oil products more than tripled, from 58 to 203 million tons of coal equivalent (mtce), whereas hard coal and lignite consumption only increased slightly from 443 to 509 million mtce but decreased thereafter (see Figure 1). At the same time, Western European oil refinery capacities grew ninefold, from 41.2 to 380.3 million t, and almost doubled in the following five years, thereby enabling the expansion of petroleum consumption.³²

³⁰ Painter, “Marshall Plan and Oil”, 160 (cf. note 12).

³¹ National statistics available at *Energy History*. Url: www.energyhistory.org.

³² Willem Molle, Egbert Wever, *Oil Refineries and Petrochemical Industries in Western Europe: Buoyant Past, Uncertain Future* (Aldershot, Brookfield: Gower, 1984), 56, 165-169.

Direct Impacts of the ERP

When evaluating the effects of the ERP, it is 15 important to distinguish direct and indirect effects, as Painter and Kapstein suggest. The *direct* influence of the ERP consisted in financing the import of petroleum products. To enable the economic growth envisioned in the first report issued by the CEEC in September 1947, the so-called “Paris Report”, various challenges had to be addressed. Those concerned both the supply of essential goods (e.g. raw materials, production equipment) and the “dollar deficit” of the participating countries, in other words the negative balance of exchange with the U.S.³³ Fuel was crucial to economic growth, but the production of coal suffered from wartime destruction and a lack of labour force, while the Cold War hampered trade with Central and Eastern European coal exporters.³⁴ The CEEC projected that coal outputs would recover their 1938 level by 1950, and slightly increase the following year.³⁵ However, it was clear that this recovery would not be sufficient to meet the projected growth in demand. Imports of coal would be needed as well as greater use of oil. The Paris Report estimated that oil requirements would grow 59 % by 1951 (68.7 million t) compared to 1947 (43.1 million t), and 106 % compared to 1938 (33.3 million t).³⁶

The U.S. authorities deemed the goals laid out 16 in the Paris Report too optimistic. In addition, they feared ERP shipments would cause shortages in the U.S.³⁷ According to Kapstein, the

³³ CEEC, *Volume I, General Report*, 6-8 (cf. note 4).

³⁴ On the coal crisis, see e.g., Kapstein, *The Insecure Alliance*, 19-46 (cf. note 12); Robert Groß, “Kalorien, Kilowatt und Kreditprogramme. Das European Recovery Program (ERP) als Wendepunkt sozio-naturaler Verhältnisse in Österreich?” in Ernst Langthaler and Robert Groß (eds.), *Zeitgeschichte*, Special Issue *Zeitgeschichte und Umweltgeschichte*, vol. 50, n°2, 193-215.

³⁵ Committee of European Economic Co-Operation (CEEC), *Volume II, Technical Reports* (London: His Majesty’s Stationary Office, 1947), 111.

³⁶ *Ibid.*, 138-139.

³⁷ Thomas Robertson, “Conservation after World War II: The Truman Administration, Foreign Aid, and “The “Greatest Good””, in Karl Boyd Brooks (ed.), *The Environmental Legacy of Harry S. Truman* (Kirksville, Mo.: Truman State University Press, 2009), 32-47, here 35. National Archives at College Park, MD. Krug J. A., National Resources and Foreign Aid

U.S. had become a net importer of oil for the first time in 1947.³⁸ Nevertheless, oil ended up constituting one of the major subsidies of the ERP. Concerns of domestic shortage and rising prices for end users at home were taken up in the Foreign Assistance Act of 1948 by stipulating that crude oil and petroleum products had to originate “to the maximum extent practicable” from sources outside the US. As large Middle East oil fields were developed, shortages were off the table. However, the same clause helped to protect the profit margins of the US oil companies, especially of smaller domestic producers, against imports of cheap crude oil from the Middle East.³⁹ As Kapstein argues, the U.S. pursued a “hemispheric policy”. Europe would be supplied from the Eastern Hemisphere (e.g. the Middle East), and the U.S. from the American continent.⁴⁰ In the end, the ERP directly financed about a quarter of the oil imported in OEEC countries between April 1948 and December 1951.⁴¹ This amounted to 1.2 billion dollars, about 10 % of total ERP aid; less than, for instance, food/feed/fertilizers or machines and vehicles, but more than for coal.⁴²

Indirect influences of the ERP

17 The ERP also influenced patterns of oil consumption in Western Europe in *indirect* ways, by helping to build oil infrastructure, in particular refineries. Indeed, the countries of the CEEC/

Report, October 9, 1947, p. 5, in: Krug Committee File, Record Group 59, Historical Collection Relating to the Formulation of the European Recovery Program 1947-1950; National Archives at College Park, College Park, MD. Paris Report: Appraisal of Paris Report and Justification of Magnitude of Aid Recommended, Record Group 59, Historical Collection Relating to the Formulation of the European Recovery Program 1947-1950.

³⁸ Kapstein, *The Insecure Alliance*, 61 (cf. note 12).

³⁹ Painter, “The Marshall Plan and Oil”, 165-167 (cf. note 12).

⁴⁰ Kapstein, *The Insecure Alliance*, 68-70 (cf. note 12).

⁴¹ “ECA and MSA Relations with International Oil Companies Concerning Petroleum Prices”, in *Monopoly and cartels* (Washington: United States Government Printing Office, 1952), 140, 150-152. When Painter writes that the ECA financed “[o]ver half (56 per cent) of the oil supplied [...] by US companies”, one needs to pay attention to the qualifier “by US companies” (Painter, “The Marshall Plan and Oil”, 164 (cf. note 12)).

⁴² Painter, “The Marshall Plan and Oil”, 165 (cf. note 12).

OEEC aspired to build up refining capacities, arguing that dollar expenditures per imported energy unit would be lower if crude oil was imported instead of petroleum products, which would thus help to alleviate the dollar shortage. The U.S. authorities were split on the question. On the one hand, the lack of dollars meant that U.S. producers might face difficulties exporting to Europe. Oil companies operating in the Middle East would look to the U.S. as an outlet for their cheap oil, potentially harming domestic production. On the other hand, increased refining in Europe would harm the U.S. oil companies by helping their European-owned competitors.⁴³ Finally, the ECA drastically restricted the financing of refinery expansion in Western Europe.

18 The Paris Report of September 1947 had planned for an investment of US \$588.2 million in oil equipment bought in dollars and a report on refinery expansion adopted by the OEEC in October 1949 estimated total expenditures equivalent to US \$1 billion.⁴⁴ The sums furnished by the ECA pale in comparison. Between April 1948 and December 1951, the ECA provided only US \$24 million to increase refining capacity.⁴⁵ After the official end of the ERP, the Mutual Security Agency (MSA) replaced the ECA and continued to release funds to previously approved projects, bringing the total ERP-related funding to a programmed US \$36 million by April 1953, of which only US \$23.7 million had actually been spent by that time.⁴⁶

19 Even though the ECA declined to finance European refinery expansion, the ERP still played an indirect role in this evolution. Painter points out that several OEEC countries used their counterpart funds to increase refining capacity. The ERP “counterparts” were the equivalent in local currency of the dollar value of the goods shipped by the US government, paid by the importers and

⁴³ Painter, “Oil and the Marshall Plan”, 372-375 (cf. note 12).

⁴⁴ Groen, “The Significance of the Marshall Plan”, 80 (cf. note 29).

⁴⁵ Painter, “The Marshall Plan and Oil”, 168 (cf. note 12).

⁴⁶ Mutual Security Agency (MSA), *European Industrial Projects: July 21, 1953* (Washington, D.C.: MSA Industry Division, Statistics and Report Division, 1953), 14.

GROSS, MELSTED, CHACHEREAU | CREATING THE CONDITIONS FOR WESTERN EUROPEAN PETROCULTURE

Country	ERP total (Millions US \$)	Petro aid total (Millions US \$)	Petro aid as % of total ERP	Products as % of petro aid	ERP aid refineries (Millions US \$)	Refining Capacity (1000 t)		
						Pre-war average	1947	1 July 1949 – 30 June 1950
France	2451,7	380,9	15,5	29,6	17,5	6255	5968	12025
U.K.	2838,1	331,1	11,7	88,5	9,7	2800	3384	7787
Italy	1349,1	143,6	10,6	32,8	8,1	1007	1232	3372
Benelux	1427,6	124,9	8,7	30,7		1002	1438	4369
Sweden	118,5	67,2	56,7	82,0		51	525	608
Denmark	258,9	56,2	21,7	100,0		40	31	33
W. Ger.	1298,5	54,6	4,2	23,4	0,7	2042	658	2213
Norway	237,8	36,1	15,2	98,8		10		
Greece	527,4	20,7	3,9	100,0				
Ireland	147,4	13,3	9,0	100,0				
Trieste	354,1	8,7	2,5	1,2				125
Portugal	51,2	8,6	16,8	61,9		200	267	295
Austria	561,4	3,6	0,6	100,0			350	513
Turkey	155,5	5,0	3,2	100,0				10
Iceland	23,8	1,4	5,9	100,0				
W. Europe	11801,0	1255,9	10,6	63,7	36,0	13407	13853	31350

Table 1: ERP aid, paid shipments of crude oil and petroleum products under the framework of the ERP, ERP funding for refineries and the evolution of refinery capacity. All data per country, 1948 to 1951. Sources: Painter, “The Marshall Plan and Oil”, 166 (cf. note 12); Groen, “The Significance of the Marshall Plan”, 93 (cf. note 29); MSA, *European Industrial Projects* (cf. note 46).

held at special accounts in the country’s central bank.⁴⁷ By April 1953, the use of counterpart funds for refineries amounted to US \$23 million, about as much as ECA/MSA funding.⁴⁸ Table 1 gives a detailed image of ERP aid, the share for petro-aid (i.e. funding to import crude oil and petroleum products), aid to enlarge refineries, and finally refinery capacity development from 1948 to 1950.

- 20 France, the U.K., Italy, and the Benelux region are similar in that they received the most ERP aid and also recorded the highest petro-aid distributions, which were between 8 and 15 % of total ERP aid received. Germany differs in that regard; although it received large sums from the ERP, the share of petro-aid was significantly lower at 4.2 %. All of these countries already had refining capacity in the interwar period. With the exception of the U.K., ERP dollars were primarily used to import crude oil. In the U.K., almost 90 % of imports were refined petroleum products. Given that the U.K. drew considerable portions from the Abadan and Haifa refineries, it is likely that the British utilized the ERP to compensate for their loss.⁴⁹

⁴⁷ Armin Grünbacher, “Cold-War Economics: The Use of Marshall Plan Counterpart Funds in Germany, 1948–1960”, *Central European History*, vol. 45, 2012, 697–716.

⁴⁸ MSA, “European Industrial Projects”, 14 (cf. note 46).

⁴⁹ “Foreign Relations of the United States: Effects of Closing Down the Iranian Oil Industry”, Office of the

In countries with little or no refining capacity, e.g., Sweden, Denmark, Iceland, Ireland, Turkey and Greece, the share of refined petroleum product imports approached 100 %. Austria represented a special case. The country was in possession of crude oil fields and refineries; however, these were located in parts of the country occupied by the Soviets, which considered Austria’s refineries and oil fields to be their property until the state treaty of 1955. The Soviets sold refined products to both COMECON and Austrian customers and considered profits as war reparations. Austria therefore received a low share of petro-aid, as 45 % of deliveries consisted of so-called hard petroleum products, e.g., petroleum coke used to replace coal in steel production plants.⁵⁰

Four countries received ECA and MSA funding to expand their refinery capacity. Eight refineries in France accounted for 48 % of this aid (17.5 million), two refineries in the U.K. for 27 % (9.7 million), four Italian refineries for 23 % (8.1 million), and one refinery in West Germany for 2 % (0.7 million). France benefited by far the most from participation in the ERP. Of

Historian, history.state.gov, 11/07/ 1951. **Url:** <https://history.state.gov/historicaldocuments/frus1951-54Iran/d39> (accessed 18/11/2022).

⁵⁰ Walter M. Iber, “Erdöl statt Reparationen. Die Sowjetische Mineralölverwaltung (SMV) in Österreich 1945–1955,” *Vierteljahrshefte für Zeitgeschichte*, vol. 57, n°4, 2009, 571–605.

13 refineries, eight received ERP funds. Around 42 % of these funds went to refineries owned by a French company (itself largely controlled by the State), and around 23 % each to refineries controlled by U.K. and U.S. companies.⁵¹ This was in stark contrast to the British refining industry. In 1947, 13 refineries were in operation. Two of them were supported by the ERP. One was controlled by the Dutch Shell Refining & Marketing Co., the other by the Anglo-Iranian Oil Co.⁵² While German refineries benefited less from ERP funds, the Allied politics nevertheless mattered to a great degree. In the “Bizonie”, the military administration of the US and the U.K. implemented a scheme in August 1947 to modernize refineries near Hamburg and to convert coal hydrogenation plants, that had been built by the Nazi regime to produce synthetic fuel, into oil refineries. This reconstruction of refining capacity also explains how the ERP petro-aid for Germany could finance mostly crude oil, rather than refined products.⁵³

23 France, which received the largest funds, adapted the outdated infrastructure to market needs. Motorization had led to a demand shift from light products, e.g., kerosene for lighting and as aviation fuel, to heavier fractions, such as gasoline and diesel. Technically, this was made possible by new cracking processes, which increased the proportion of middle distillates. Until the 1930s, cracking was carried out exclusively on the principle of distillation. In the interwar period, catalytic cracking was brought to industrial scale.⁵⁴ The process allowed refineries to yield higher octane ratings in motor

gasoline and a broader product range.⁵⁵ However, catalytic cracking was used only in U.S. refineries. By using ERP-funds, France installed catalytic cracking in five refineries and became a major exporter of refined petroleum products. In 1952, 44 % went to Algeria and about a quarter to Germany and Switzerland. Export shares to Western Europe increased enormously after Algeria’s independence in 1962 and with the construction of transnational pipelines, while imports of petroleum products from the U.S. approached almost zero.⁵⁶ In that sense, even if the ERP refinery expansion program focused only on a few countries, it affected Western Europe more broadly in that it provided fuels for the whole region.

INSTITUTIONAL PETROCULTURE: THE OEEC TECHNICAL OIL COMMITTEE

This section deals with the OEEC as a “super-structure” that enabled the multilateral cooperation on oil issues in the Western hemisphere beyond the ERP years. First, the organizational set up is discussed, followed by an analysis of the role of the Technical Oil Committee (TOC) in coordinating responses to bottlenecks. 24

The Organizational Structure of the Technical Oil Committee

The OEEC council was made up of horizontal and vertical committees. The horizontal committees dealt with political economy issues, while the vertical committees were organized around core resources and commodities, such as iron and steel, machinery, textiles, chemical products, non-ferrous metals, timber, pulp and paper, food and agriculture, maritime and inland transport, electricity, coal, and oil. Although their activities were not associated with high level European policy in the public perception, they “formed the core of the OEEC’s economic coordinating efforts”, as Leimgruber and Schmelzer put it.⁵⁷ Staffed with technicians, civil servants 25

⁵¹ Groß et al., “How the ERP”, 268–284 (cf. note 8).

⁵² MSA, “European Industrial Projects”, 41 (cf. note 46).

⁵³ Rainer Karlsch, Raymond G. Stokes, *Faktor Öl: Die Mineralölwirtschaft in Deutschland 1859–1974* (München: C.H. Beck, 2003), 251–252; Boon, *Multinational Business and Transnational Regions*, 38–49 (cf. note 24).

⁵⁴ Robert Ayres U., Ike Ezekoye, “Competition and Complementarity in Diffusion: The Case of Octane”, in Nebojsa Nakićenović and Arnulf Grübler (eds.), *Diffusion of Technologies and Social Behavior* (Berlin: Springer, 1991) 433–450, here 439; Molle Willem, Wever Egbert, “Oil Refineries and Petrochemical Industries in Europe” *GeoJournal*, vol. 9, n°4, 1984, 421–430.

⁵⁵ Alexander Klose, Benjamin Steininger, *Erdöl: ein Atlas der Petromoderne* (Berlin: Matthes & Seitz, 2020), 214–220.

⁵⁶ Groß et al., “How the ERP”, 268–284 (cf. note 8).

⁵⁷ Leimgruber, Schmelzer, “From the Marshall Plan to Global Governance”, 31 (cf. note 6).

and industrialists, the Technical Committees provided a platform for knowledge exchange, the pan-European harmonization of national outlooks and policies in the areas of industrial development as well as coordinated transnational resource trade and a common energy policy.⁵⁸ After the ERP ended in 1952, the OEEC intensified its coordinative activities, and served as a specialized and largely autonomous intermediary organization that operated at various hierarchical levels without having to account for their actions to the electorate, elected politicians or representatives of the sector they regulated.⁵⁹

26 As one of the most influential transnational organizations of its time, the OEEC sought to spread the paradigm of economic growth, and petroleum products were to be the fuel for this economic growth. This linkage between economic growth and a pervasive petroleum use constituted a specific “petroculture” in the sense of an arrangement of representations and meanings linked to oil in the TOC. In 1951, the OEEC had for the first time agreed on explicit economic growth targets. These were set at 5 % GDP growth/year for a five-year period, whereby the economy was expected to expand by a total of 25 % by 1956. It was expected that only such an expansion could ensure that the OEEC area would not face economic difficulties after the expiration of the financial assistance provided by the ERP, and guarantee social progress.⁶⁰ Sacha Gueronik, Head of Technical Services at the OEEC Secretariat, however, admitted that these figures had to be viewed in a differentiated manner. It could be assumed that industrial output would grow by 30 to 35 % by 1956; agriculture, however, only by 15 %.⁶¹ With respect to Western European energy systems, the implemented growth paradigm created a dilemma, as the continent simply lacked the energy resources to fuel this growth.⁶²

⁵⁸ Ibid., 32-33.

⁵⁹ Id.

⁶⁰ OECD Archive, Paris. OEEC, Oil Committee, “Minutes of the 60th Meeting”, 18 December 1951, 3.

⁶¹ Ibid., 4.

⁶² OEEC, *Some Aspects of the European Energy Problem. Suggestions for Collective Action* (Paris: OEEC Report 1955), 14.

Thus, one of the core functions of the TOC was to manage scarcity by means of international cooperation.

How the TOC Dealt with Bottlenecks

The expansion of the petroleum-based energy system in Western Europe funded by the ERP resulted in tanker capacity shortages. In consequence, the study of bottlenecks became one of the core tasks of the OEEC Energy Committee and the TOC. Roughly one fifth of all crude oil imports to Western Europe still came from the Americas in the early 1950s.⁶³ When the increased year-round shipping of crude oil across the Atlantic overlapped with the seasonal transport of heating oil along the U.S. coasts, lack of tanker capacity caused rising freight costs for the Western European refinery industries. The OEEC counteracted this side effect with coordinated tanker building and tank farm projects. After the U.S. entered the Korean War in 1951, a steel shortage hampered the construction of storage and transport capacity, leading to a productivity push in the steel sector, with national economies channelling considerable ERP counterpart funds to the modernization of coal supply and steel production.⁶⁴ This allowed overcoming steel shortages, expanding the petroleum-based energy system⁶⁵, the proportions of human and animal work to be replaced by more efficient internal combustion engines,⁶⁶ and national economies to grow.

The importance of the TOC grew as petroleum became a more and more central source of energy for national economies during the 1950s.⁶⁷ Within this upward trend, the 1956 Suez Crisis became a kind of “test case” for multilateral cooperation in the Western European petroleum

⁶³ OECD Archive, Paris. OEEC, Oil Committee, “Minutes of the 60th Meeting”, 18 December 1951, 6-8.

⁶⁴ Milward, *The Reconstruction*, 109 (cf. note 7).

⁶⁵ OEEC, *Some Aspects of the European Energy Problem. Suggestions for Collective Action*, 14-15 (cf. note 62).

⁶⁶ OEEC, *Second Report on Co-Ordination of Oil Refinery Expansion in the OEEC Countries* (Paris: OEEC, 1951); OEEC, *The Mechanization of Small Farms in European Countries: Report of the Agricultural Machinery Sub-Committee of the OEEC* (Paris: OEEC, 1951).

⁶⁷ Türk, “The Oil Crisis”, 211 (cf. note 14).

economy.⁶⁸ The crisis hit the refinery industry in Western Europe at a time when it imported nearly 70 % of its crude oil from the Middle East, and roughly 70 % of these deliveries via the Suez Canal.⁶⁹ After Egyptian President Gamal Abdel Nasser closed the canal in November 1956, Western Europe lost out on roughly 7 million t of crude oil a month. Two thirds of Western Europe's total supply now had to be transported either via the Cape of Good Hope or across the Atlantic. With crude oil now traveling much longer, a massive shortage of tanker capacity was soon on the horizon, which translated into temporary crude oil price surges of up to 350 %.⁷⁰

29 Already in September 1956, the national envoys to the TOC had agreed to intensify coordination, avoid unilateral action, increase the mutual exchange of information and turn the committee into a body that would manage the distribution of crude oil supplies, if shortages were to occur.⁷¹ To do so, it was necessary for individual countries to deliver detailed information about the state of their industries and the size of national oil reserves to be distributed. As the British chairman said, this required a fair amount of trust, since the governments were sharing strategically sensitive information with each other and the U.S. administration.⁷² Country representatives agreed in November 1956 to recommend the procedure to their governments and curb petroleum consumption by shifting to coal, natural gas or electricity. In parallel, the TOC formed the OEEC Petroleum Emergency Group (OPEG) that acted as the counterpart to the U.S. Middle East Emergency Committee (MEEC).⁷³ That way, Western Europe's largest refiners were brought

together with U.S. oil corporations to negotiate the scope and amount of crude oil deliveries.⁷⁴

It soon became apparent that the situation in the 30 various countries was very different. In Germany, for example, petroleum products accounted for less than 10 % of total energy consumption, whereas in Greece they accounted for more than 80 %. Reducing consumption would therefore show very different effects. Thus, the principle of "allocation of available supplies between member countries" was applied, "so that the burden of the shortage would be shared on a fair and equitable basis."⁷⁵ In retrospect, the TOC rated this strategy a complete success. The TOC developed a mechanism that allowed 200,000 t of crude oil to be distributed every ten days, according to a distribution key jointly agreed by the member countries. Admittedly, a whole series of national differences of opinion had to be resolved in the course of allocation program. The amount turned out to be sufficient, not at least due to an exceptionally mild winter and economic activity leveling off.⁷⁶ Where shortages occurred, other oil suppliers stepped in, such as crude oil deliveries from COMECON to Germany, Austria, Italy and France.⁷⁷ Indirectly, therefore, the Suez Crisis also led to a revival of old trade links with Central and Eastern Europe. At the same time, the TOC decided for the first time to explicitly study natural gas, which until then had been rather neglected in the OEEC.⁷⁸

The links that the TOC established between 31 economic growth, fossil fuels and international coordination again came to the fore in the late 1950s. Initially, Western European refineries had primarily been built and enlarged on the coasts of the Mediterranean, Atlantic and North Sea. From there, the refined products were transported to consumers by rail or road. During the 1960s, this transportation mode was replaced

⁶⁸ OECD Archive, Paris. OEEC, Oil Committee, "Minutes of the 94th Meeting", 8 July 1957, 2.

⁶⁹ OEEC, *Europe's Need for Oil: Implications of the Suez Crisis* (Paris: OEEC Report 1958), 11-13.

⁷⁰ *Ibid.*, 25.

⁷¹ OECD Archive, Paris. OEEC, Oil Committee, "Minutes of the 77th session", 1 October 1956, 13.

⁷² OECD Archive, Paris. OEEC, Oil Committee, "Minutes of the 78th session", 20 October 1956, 3.

⁷³ Türk, "The Oil Crisis", 211 (cf. note 14).

⁷⁴ OECD Archive, Paris. OEEC, Oil Committee, "Minutes of the 82nd session", 15 December 1956, 5.

⁷⁵ OEEC, *Europe's Need*, 36 (cf. note 69).

⁷⁶ *Ibid.*, 33.

⁷⁷ *Ibid.*, 49-79.

⁷⁸ OECD Archive, Paris. OEEC, Oil Committee, Record of the 92nd session, 2 and 3 May 1957, 6.

by pipelines that allowed to transport crude oil and semi-refined petroleum products to urban agglomerations and industrial clusters and process them in proximity to consumer centers.⁷⁹

The plans to build transnational pipelines, such as the Rotterdam-Rhine-Pipeline (opened 1960), the South European Pipeline (1962) or the Central European Line (1966) included the construction of considerable refinery capacity located close to consumers, in Germany, Switzerland, Austria, France and Belgium.⁸⁰

32 Even though the pipelines were only realized over the course of the 1960s, it already became clear in 1958 that if all plans were implemented, a considerable surplus would be the result. Part of this surplus could be exported, while another part could be sold to novel outlets. At the same time, the TOC surveys showed that Western Europe would have to import roughly 16 million t of refined products in 1960, as not all products could be produced in Western Europe and new countries, e.g., the USSR, entered the market and provided cheaper products. The TOC could not stop such a development, but it could prepare the OEEC members for possible scenarios: If all refineries were operating at 90 % capacity, the surplus would be 25 million t, and a massive price drop would follow. If refineries were to reduce their production to 70-80 % of their maximal capacity, the surplus would be acceptable. In the medium term, however, the TOC argued that the OEEC region would have to boost overall economic growth and, by doing so, the consumption of refined products, otherwise the refinery industry would get into troubles.⁸¹ In such an assessment, it becomes clear how the OEEC's petroculture combined two of the

most influential paradigms of the second half of the 20th century: economic growth and pervasive oil use.

In sum, the described role of the OEEC and 33 of its TOC meant the emergence of a specific petroculture. This mattered because the TOC constituted an organization that allowed for the first time to coordinate national oil policies in peacetime. Until then, such cooperation had only occurred as temporary alliances during WWI and WWII.⁸² When it came to discussions of refining capacity, national delegates to TOC functioned as feedback mechanism to governments at home.⁸³ In the early 1960s, they distributed among Western Europe governments the idea that an envisioned further expansion of refining capacity was justifiable as long as national economies were on a course of economic growth.

MATERIAL PERVASIVE PETROCULTURE: CONSUMERS OPTING FOR OIL OVER COAL

With the expansion of infrastructure and institu- 34 tionalized petroculture, the ERP and OEEC helped the spread of oil in Western Europe. In this section, the decline of coal related to the rise of petroleum products will be examined through the lens of railroads and shipping, residential heating and industrial production. By doing so, we integrate the perspective of the largest consumers into our analysis, which is crucial for an understanding of the energy transition to oil.

As mentioned, oil played a minor role in the 35 Western European energy system into the 1940s, but from the late 1940s and until the 1970s rapidly replaced coal as the dominant fuel. The data presented in Figure 2 demonstrates the rapid decline of the relative importance of coal. The share of coal in primary energy consumption declined from

⁷⁹ Miriam A. Bader-Gassner, *Pipelineboom: Internationale Ölkonzerne Im Westdeutschen Wirtschaftswunder* (Baden-Baden: Nomos, 2014), 41-44.

⁸⁰ Willem Molle, Egbert Wever, "Oil Refineries and Petrochemical Industries in Europe" *GeoJournal*, vol. 9, n°4, 1984, 421-430, here 425-426; Bader-Gassner, *Pipelineboom*, 32-33 (cf. note 79); Marten Boon, *Multinational Business and Transnational Regions* (cf. note 24).

⁸¹ OECD Archive, Paris. Oil Committee, Report to the Executive Committee on the likely implications by 1960 of the Development of Crude Oil Refining Capacity in Member Countries, Paris, 1 July 1959, 4-6.

⁸² Phil Johnstone, Cairiona McLeish, "World Wars and the Age of Oil: Exploring Directionality in Deep Energy Transitions", *Energy Research & Social Science*, n°69, 2020, 101732.

⁸³ OECD Archive, Paris, Oil Committee, Report to the Executive Committee on the likely implications by 1960 of the Development of Crude Oil Refining Capacity in Member Countries, Paris, 1 July, 1959, 4-5.

over 80 % in 1950 to under 40 % in 1965, whereas the share of oil increased from 11% to 42 %. This change in the relative importance of coal and oil was linked to both new technologies and social practices, such as the increasing use of internal combustion engines in land transport, and to a decline of coal consumption. For the emergence of a European pervasive petroculture, both of these processes were necessary. While the ERP and TOC could change the circumstances decisively in favour of oil, it remained the decision of individual energy consumers to substitute coal with oil and thereby implement the transition.

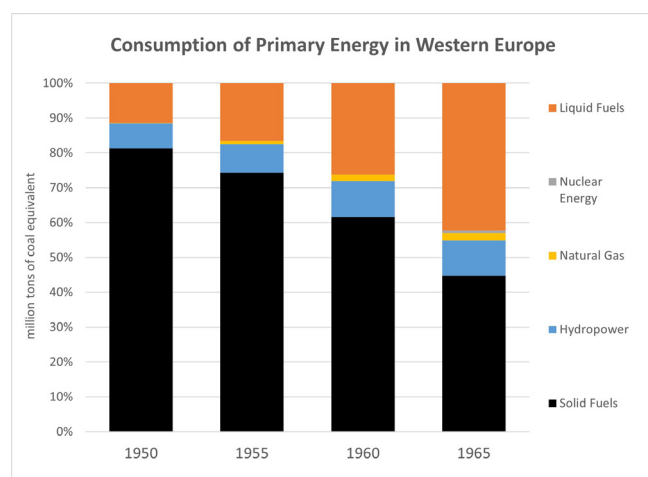


Figure 2: Consumption of Primary Energy in Western Europe. Source: Jensen Walter G., *Energy in Europe: 1945-1980* (London: Foulis, 1967), 117-121 (based on United Nations Statistics).

36 To be sure, the OEEC also had a coal committee. Although the OEEC coal committee has always been overshadowed by the European Coal and Steel Community (ECSC), its activities provide a good insight into the challenges faced by the coal sector since the increasing use of petroleum products. These can be summarized in three points: (1) competition from coal imports from both Poland and the US; (2) frequent structural difficulties like labour shortages and strikes but also stockpiling at mines due to limited demand; and (3) the competition from the alternative energy sources like hydropower, natural gas and fuel oil.⁸⁴ The coal committee therefore worked

both in accordance but also in opposition to the TOC. Whereas both committees expected that coal and oil would be essential fuels for the reconstruction and growth of European economies, the coal committee grew increasingly concerned with the competition from fuel oils in traditional coal markets.

In 1956, all OEEC committees concerned with energy published a joint study of *Europe's Growing Need for Energy*. Regarding the demand for coal products, the report stated that coal consumption would continue to increase, prompting coal mines to increase their output. The expansion of the coal sector had been aided by the distribution of ERP-counterpart funds in Austria, Germany, Italy, France and the Netherlands. According to Alan Milward, the governments of these countries invested US \$452 million or about one seventh of the total counterpart funds.⁸⁵ By 1956, due to the coal industries' prominence in the largest Western European national economies, there "was no doubt that given favourable conditions, coal could in time make a large contribution towards filling the energy gap."⁸⁶ Even though the oil committee vigorously promoted oil, there were no plans or expectations to close uneconomic coal mines or limit their capacity.⁸⁷ The situation changed with the European coal (stockpiling) crisis of 1957-1958. While Western European coal contributed to secure energy supplies during the Suez Crisis, the tide turned immediately after, into an oversupply crisis.⁸⁸

Petroleum Products in the Transport Sector

The transport sector was a central driver of the transition from coal to oil and a profiteer of refinery capacity expansion in Western Europe. At the same time, the transport sector was also high on the list of priorities in the ERP. In virtually

⁸⁴ OEEC, *The Coal Industry in Europe. Trends in Economic Sectors* (Paris: Organisation for European Economic Co-operation, 1954), 14-30.

⁸⁵ Milward, *The Reconstruction*, 109 (cf. note 7).

⁸⁶ OEEC, *Europe's Growing Needs of Energy: How Can They Be Met? A Report Prepared by a Group of Experts* (Paris: OEEC, 1956).

⁸⁷ OEEC, *The Coal Industry in Europe. The Situation in 1958 and 1959 and Outlook on Future Trends: A Study by the Coal Committee* (Paris: Organisation for European Economic Co-operation, 1960), 12-13.

⁸⁸ OEEC, *The Coal Industry in Europe*, 12 (cf. note 86).

every participating country, the internal combustion engine industry received generous loans. FIAT benefited in Italy. In France, it was SIMCA, Citroën and the agricultural machinery manufacturer CIMA.⁸⁹ In Austria, the main beneficiaries were suppliers to the automotive industry and the tractor manufacturer Steyr-Daimler-Puch⁹⁰, and in the U.K., the carmaker Ford.⁹¹ The expansion of capacity at these factories also boosted demand for refined petroleum products. As a side effect of the increased gasoline and kerosene production, the share of heavy fractions – diesel, distillate fuel and residual fuel oil – also increased and competed with predominant coal.

39 Not all uses of petroleum products, however, needed to replace pre-existing coal configurations. The widespread adoption of the internal combustion engine and the gas turbine, which became the dominant forms of transport by sea, land and air, did not replace a coal-fueled precursor directly. Still, the growing demand for refined gasoline and diesel products triggered a “widening” of the oil market. The necessity to also utilize the heavier fractions commercially provided an additional incentive to sell fuel oils to consumers like industries, heating, and thermal electricity production.⁹² This process of widening was also reflected in other Technical OEEC Committees, e.g., the Committee for Agriculture, Inland and Maritime Transport or the Machinery Committee, which provided a forum for technical experts to present best practice examples of utilizing these petroleum products.⁹³

⁸⁹ MSA, *European Industrial Projects: July 21, 1953* (Washington, D.C.: MSA Industry Division, Statistics and Report Division, 1953).

⁹⁰ Franz Tinhof, *Zehn Jahre ERP in Österreich 1948–1958. Wirtschaftshilfe im Dienste der Völkerverständigung* (Wien: Verlag der Österreichischen Staatsdruckerei, 1958), 71.

⁹¹ MSA, *European Industrial Projects* (cf. note 89).

⁹² Kander et al., *Power to the People*, 287–302 (cf. note 27).

⁹³ OEEC, *The Mechanization of Small Farms in European Countries: Report of the Agricultural Machinery Subcommittee of the OEEC* (Paris: OEEC, 1951); *Mineralöl: Zur Umstellung von Industriedampfkesseln von Kohle- auf Ölförderung. Vereinigung Industrielle Kraftwirtschaft* (Essen, 1956).

In many sectors that mattered for this “widening” 40 of the market, coal was the incumbent fuel, with pre-existing configurations of supply and consumption patterns as well as coal-based technological equipment. Those needed to be modified or replaced in order for industrial, commercial or residential consumers to shift to oil. Two of the early uses of fuel oil occurred in steam engines of ships and railways, which in the first half of the 20th C. were frequently retrofitted to burn oil instead of coal.

One of the best known use of oil-steam hybrids 41 is the conversion of the British Royal Navy from coal to oil steamers during the First World War.⁹⁴ From the 1950s, however, diesel engines became the primary form of marine propulsion and steam ships gradually disappeared from European ports and shipyards.⁹⁵ In 1952, for example, 1074 new ships were launched, of which only 48, or less than 1 % of the total tonnage were designed to use coal as fuel.⁹⁶ Among the largest of the oil-fueled ships were oil tankers, which increased substantially in size in the post-war years as shipping magnates like Aristotle Onassis transformed the international oil shipping business to ship ever greater quantities of crude oil, above all from the Middle East to Europe.⁹⁷ While the world’s oil tanker fleet had only consisted of ships under 100 t capacity in 1957, more than half of the world’s tanker tonnage was larger than 100 t by 1970.⁹⁸

In railway transportation, coal-fired steam loco- 42 motives were considered disadvantaged after WWII, because they needed to carry both coal and water. In order to increase their productivity, electric and diesel-powered forms of propulsion were discussed as part of the ERP. The OEEC

⁹⁴ Nuno Luís Madureira, “Oil in the Age of Steam,” *Journal of Global History*, vol. 5, n°1, 2010, 75–94.

⁹⁵ Melsted, Pallua, “The Historical Transition”, 410 (cf. note 24).

⁹⁶ UNECE, *Relationship between Coal and Black Oils in the West European Fuel Market* (Geneva: UN Economic Commission for Europe, 1954), 8.

⁹⁷ Gelina Harlaftis, “The Onassis Global Shipping Business, 1920s–1950s”, *The Business History Review*, vol. 88, no. 2, 2014, 241–71.

⁹⁸ Gilbert Jenkins, *Oil Economists’ Handbook* (London: Taylor & Francis, 1989), Table 18.2.

Inland Transport Committee organized several study tours for representatives of the Western European railroad industry to study the possibilities of a dieselization of railroads. After their return, the participants praised diesel-electric locomotives for their productivity, also because they did not require any complex infrastructure measures along the tracks.⁹⁹ In spite of this, the focus of the Western European railroad sector remained on electrification, which was a process that had been initiated well before the 1940s. Here the path dependencies on electric railways prevailed over dieselization arguments, also because it would have meant a potential standstill in the event of oil supply disruptions.¹⁰⁰

Shifts in Residential Heating

43 The shift from steam to combustion engines was often seen as a logical upgrade to newer and more efficient technology. In the case of the heating sector, however, the competition and pushback of the coal industry was particularly forceful, as this was one of the most valuable retail markets for coal. In the 1950s and 1960s, coal was largely replaced by oil and by natural gas in certain areas, e.g. Germany and France, where almost all households had been heated with coal into the 1950s. By then, coal-fired central heating systems had spread widely. Shifting to oil increased comfort with automatization, as it meant no more coal shovelling and less (visible) pollution. In addition, heating oil offered significant savings in costs in the late 1950s.¹⁰¹ This did not mean that coal suppliers and equipment producers let the valuable heating market go easily; in the late 1950s several improvements were made, such as mechanical devices to transport coal quickly and cleanly into storage bunkers and burners, or mechanical and less dusty solutions for ash disposal.¹⁰² Despite those efforts, households and commercial buildings overwhelmingly switched to oil.¹⁰³

One major reason for the shift was that oil 44 companies strategically targeted residential fuel markets by selling oil at prices that were competitive with coal.¹⁰⁴ Oil suppliers had a higher flexibility in pricing than coal mines.¹⁰⁵ Indeed, the pricing of refined oil products varied substantially. Gasoline had little competition from other fuels. Thus, it could be sold at higher prices. However, the markets for heavy and light fuel oils were shaped by the competition with coal.¹⁰⁶ This can be seen from a comparison of the retail prices per energy content for light fuel oil (distillate fuel), anthracite coal and coke for residential uses in West Germany and France, which correlated with the growing consumption of oil products instead of coal (Figure 3).

Oil for heating became considerably cheaper 45 per calorie in both France and Germany from 1957. In contrast, coal product prices remained stable. The increase of petroleum products on the Western European market due to the expansion of refinery capacities played a key role in the price development. As a result, fuel oil obtained a substantial price advantage in the heating fuel market. Falling energy costs for heating oil drove the pervasion of petroleum in Western European energy economies.

The Substitution of Coal in Industries

In the industrial sector, manufacturing plants 46 in need of process heat, e.g. dairy processing, could easily switch between fuels. Other industries like glass or metal production needed to be adapted or upgraded to oil-burning technologies. Similar to indoor heating, there was a clear shift from coal to oil across industrial sectors.¹⁰⁷ This transition was supported by the ERP, from which considerable sums were channelled to manufacturers of industrial oil burner technologies, as the Austrian example shows.¹⁰⁸ The OEEC fostered

⁹⁹ OEEC, *Railroads in the U.S.A. Report of a European Group of Experts* (Paris: OEEC, 1951).

¹⁰⁰ *Ibid.*, 31.

¹⁰¹ Melsted, Pallua, "The Historical Transition", 411-412 (cf. note 24).

¹⁰² OEEC, *The Coal Industry in Europe*, 90-91 (cf. note 86).

¹⁰³ *Ibid.*, 22.

¹⁰⁴ Alberto Cló, *Oil Economics and Policy* (New York: Springer, 2000), 88-91.

¹⁰⁵ OEEC, *The Coal Industry in Europe*, 22 (cf. note 86).

¹⁰⁶ Joy Dunkerley, Irving Hoch, "The Pricing of Transport Fuels", *Energy Policy*, vol 14, n°4, 1986, 307-317.

¹⁰⁷ OEEC, *The Coal Industry in Europe*, 28 (cf. note 86).

¹⁰⁸ Tinhof, *Zehn Jahre* (cf. note 90).

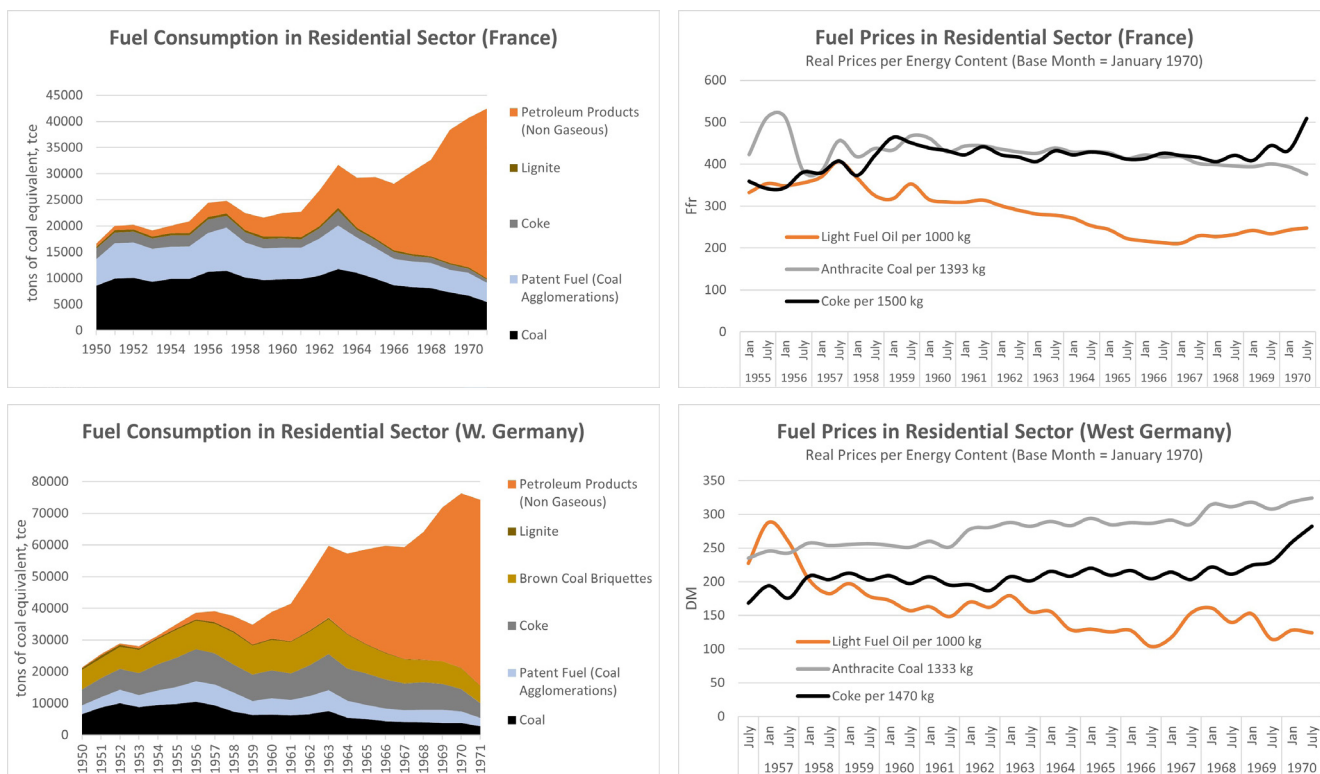


Figure 3: Consumption and Real Prices of Oil and Coal Products per Energy Content in France and West Germany (Residential Sector). Source: Statistical Office of the European Communities, *A Comparison of Fuel Prices 1955-1970* (Luxembourg: Eurostat, 1974).

the switch to petroleum products by providing a forum in which best practice examples of the energy transition in industrial companies were discussed.¹⁰⁹ Oil companies also aimed to capture industrial markets by selling especially fuel oil at prices competitive with coal.¹¹⁰

47 The economic incentive can again be traced in the exemplary comparison of industrial fuel prices per energy content in West Germany and France. In West Germany, the real cost of heavy (residual) fuel oil went considerably below that of soft coal and coke from 1957. In France, soft coal remained cheaper for industrial users until 1966. Then, heavy fuel oil became cheaper per energy content (Figure 4). As a result, coal was pushed aside from virtually all (lighter) industries. Given this economic framework conditions, even gasworks shifted from coal or coke to petroleum products and eventually to natural gas. The shift

from coal to hydrocarbons as a feedstock also occurred in chemical industries.¹¹¹

The exception to the rule were heavy industries like steel production and thermal electricity generation, which continued to rely on coal and coke. There was only limited competition in heavy industries, as they were optimized for coke as fuel. In thermal electricity generation, coal was partly replaced from the 1950s.¹¹² Particularly coal-importing countries like Denmark, France or Austria opted for fuel oil, whereas coal-producing countries continued to generate most thermal electricity from coal.¹¹³ After the oil price crises of the 1970s, however,

¹¹¹ UNECE, *Relationship between Coal and Black Oils*, 15-16 (cf. note 96); Ronald S. Wishart, "Industrial Energy in Transition: A Petrochemical Perspective," *Science*, vol. 199, n°4329, 1978, 614-618; Raymond Stokes, *Opting for Oil: The Political Economy of Technological Change in the West German Chemical Industry, 1945-1961* (Cambridge: Cambridge University Press, 1994).

¹¹² OEEC, *The Coal Industry in Europe*, 21 (cf. note 86).

¹¹³ UNECE, *Relationship between Coal and Black Oils*, 14 (cf. note 96).

¹⁰⁹ *Mineralöl: Zur Umstellung* (cf. note 93).

¹¹⁰ Melsted, Pallua, "The Historical Transition", 416-418 (cf. note 24); Joy Dunkerley, "The Future of Coal in Western Europe," *Resource Policy*, vol. 4, n°3, 1978, 151-159, 154.

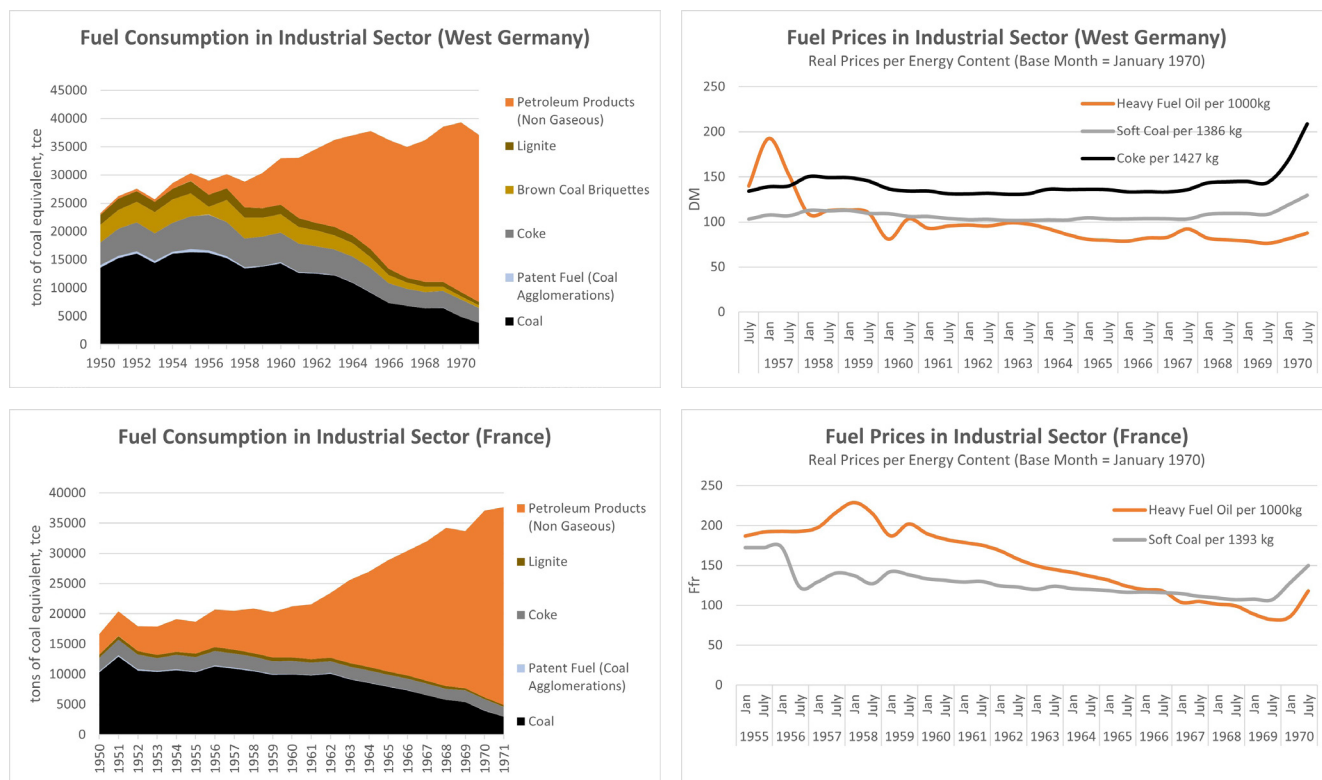


Figure 4: Consumption and Real Prices of Oil and Coal Products per Energy Content in France and West Germany (Industrial Sector). Source: Statistical Office of the European Communities, *A Comparison of Fuel Prices 1955-1970* (Luxembourg: Eurostat, 1974).

most oil power capacities shifted to alternative sources, including back to coal.¹¹⁴

49 In the end, both suppliers and consumers of energy helped created linkages that stabilized the oil configurations, fostering the use of oil for new applications like automobiles but also the substitution of established, coal-based energy uses with oil-based alternatives. As a result, the overall consumption of petroleum products in Western Europe increased from under 100 million ton per year in 1955 to over 600 million t/year by 1973.¹¹⁵ The conditions for this development were provided by the ERP, OEEC and TOC. The result was a European pervasive petroculture, which has managed to endure a variety of challenges – ranging from the 1970s oil price crises to pollution and climate concerns – and persist to this very day.

¹¹⁴ Melsted, Pallua, “The Historical Transition”, 418-420 (cf. note 24).

¹¹⁵ Jenkins, *Oil Economists’ Handbook*, Table 7.30 (cf. note 98).

CONCLUSIONS

50 How and why did oil become so pervasive in post-WWII Europe? The pervasiveness of oil cannot be grasped as the mere consequence of oil’s physical properties, such as its abundance and its liquid state. When put into the context of the political economy of its time, its pervasiveness came about through entangled and mutually reinforcing processes that were as much political and cultural as they were technical and economic. To study these processes, we turned the analysis on the ERP and the OEEC’s promotion of petroleum-based energy, such as dollar aid, technical assistance and particularly the European refinery expansion program.

51 Our investigation focused on three such processes. The first put Western Europe on a path towards greater oil use. The ERP influenced this in direct and indirect ways. Its major direct influence resided in financing one fourth of the oil imports to Western Europe between April 1948 and December 1951. More indirectly, it helped

to modernize existing refineries and to build new ones to allow to process crude oil from the Middle East. While the ERP's financial contribution to the refinery expansion remained limited, and while its importance varied from country to country, the program mattered for the building of the necessary infrastructure. French refineries, for instance, which benefited the most from the ERP, installed catalytic cracking facilities and became major suppliers of petroleum products to other European countries. In addition, by channelling ERP funding to the combustion engine industry, a larger market for petroleum products was created during the reconstruction of Western Europe.

52 The second process we discussed was the growing cooperation between Western European countries brought about by the ERP through the foundation of the OEEC. The organization's technical committees, particularly the TOC, promoted economic growth based on an increase of energy consumption that was mainly to be fueled by oil. This specific link between growth and oil constituted an institutional petroculture that repeatedly mattered. For instance, in 1956, the technical oil committee's coordination helped to face the Suez Crisis. By avoiding a disruption of the growth of oil consumption, it contributed to keeping Europe on a path of an increasing pervasiveness of petroleum.

53 The third process consisted of consumers choosing to burn more oil. In some cases, they did so by relying on technologies where oil had little or no competition, e.g., through the use of motorized land transport by trucks, motor cars and motorcycles. In other cases, end-users opted to substitute coal with oil, for instance in maritime transport, residential heating, thermal electricity production and industrial applications. That way, petroleum could penetrate previously coal-dominated sectors. Focusing on the factors of such decisions to substitute coal might suggest that oil was mainly chosen because it was cheaper, offered advantages for the control of combustion and reduced visible pollution. Our study, however, put these factors in their wider political economy context.

54 That way, the entanglement and mutually reinforcing character of the three processes become clear. The initial supply of oil by the ERP and the expansion of refinery capacity made it a competitive alternative to coal. The institutional petroculture of the OEEC's technical committees allowed for technical exchange among the members countries and for cooperative management of scarcities and bottlenecks during the period under investigation. As for the matter of price, the increased output of refineries implied a greater amount of heavy oils, which companies started to market aggressively to compete with coal in space heating and industrial uses. In the 1950s, the resulting growth in demand changed the calculations of oil companies with regard to transport and refining, leading to the construction of pipelines and inland refineries, to the point that surplus and ensuing issues of rentability were feared. To address this fear, the TOC responded characteristically by advocating for more economic growth, which meant further increasing the use of oil products.

55 In sum, our examination of the ERP and the transition from coal to oil shows that while the ERP was designed to secure democracy, peace, and economic growth, it created the conditions for a transition towards petroleum products, which pervaded all aspects of economic life. This pervasiveness not only increased productivity markedly. It created new path dependencies by linking virtually all spheres of life to flows of petroleum products and Western Europe as a macro-region to oil exporting regions all over the world. National governments and the OEEC first became aware of the detrimental side effects of this energy dependency during the Suez Crisis but have not been able to solve this dilemma to this day. The same applies to greenhouse gas emissions, another unintended side effect of the pervasiveness of oil and other fossil fuels in our everyday life. Both the current geopolitical energy crisis and the looming climate catastrophe can, therefore, in many ways be traced back to the attempts to escape the energy crisis of the late 1940s by the creation of a Western European pervasive petroculture.

Bibliography

Ayres Robert U., Ezekoye Ike

“Competition and Complementarity in Diffusion: The Case of Octane”, in Nebojsa Nakićenović and Arnulf Grübler (eds.), *Diffusion of Technologies and Social Behavior* (Berlin: Springer, 1991) 433–450.

Bader-Gassner Miriam A.

Pipelineboom: Internationale Ölkonzerne Im Westdeutschen Wirtschaftswunder (Baden-Baden: Nomos, 2014).

Ballande H. M.

“Search for Petroleum in France (And Its Overseas Territories)”, *World Petroleum*, vol. 21, n°2, 1950, 32–35.

Barrett Ross, Worden Daniel

“Introduction”, in Ross Barrett and Daniel Worden (eds.), *Oil Culture* (Minneapolis: University of Minnesota Press, 2014).

Boon Marten

Multinational Business and Transnational Regions: A Transnational Business History of Energy Transition in the Rhine Region, 1945–1973 (New York: Routledge, 2018).

Brázdil Rudolf et al.

“The Central European Drought of 1947. Causes and Consequences, With Particular Reference to the Czech Lands”, *Climate Research*, vol. 70, n°2–3, 2016, 161–178.

Cantoni Roberto

“Debates at NATO and the EEC in Response to the Soviet ‘Oil Offensive’ in the Early 1960s”, in Jeronim Perović (ed.), *Cold War Energy: A Transnational History of Soviet Oil and Gas* (Cham: Palgrave Macmillan, 2017), 131–161.

Committee of European Economic Co-Operation (CEEC)

Volume I, General Reports (London: His Majesty’s Stationary Office, 1947).

Volume II, Technical Reports (London: His Majesty’s Stationary Office, 1947).

Clô Alberto

Oil Economics and Policy (New York: Springer, 2000)

Dunkerley Joy

“The Future of Coal in Western Europe,” *Resource Policy*, vol. 4, n°3, 1978, 151–159.

Dunkerley Joy, Hoch Irving

“The Pricing of Transport Fuels”, *Energy Policy*, vol. 14, n°4, 1986, 307–317.

“ECA and MSA Relations with International Oil Companies Concerning Petroleum Prices”, in *Monopoly and Cartels. Hearings Before a Subcommittee of the Select Committee on Small Business, United States Senate, Eighty-Second Congress, Second Session* (Washington: United States Government Printing Office, 1952).

“Foreign Relations of the United States: Effects of Closing Down the Iranian Oil Industry”, Office of the Historian, *history.state.gov*, 11/07/ 1951. Url: <https://history.state.gov/historicaldocuments/frus1951-54Iran/d39> (accessed 18/11/2022).

Graf Rüdiger

Oil and Sovereignty: Petro-Knowledge and Energy Policy in the United States and Western Europe in the 1970s (New York: Berghahn Books, 2018).

Groß Robert et al.

“How the European Recovery Program (ERP) Drove France’s Petroleum Dependency, 1948–1975,” *Environmental Innovation and Societal Transitions*, vol. 42, 2022, 268–284.

Groß Robert

“Kalorien, Kilowatt und Kreditprogramme. Das European Recovery Program (ERP) als Wendepunkt sozionaturaler Verhältnisse in Österreich?” in Robert Groß and Ernst Langthaler (eds.), *Zeitgeschichte, Special Issue Zeitgeschichte und Umweltgeschichte*, vol. 50, n°2, 193–215.

Groen E.

“The Significance of the Marshall Plan for the Petroleum Industry”, in *Third World Petroleum Congress, The Hague 1951, Proceedings. Section X: Economics and Statistics, Documentation, Education and Training, Legislation* (Leiden: E. J. Brill, 1951), 58–96.

Grünbacher Armin

“Cold-War Economics: The Use of Marshall Plan Counterpart Funds in Germany, 1948–1960”, *Central European History*, vol. 45, 2012, 697–716.

Harlaftis Gelina

“The Onassis Global Shipping Business, 1920s–1950s”, *The Business History Review*, vol. 88, no. 2, 2014, 241–71.

Hein Carola

“Oil Spaces: The Global Petroleumscape in the Rotterdam/ the Hague Area”, *Journal of Urban History*, vol. 44, n°5, 2018, 887–929.

“‘Old Refineries Rarely Die’: Port City Refineries as Key Nodes in The Global Petroleumscape”, *Canadian Journal of History*, vol. 53, n°3, 2018, 450–479.

Hogan Michael J.

The Marshall Plan: America, Britain and the Reconstruction of Western Europe, 1947–1952 (Cambridge: Cambridge University Press, 1987).

Huber Matthew T.

Lifeblood: Oil, Freedom, and the Forces of Capital (Minnesota: University of Minnesota Press, 2013).

Iber Walter M.

Die sowjetische Mineralölverwaltung in Österreich. Zur Vorgeschichte der OMV 1945-1955 (Innsbruck: Studienverlag, 2011).

“Erdöl statt Reparationen. Die Sowjetische Mineralölverwaltung (SMV) in Österreich 1945–1955,” *Vierteljahrshefte für Zeitgeschichte*, vol. 57, n°4, 2009, 571-605.

Jenkins Gilbert

Oil Economists' Handbook (London: Taylor & Francis, 1989).

Jensen Walter G.

Energy in Europe: 1945-1980 (London: Foulis, 1967).

Kaiser Wolfram

“From Post-war Reconstruction to Multi-level Neo-corporatism: The OEEC/OECS and Steel During the Cold War”, in Matthieu Leimgruber and Matthias Schmelzer (eds.), *The OECD and the International Political Economy Since 1948* (Cham: Springer International Publishing, Cham, 2017), 161-184.

Karlsch Rainer, Stokes Raymond G.

Faktor Öl: Die Mineralölwirtschaft in Deutschland 1859-1974 (München: C.H. Beck, 2003), 251-252.

Kander Astrid et al.

Power to the People: Energy in Europe over the Last Five Centuries (Princeton: Princeton University Press, 2014).

Kapstein Ethan B.

The Insecure Alliance: Energy Crisis and Western Politics since 1944 (Oxford: Oxford University Press, 1990).

Klose Alexander, Steininger Benjamin

Erdöl: ein Atlas der Petromoderne (Berlin: Matthes & Seitz, 2020).

Kovanda Jan, Hak Tomas

“Historical Perspectives of Material Use in Czechoslovakia in 1855–2007”, *Ecological Indicators*, vol. 11, n°5, 2011, 1375-1384.

Krausmann Fridolin et al.

“The Metabolic Transition of a Planned Economy: Material Flows in the USSR and the Russian Federation 1900 to 2010,” *Ecological Economics*, n°124, 2016, 76-85.

Johnstone Phil, McLeish Caitriona

“World Wars and the Age of Oil: Exploring Directionality in Deep Energy Transitions”, *Energy Research & Social Science*, n°69, 2020, 101732.

Legendijk Vincent

Electrifying Europe: The Power of Europe in the Construction of Electricity Networks (Amsterdam: Aksant, 2008).

Lane Richard

“The American Anthropocene: Economic Scarcity and Growth During the Great Acceleration,” *Geoforum*, vol. 99, 2019, 11-21.

Leimgruber Matthieu, Schmelzer Matthias

“From the Marshall Plan to Global Governance: Historical Transformations of the OEEC/OECD, 1948 to Present”, in Matthieu Leimgruber and Matthias Schmelzer, *The OECD and the International Political Economy Since 1948* (Cham: Palgrave Macmillan, 2017), 23-61.

LeMenager Stephanie

Living Oil: Petroleum Culture in the American Century (Oxford: Oxford University Press, 2014).

Lundestad Geir

“Empire by Invitation? The United States and Western Europe, 1945-1952”, *Journal of Peace Research*, vol. 23, n°3, 1986, 263-277.

Madureira Nuno Luís

“Oil in the Age of Steam,” *Journal of Global History* vol. 5, n°1, 2010, 75-94.

Melamid Alexander

“Geographical Distribution of Petroleum Refining Capacities: A Study of the European Refining Program”, *Economic Geography*, vol. 31, n°2, 1955, 168-178.

Milward Alan S.

The Reconstruction of Western Europe, 1945-51 (London: Methuen and Co., 1984).

Melsted Odinn, Pallua Irene

“The Historical Transition from Coal to Hydrocarbons: Previous Explanations and the Need for an Integrative Perspective,” *Canadian Journal of History*, vol. 53, n°3, 2018, 395-422.

Molle Willem, Wever Egbert

Oil Refineries and Petrochemical Industries in Western Europe: Buoyant Past, Uncertain Future (Aldershot, Brookfield: Gower, 1984).

“Oil Refineries and Petrochemical Industries in Europe” *GeoJournal*, vol. 9, n°4, 1984, 421-430.

Mineralöl: Zur Umstellung von Industriedampfkesseln von Kohle- auf Ölförderung. Vereinigung Industrielle Kraftwirtschaft (Essen, 1956).

Mitchell Timothy

Carbon Democracy: Political Power in the Age of Oil (London: Verso, 2013).

Mutual Security Agency (MSA)

European Industrial Projects: July 21, 1953 (Washington, D.C.: MSA Industry Division, Statistics and Report Division, 1953).

National Archives at College Park, MD. Krug, J. A.

National Resources and Foreign Aid Report, October 9, 1947, p. 5, in Krug Committee File, Record Group 59, Historical Collection Relating to the Formulation of the European Recovery Program 1947-1950.

National Archives at College Park, MD.

Paris Report: Appraisal of Paris Report and Justification of Magnitude of Aid Recommended, Record Group 59, Historical Collection Relating to the Formulation of the European Recovery Program 1947-1950.

Nouschi André

La France et le pétrole: de 1924 à nos jours (Paris: Picard, 2001).

OECD Archive, Paris. OEEC, Oil Committee

“Minutes of the 1st Meeting”, 24 May 1948.

“Minutes of the 53rd Meeting”, 16 November 1950.

“Minutes of the 60th Meeting”, 18 December 1951.

“Minutes of the 75th Meeting”, 27 July 1956.

“Minutes of the 77th session”, 1 October 1956.

“Minutes of the 78th session”, 20 October 1956.

“Minutes of the 82nd session”, 15 December 1956, 5.

“Record of the 92nd session”, 2 and 3 May 1957, 6

“Minutes of the 94th Meeting”, 8 July 1957.

“Report to the Executive Committee on the Likely Implications by 1960 of the Development of Crude Oil Refining Capacity in Member Countries”, Paris, 1 July 1959, 4-5.

Organisation for European Economic Co-Operation (OEEC)

Europe's Growing Needs of Energy: How Can They Be Met? A Report Prepared by a Group of Experts (Paris: OEEC, 1956).

Europe's Need for Oil: Implications of the Suez Crisis (Paris: OEEC, 1958).

First Report on Co-Ordination of Oil Refinery Expansion in the OEEC Countries (Paris: OEEC 1950).

Railroads in the U.S.A. Report of a European Group of Experts (Paris: OEEC, 1951).

Report of the Oil Committee to Be Published in 1956 (Paris: OEEC, 1956).

Second Report on Co-Ordination of Oil Refinery Expansion in the OEEC Countries (Paris: OEEC, 1951).

Some Aspects of the European Energy Problem. Suggestions for Collective Action. (Paris: OEEC, 1955).

Towards A New Energy Pattern in Europe. Report Prepared by the Energy Advisory Commission Under the Chairmanship of Austin Robinson (Paris: OECD, 1960).

The Coal Industry in Europe. The Situation in 1958 and 1959 and Outlook on Future Trends: A Study by the Coal Committee (Paris: Organisation for European Economic Co-Operation, 1960).

The Coal Industry in Europe. Trends in Economic Sectors (Paris: Organisation for European Economic Co-operation, 1954)

The Mechanization of Small Farms in European Countries: Report of the Agricultural Machinery Subcommittee of the OEEC (Paris: OEEC, 1951).

Pallua Irene

“A Hitchhiker’s Guide to Quantitative Energy Studies,” *Journal of Energy History/Revue d’Histoire de l’Énergie*, n°1, 2018. *D’une guerre à l’autre: l’itinéraire pétrolier d’Ernest Mercier* (Bruxelles: Peter Lang, 2020).

Painter David S.

“The Marshall Plan and Oil,” *Cold War History*, vol. 9, n°2, 2009, 159-175.

“Oil and the Marshall Plan”, *The Business History Review*, vol. 58, n°3, 1984, 359-383.

Painter David S.

Oil and the American Century: The Political Economy of U.S. Foreign Oil Policy, 1941-1954 (Baltimore: The Johns Hopkins University Press, 1986).

Pfister Christian

“The “1950s Syndrome” and the Transition From a Slow-Going to a Rapid Loss of Global Sustainability”, in Frank Uekötter (ed.), *The Turning Points in Environmental History* (Pittsburgh: University of Pittsburgh Press, 2010), 90-117.

Pozzi Daniele

“The Natural Gas Industry in Italy Since Autarky Until Eni’s Hegemony (1935-1965)”, in Alain Beltran (ed.), *A Comparative History of National Oil Companies* (Brussels: Peter Lang, 2010), 233-263.

Robertson Thomas

“Conservation after World War II: The Truman Administration, Foreign Aid, and The “Greatest Good””, in Karl Boyd Brooks (ed.), *The Environmental Legacy of Harry S. Truman* (Kirksville, Mo.: Truman State University Press, 2009), 32-47.

Sassi Mohamed

“Compagnie Francaise des Pétroles and Its Contribution to the Re-establishment of France’s Position among the Oil Countries after the Second World War”, *Business and Economic History Online*, vol. 1, 2006. Url: <https://thebhc.org/compagnie-francaise-des-petroles-and-its-contribution-re-establishment-frances-position-among-oil> (accessed 17/11/2022).

Schipper Frank

“Changing the Face of Europe: European Road Mobility During the Marshall Plan Years”, *The Journal of Transport History*, vol. 28., n°2, 2007, 211-228.

Schipper Frank, Schot Johan

“Infrastructural Europeanism, or the Project of Building Europe on Infrastructures: An Introduction,” *History and Technology*, vol. 27, n°3, 2011, 245–264.

Schmelzer Matthias

“The Growth Paradigm: History, Hegemony, and the Contested Making of Economic Growthmanship,” *Ecological Economics*, vol. 118, 2015, 262–271.

The Hegemony of Growth: The OECD and the Making of the Economic Growth Paradigm (Cambridge: Cambridge University Press, 2016).

Schulz-Forberg H.

“Crisis and Continuity: Robert Marjolin, Transnational Policy-Making and Neoliberalism, 1930s–70s,” *Eur. Rev. History / Revue Eur. d’histoire*, vol. 26, n°4, 2019, 679–702.

Statistical Office of the European Communities

A Comparison of Fuel Prices 1955–1970 (Luxembourg: Eurostat, 1974). Steffen Will et al., “The Anthropocene: Conceptual and Historical Perspectives,” *Phil. Trans. R. Soc. A*, n°369, 2011, 842–867.

Steinberg Ted

“Can Karl Polanyi Explain the Anthropocene? The Commodification of Nature and the Great Acceleration,” *Geographical Review*, vol. 109, n°2, 2019, 265–270.

Stokes Raymond

Opting for Oil: The Political Economy of Technological Change in the West German Chemical Industry, 1945–1961 (Cambridge: Cambridge University Press, 1994).

Szeman Imre

On Petrocultures: Globalization, Culture, and Energy (West Virginia University Press, 2019).

“The Marshall Plan and How It Works”, *marshallfoundation.org*. Url: https://www.marshallfoundation.org/library/wp-content/uploads/sites/16/2014/06/The_Marshall_Plan_and_How_It_Works.pdf (accessed 20/5/2021).

Tinhof Franz

Zehn Jahre ERP in Österreich 1948–1958. Wirtschaftshilfe im Dienste der Völkerverständigung (Wien: Verlag der Österreichischen Staatsdruckerei, 1958).

Tulucan Alina Dana et al.

“History of the Oil and Gas Industry in Romania”, *Geological Society, London, Special Publications*, vol. 465, n°1, 2018, 191–200.

Türk Henning

“The Oil Crisis of 1973 as a Challenge to Multilateral Energy Cooperation Among Western Industrialized Countries”, *Historical Social Research/Historische Sozialforschung*, vol. 39, n°4, 2014, 209–230.

UNECE

“Protocol amending the title of the European Agreement of 30 September 1957 concerning the International Carriage of Dangerous Goods by Road, Geneva, 30 September 1957”. Url: <https://unece.org/protocol-amending-title-european-agreement-30-september-1957-concerning-international-carriage> (accessed 18/11/2022).

Wiedenhofer Dominik et al.

“Is There a 1970s Syndrome? Analyzing Structural Breaks in the Metabolism of Industrial Economies”, *Energy Procedia*, n°40, 2013, 182–191.

Williams Marie

“Choices in Oil Refining: The Case of Bp 1900–60”, *Business History*, vol. 26, n°3, 1984, 307–328.

Wilson Sheena, Szeman Imre, Carlson Adam

“On Petroculture: Or, Why We Need to Understand Oil to Understand Everything Else”, in Sheena Wilson, Adam Carlson and Imre Szeman (eds.), *Petrocultures: Oil, Politics, Culture* (McGill-Queen’s Press-MQUP, 2017), 3–19.

Wishart Ronald S.

“Industrial Energy in Transition: A Petrochemical Perspective,” *Science* vol. 199, n°4329, 1978, 614–618.

Yergin Daniel

The Prize: The Epic Quest for Oil, Money, and Power (New York: Simon and Schuster, 1991).

Zedalis Rex J.

The Legal Dimensions of Oil and Gas in Iraq: Current Reality and Future Prospects (Cambridge: Cambridge University Press, 2009).

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The ubiquity of Royal Dutch Shell in the Netherlands as a case of banal petroculture

Abstract

In 1995 Michael Billig introduced the term 'banal nationalism' to refer to those representations and reproductions of the nation which are as ubiquitous as they tend to go unnoticed. I try to link this concept to 'petroculture' since that notion too refers to practices that are so pervasive in modern societies that we tend to overlook them. Case in point is Royal Dutch Shell, in the Netherlands often and tellingly abbreviated to 'de Koninklijke' (the Royal one). By making explicit what most readers and citizens overlook because Shell seems as 'natural' in Dutch culture as tulips, bicycles and windmills, this contribution tries to make clear how the everyday aspects of Dutch petroculture in tourism, literature, and advertising are linked with the elite practices of managers and politicians.

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Plan of the article

- Introduction: Earthquakes and Gas
- Banal nationalism and banal petroculture
- The Royal One
 - Just a Case of Successful Management: Shell Politicians
- Facts We Have to Accept: Shell as a Guardian of Dutch heritage and nature
- "These are great people." Artists and Intellectuals & Shell
 - A Picture of Shell
 - Histories of Shell
 - Gerrit Krol and Shell
- Tables Are Turning, Houses Collapsing
- Conclusion: A Troubled Love Affair

INTRODUCTION: EARTHQUAKES AND GAS

- 1 When presenting its conclusions and recommendations on February 24 2023, the Parliamentary Committee of Inquiry into natural gas extraction in the Dutch province of Groningen did not mince its words: this whole affair had been “an unprecedented system failure by public as well as private parties”.¹ After seven weeks of hearings in the Summer and early Fall of 2022 about the damage caused by 1,615 gas extraction induced earthquakes in Groningen this much was already clear: the ties between Big Oil and Dutch officials had made things considerably worse. But for the committee to label the situation “disastrous”, to call a specific government decision “a gross infringement of the interests of the people of Groningen” and to emphasize that the private company extracting the gas had lost “its moral license to operate” was something else.²
- 2 The earthquakes that have resulted in more than 267,000 claims for damage in the Groningen region are a direct result of the extraction of gas in what was once the largest natural gas field in the world, exploited by NAM (Nederlandse Aardolie Maatschappij), jointly owned by Shell and Exxon. That subsidence might be a problem in Groningen was suggested by NAM itself as early as 1972, but even after the 3.6 Huizinge earthquake in August 2012 the extraction *increased*. How could this happen? Economic and budgetary concerns and financial incentives and ambitions obviously played a major role. All too trusting scientists who for years could not imagine this to be a problem and consequently failed to research the issue bear some of the responsibility. That TU Delft’s Earth Sciences

department received generous corporate funding probably did not help either.³

A key explanation, however, is formulated as Conclusion 5 in the Parliamentary Committee’s report when it states that “Oil companies benefit from the confusion of roles at the ministry of Economic Affairs”.⁴ Dutch top officials apparently did a better job informing corporate executives than their ministers. These ministers, for their part, tended to put more trust in the executives of Big Oil than in their own official regulator Staatstoezicht op de mijnen (State Supervision of Mines). And to top it all, during his job interview for inspector general of Staatstoezicht a former official noticed a representative of Big Oil (which he would supervising) to be part of the selection committee.⁵ Collusion, in other words. Not deceit let alone a conspiracy, but a situation in which public duties are neglected because officials and politicians are so close with private partners that they lose sight of what is really at stake.⁶

That Shell is one of these partners should perhaps not come as a surprise. For more than a century this multinational firm has managed to be seen in the country as a major Dutch force

¹ Parliamentary Committee of Inquiry into Natural Gas Extraction in Groningen, *Groningers before Gas*, vol. 1. *Conclusions and recommendations* (The Hague: Tweede Kamer der Staten-Generaal, 2023), 26. The five volume report counts 1956 pages in Dutch. The first part, *Conclusions and recommendations*, is also published in English, both on paper and as a pdf download.

² *Ibid.*, 16, 51, 30.

³ Jurre van den Berg, “Hoe Nederlandse wetenschappers zich decennialang verkeken op de gevaren van gaswinning in Groningen”, *de Volkskrant*, 7 October 2022.

⁴ Parliamentary Committee of Inquiry, *Groningers before gas*, 49-53 (cf. note 1).

⁵ *Ibid.*, 55.

⁶ Cf. “Shell and ExxonMobil, the shareholders of NAM, have short lines of communication with the ministry and the Cabinet as well. This is true for Shell in particular. The Shell chief executive has discussions with the prime minister every year and indicates viewing him as a friend. These short lines are also visible when NAM has to answer questions by the regulator State Supervision of Mines. An example is when, in 2018 after the quake in Zeerijp and according to protocol, within 48 hours NAM has to put forward measures to contain the risks of earthquakes as well as possible. Despite the fact that the regulator asks for measures, the ministry of Economic Affairs lets NAM know that concrete measures are not necessary. The regulator still observes that the distance between NAM and the ministry is extremely small. “I got a sense of ‘them all being hand in glove’, which I found most disconcerting, because that makes the performance of my duties a lot more complicated,” Inspector General of Mines Theodor Kockelkoren says during his public hearing.” *Ibid.*, 56.

of good and, thus, national pride. From day one in the Spring of 1890 Shell received the royal seal of approval and even international scandals concerning the firm's involvement in Apartheid in the 1970s and 1980s, the Brent Spar and Ken Saro-Wiwa affairs in the 1990s or its controversial climate policies did until very recently not substantially alter its image or, more importantly, power.⁷

5 Its sheer economic size can account for Shell's political clout, but in this article I want to make the case that the company's power is even more pervasive. As the quintessential harbinger of progress, Shell also represents a remarkable cultural force. In my contribution to this special issue on Petrocultures, I want to explore and investigate how Shell's cultural work actually functions in the Netherlands, both in a strict sense (focusing on specific literary and artistic oil and gas related artefacts) and on a broader level, where culture and politics meet in what could be named a Shell habitus, which for over a century propelled petrofriendly ideas in such a way that Shell became a symbol of modernity as well as a trusted house friend. I build on earlier research by Hein (2018) who emphasized

7 Royal seal of approval for Shell's predecessor Nederlandsche Maatschappij tot Exploitatie van Petroleumbronnen in Nederlandsch-Indië: C. Gerretson, *Geschiedenis der 'Koninklijke'*, vol. 1 (Baarn: Bosch & Keuning, 1971), 97–99. For some of the scandals in recent Shell history: Ike Okonta, Oronto Douglas, *Where Vultures Feast: Shell, Human Rights, and Oil in the Niger Delta* (San Francisco: Sierra Club Books, 2001); Jack Doyle (ed.), *Riding the Dragon: Royal Dutch Shell & the Fossil Fire* (Boston, Mass.: Environmental Health Fund, 2002); Ian Cummins, John Beasant, *Shell Shock: The Secrets and Spin of an Oil Giant* (Edinburgh: Mainstream Pub, 2005); Daniel A. Omoweh, *Shell Petroleum Development Company, the State and Underdevelopment of Nigeria's Niger Delta: A Study in Environmental Degradation* (Trenton, NJ: Africa World Press, 2005); Keetie Sluyterman, *Geschiedenis van Koninklijke Shell*, vol. 3, *Concurreren in turbulente markten, 1973-2007* (Amsterdam: Boom, 2007), 314–329 (Apartheid), 335–341 (Brent Spar), 342–355 (Nigeria); Keetie Sluyterman, "Royal Dutch Shell: Company Strategies for Dealing with Environmental Issues", *Business History Review*, vol. 84, n°2, 2010, 203–226 and Marcel Metze, *Hoog spel. De politieke biografie van Shell* (Amsterdam: Balans, 2023), 389–440, 454–504, 522–528. A very critical Dutch book about Shell in the 1980s: René Didde et. al. (red.), *Als het tij keert: Shell en Nederland, macht & verbeelding* (Amsterdam: Ravijn, 1989).

how Dutch petromodernity has transformed Dutch landscapes and everyday practices, and by Plets and Kuijt (2022) who demonstrated how prominent hydrocarbon players like Shell and NAM have bought their way (and ideology) into major Dutch museums, presenting themselves as homegrown models of innovation.⁸

6 Linking Michael Billig's concept 'banal nationalism' to Shell's position in the Netherlands I try to enrich our understanding of how fossil fuel companies, very much like their commodities, are at their most powerful when they can hide in plain sight.⁹ I focus on three distinct yet inter-related aspects: the résumés and memoirs of prominent politicians who have worked for Shell, the way Shell seems to sponsor Dutch culture and nature as elements of national heritage, and the position and image of Shell as it is conveyed in elite art works, the books of highly respected artists like one of its most famous employees, multi-award winning experimental writer Gerrit Krol in particular.

BANAL NATIONALISM AND BANAL PETROCULTURE

7 For far too long, social scientist Michael Billig suggested in 1995, academics and media tended to see nationalists as 'the other' – rebel rousers in former Soviet states or weird separatists tearing up Yugoslavia or, for that matter, Belgium or Canada. A misleading frame, Billig claimed, because it overlooks the deeply rooted nationalism in established nation states like France and the United States. In his eponymous book he labeled their type "banal nationalism" – not

8 Carola Hein, "Oil Spaces: The Global Petroleumscape in the Rotterdam/The Hague Area", *Journal of Urban History*, vol. 44, n° 5, 2018, 887–929; Gertjan Plets, Marin Kuijt, "Gas, Oil and Heritage: Well-Oiled Histories and Corporate Sponsorship in Dutch Museums (1990-2021)", *BMGN-Low Countries Historical Review*, vol. 137, n°1, 2022, 50–77. For a general discussion of the concept 'petroculture', see the Introduction to this special issue.

9 Fossil fuels hiding in plain sight, see: Sheena Wilson et. al., "On Petrocultures: Or, Why We Need to Understand Oil to Understand Everything Else", Sheena Wilson et. al. (eds.), *Petrocultures: Oil, Politics, Culture* (Montreal/Chicago: McGill-Queen's University Press, 2017), 4.

because it tends to be peaceful or benign (the Falklands and Gulf Wars were very much on his mind) but because it manifests itself in daily, indeed mundane practices. Singing the national anthem before a local sports game, pledging allegiance to the flag, sports pages mainly devoted to national competitions, celebrating national holidays or teaching what is considered to be the national language – these practices are “so familiar, so continual” that we barely register them. “The metonymic image of banal nationalism is not a flag which is being consciously waved with fervent passion; it is the flag hanging unnoticed on the public building.”¹⁰ Billig’s intention in reframing and broadening the term nationalism was unapologetically political. With *Banal Nationalism* he wanted to “draw attention to the powers of an ideology which is so familiar that it hardly seems noticeable.”¹¹

- 8 That is where petroculture comes in. The grip fossil fuels hold on our lives is also based on deeply ingrained daily practices (heating our homes, driving to work, powering our tooth brushes and tablets) we don’t tend to notice. (Or only start noticing during an energy crisis, not unlike how many Americans expected their neighbors to be visibly and audibly more patriotic after 9/11.) In this article I try to adapt Billig’s line of thinking to the power of fossil fuel companies, not by looking at their actual extraction and production or their lobbying practices but on how they have managed to become a piece of furniture so ubiquitous we stopped noticing it, even if their power should be a source of concern.
- 9 The impact of banal nationalism, Billig stressed time and again, should not be underestimated. Real wars are being fought by nation states which do not consider themselves to be nationalist at all. I want to argue that petroculture functions not that differently. The power of petrostates is well established. Banal petroculture, on the other hand, like banal nationalism, operates more subtly. Not necessarily under the radar: gas stations and oil tanker trucks are

there, for everybody to see. It is in the realm of culture, however, in books, films, museums, tourist attractions and the general discourse that banal petroculture really manifests itself. Like product placement in games and tv shows the sheer presence in our daily lives of fossil fuel companies’ logos naturalizes petroculture, and even more so if they appear in places where you wouldn’t expect them. If a substantial number of its politicians have a stint at a fossil fuel company on their resumé it becomes normal for a country to have a political class full of petropoliticians. If a fossil fuel company’s products are also part of the entertainment industry or art world, they become associated with leisure or having fun. Together these petrosigns come to symbolize a world in which fossil fuels are assumed to be crucial ingredients of a modern and developed society. And, to be clear, those societies can be found outside of fully-fledged petrostates as well.

Petrostates like Saudi Arabia, Qatar, Kuwait, Venezuela, Nigeria, and Russia are nation states where a small elite wields enormous power, both politically and economically, based on the presence of oil or natural gas in their country’s soil. Those nations, one could say, are examples of non-banal petroculture. In these countries it is impossible to ignore the impact and power of fossil fuels. They are the petroculture counterpart of what nationalism is in places like Serbia or Catalonia. I want to suggest, however, that there are also banal petrostates. My case in point is the Netherlands, a liberal democracy and founding member of the European Union with supposedly very strong institutions.¹²

Plets and Kuijt have argued convincingly that in the 1970s the Netherlands became an actual “petrostate” when “production at Slochteren,

¹⁰ Michael Billig, *Banal Nationalism* (London: Sage, 1995), 8.

¹¹ *Ibid.*, 12.

¹² An important caveat: this article only deals with the European part of the Kingdom of the Netherlands. Its colonial history and presence when it comes to petroculture is a whole different story which deserves a separate article. See Sinaya Wolfert, *Curaçao: Life with an oil refinery* (Amsterdam: Sinaya Wolfert Fotografie, 2019) for a multi-faceted presentation of how Shell and the Lesser Antilles island almost became synonymous.

then Europe's largest gas reservoir, was significantly increased", making the country "highly reliant on royalties paid by the gas companies for filling the treasury and balancing the budgets".¹³ These shared financial interests obviously played a major role in the Groningen earthquake debacle. That it took so long for this tragedy to become a national scandal, however, might have had other reasons as well. The peripheral position of the Groningen province probably was a factor. But I want to suggest the position Shell/NAM had in the hearts and minds of so many people – the population at large, but members of the elites in particular – is also part of the explanation.¹⁴ There seems to have been a form of cognitive dissonance at play: it proved very difficult to be critical or even skeptical when it came to Shell. Shell, for most Dutch people, were the *good guys*, creating jobs and revenue on an enormous scale, and, more importantly, symbolizing some of the central values of the nation.

- 12 Together with former electronics company Philips, Royal Dutch Shell came to epitomize innovation and modernity in the Netherlands.¹⁵ Unlike Philips, however, the fossil fuel giant also featured "Dutch" in its name, making it the perfect standard bearer, both home and abroad, of a nation eager to embrace and espouse progress. When banal nationalism and banal petroculture are mixed the results can be explosive. As Carola Hein noted, "Royal Dutch Shell has become a national icon in the Netherlands [...] and this status has further increased its power to transform physical and cultural landscapes through interventions at

the government level."¹⁶ A closer look at how Shell is part and parcel of so many aspects of Dutch culture might help us understand how banal petroculture functions.

THE ROYAL ONE

Both its first official history and the title of one of Gerrit Krol's novels refer to Royal Dutch Shell colloquially, or maybe a more apt word would be fondly, as the 'Koninklijke', literally: the royal one. By no means is Shell the only Dutch firm to boast its royal approval in its name. The K in KLM, after all, stands for 'Koninklijke' as well. Yet amongst these companies Shell is the *primus inter pares*. Hence, only Shell is being referred to with the abbreviation 'de Koninklijke'. 13

Shell's early history was a harbinger of things to come. Instrumental in establishing this new company and in the Spring of 1890 obtaining the royal epithet to this yet-to-be-founded corporation, usually only granted after decades of successful functioning, was N.P van den Berg, former president of the Bank of Java and from 1889 onwards president of the central bank of the Netherlands, De Nederlandsche Bank. H.D. Levyssohn Norman, the first chairman of the board of what would initially be called the Koninklijke Nederlandsche Maatschappij tot Exploitatie van Petroleumbronnen in Nederlandsch Indië (Royal Dutch Company for the Exploitation of Petroleum in the Dutch East Indies) was a member of Parliament, as was another board member D. de Ruiter Zijlker. Besides being a chemist specialized in analyzing petroleum W.J.E. Hekmeijer, co-founder, shareholder and also member of the first board, was a former lieutenant colonel of the Royal Netherlands East Indies Army, better known as KNIL.¹⁷ In other words, from its very first days this colonial petroleum company was run by men hailing from the top of the Dutch political, financial, military and colonial establishment. 14

¹³ In Plets & Kuijt, "Gas, Oil and Heritage", 57 (cf. note 8).

¹⁴ During the parliamentary debate on 6 June 2023 Prime Minister Mark Rutte labelled the relations between his officials and the gas and oil industry as "too intimate", but in an exchange with MP Pieter Omtzigt he explicitly refused to use that same label for Dutch cabinet members' relationships with Shell, despite the fact that former Shell CEO Van Beurden called Rutte a "friend" during the hearings (See note 6).

¹⁵ A point made earlier in Plets & Kuijt, "Gas, Oil and Heritage", 61 (cf. note 8) when they note how Shell is seen and presented "as a national institution driving Dutch science and innovation".

¹⁶ Hein, "Oil Spaces", 918-919 (cf. note 8).

¹⁷ Gerretson, *Geschiedenis der 'Koninklijke*, 91-99 (cf. note 7).

15 A separate history could and perhaps should be written about the interconnectedness of these Dutch elite institutions and prominent Shell employees.¹⁸ These are just a few examples. Hendrik Colijn, one of the country's most legendary Prime Ministers (1925–1926/1933–1939), served as lieutenant in the Aceh War under the infamous KNIL-general J.B. van Heutsz, before becoming managing director of the Bataafsche Petroleum Maatschappij in 1914 and, in 1921, general manager of Royal Dutch Shell. In recent history as well, the distance from the Hague's political center to the Shell headquarters in that same city seems even less than the 1.9 kilometer it actually is. The influence works both ways, from Dutch politics to Shell and from Shell to the upper regions of Dutch politics. From 2003 onwards social-democrat Dick Benschop, former Deputy Minister of Foreign Affairs (1998–2002), worked for Shell in The Hague and Kuala Lumpur, before becoming CEO of Shell Netherlands in May 2011 (making him a key witness in the Groningen hearings). After serving as Prime Minister from 1994 until 2002 the social-democrat Wim Kok became a member of the board. The conservative-liberal Gerrit Zalm, the longest serving Finance Minister in Dutch history and chairman of the board of ABN Amro bank from 2009 until 2017, became a Shell board member in 2013. By hiring these top politicians the company acquires both their policy insights and their international networks.¹⁹ Shell's very successful recruitment

¹⁸ The links are often so blatant even right wing and corporate minded media took notice. See: Jean Dohmen, "Oliegigant Shell is staat in de staat", *EWmagazine.nl*, 26/06/2018. Url: <https://www.ewmagazine.nl/economie/achtergrond/2018/06/oliegigant-shell-is-staat-in-een-staat-136892w/> (accessed 12/06/2023) also Niels Markus, "Het aantal Haagse politici met Shell op hun cv is overweldigend", *Trouw*, 16 November 2021.

¹⁹ Paul Schnabel's case is a bit different, but significant in its own right: he wrote columns for Shell's Dutch quarterly *Venster* while he was serving on the Social and Economic Council and while he was a Senator for the social liberal party D (2015–2019). He was general director of SCP, the official Netherlands Institute for Social Research (1998–2013), and is generally considered to be one of the country's leading public intellectuals (university professor at Utrecht with scientific integrity as his area of expertise) and one of the most influential people of the Netherlands (on the board of countless museums and special councils, including Shell's). His father and brother worked for Shell and he

practices also produce high potentials who might later on seek office. Two of the three Deputy Prime Ministers in the current Dutch government, christian-democrat Wopke Hoekstra and social liberal Sigrid Kaag, worked for Shell before becoming politicians. A similar trajectory was followed by the conservative-liberal leader and European Commissioner Frits Bolkestein and by Wouter Bos, Labour party leader and Deputy Prime Minister from 2007 until 2010. Both wrote a memoir in which they reflected on their Shell years. A close reading of these memoirs enables us to get a closer look at the values and practices they cherished from these years.

Just a Case of Successful Management: Shell Politicians

Working in East Africa, Honduras, El Salvador, 16
Indonesia and the London and Paris offices Bolkestein was with Shell from 1960 until 1976. In his 2013 memoir *Cassandra tegen wil en dank* (Reluctant Cassandra), he presents Shell as the ideal workplace for a person with his ambitions and temperament. "What is the essence of Shell? Is it oil, gas or chemistry? Is it technology? No, it's management. Without my Shell experience I wouldn't have been able to be a successful leader of my party in the House of Representatives."²⁰ An impressive global network is obviously something Bolkestein built in these years, but the main management lesson he learned would prove influential for his politics: "My Shell experience had taught me that it is better not to avoid tough choices."²¹ It was a management style that fitted perfectly in the neoliberal age Bolkestein helped to shape politically. Its core message – there is no alternative to sound management policies – was echoed in his memoir's title.

was able to go to college on a Shell scholarship; he is a close friend of Jeroen van der Veer's, former Royal Dutch Shell's CEO (2004–2009). On one occasion Van der Veer took Schnabel (and former Prime Minister Wim Kok) on a Shell company plane to see an opera in London. ("Paul Schnabel", *Brandpunt Profiel*, 19/02/2012. Url: https://www.npostart.nl/profiel/19-02-2012/POW_00445545 (accessed 12/06/2023))

²⁰ Frits Bolkestein, *Cassandra tegen wil en dank. Memoires* (Amsterdam: Prometheus/Bert Bakker, 2013), 76 (all translations from Dutch sources are mine, gb).

²¹ *Ibid.*, 96.

- 17 When he himself made the apparently tough choice of leaving Shell to become a politician, however, he asked the company to make a telling exception. “In the meantime I had a financial problem. I was 43 years old. When I would turn 47 I was entitled to early retirement [sic] [...] The thing was that every Shell employee who, for whatever reason, had to leave the company, could avail oneself of redundancy pay. I did not fit into that category – my next position was already clear – but nevertheless I asked if a similar arrangement was possible because of my uncertain political future. It was.”²² For the reader it was not entirely clear whether this passage should have been read as cynical or patently naïve. Apart from the fact that Bolkestein and his party were not on the record as proponents of enlarging the welfare system it seems unlikely he did not appreciate why Shell would grant this exception to him, a high achieving, ambitious, by all accounts brilliant manager hoping to become a central player in one of the country’s top political parties. But it never was a tough choice let alone a gamble: Bolkestein’s career switch was part of a deliberate attempt by Shell, Unilever, Philips and Akzo to influence Dutch politics by parachuting some of their own top managers in a position of power.²³
- 18 A similar faux naivety can be found in Wouter Bos’s *Dit land kan zoveel beter* (This country can do so much better, 2006) when he writes about how he ended up at Shell. “‘Dear Mr. Bos. We kindly invite you for the next step in your job application, etc, yours sincerely, Shell the Netherlands.’ I was flabbergasted when I received this letter in my mailbox. Sure, a few days earlier I had been at Shell’s for a conversation but that was nothing more than a job interview training for almost-graduates, was it? Later I would learn that Shell uses these types of informal trainings for talent scouting.” Bos was about to lose his innocence, he quickly adapted: “When I became a recruiter myself at Shell Hong Kong this was exactly how I would do it.”²⁴ Upper middleclass Bolkestein, one could say, was born to become a Shell manager. Bos wasn’t. In his family of Calvinist social-democrats who hosted Desmond Tutu and Allan Boesak at their home Shell was not exactly a popular career choice. At the heights of the anti-Apartheid struggle in the 1980s Shell was generally seen as the enemy, in their circles.²⁵ Wouter Bos sympathized with that struggle and he was active himself in the Labour Party PvdA (Partij van de Arbeid) and yet: “I chose Shell. Out of rebelliousness, vanity, ambition and a desire to work at a place where I could learn a lot.”²⁶ He asked (and was granted) the right not to work in or with South Africa. And he liked what came his way instead: “To be fair, I did enjoy the spoils. A young expat working in these surroundings with this salary tended to have a great time indeed. At Shell’s they call it the golden chains, there to tie you to the company for years on end.”²⁷ Still Bos left. The reason he gives is intriguing: “I could not get worked up about it, it could not make me happy, in the end it did not do me anything at all.”²⁸ A few pages earlier Bos mentioned Shell’s troubles with Brent Spar and Ken Saro-Wiwa yet this socialist could not get worked up about his company. And he desperately wanted to care. And to lead, because his ambitions remained intact.
- In just a few years’ time he became one of the leading voices of his party. He was ready to become the top dog and felt he deserved it: “meritocratic Shell had left its traces.”²⁹ That much was clear, because in the part of the book where he writes about his political beliefs and the platform he is trying to sell – the book was part of the 2006 general election campaign

²² Ibid., 98.

²³ Metze, *Hoog spel*, 436 (cf. note 8).

²⁴ Wouter Bos, *Dit land kan zoveel beter* (Amsterdam: Bert Bakker, 2005), 27.

²⁵ For a representative take, see this article on Shell and South Africa by a Dutch union leader: Hans Hoffman, “Je bent een brave hond als je niet blaft”, in René Didde et. al. (red.), *Als het tij keert: Shell en Nederland, macht & verbeelding* (Amsterdam: Ravijn, 1989), 24-33.

²⁶ Bos, *Dit land*, 27 (cf. note 24).

²⁷ Ibid., 35.

²⁸ Ibid., 38.

²⁹ Ibid., 43.

– his ideas do not seem that different from what major corporations like Shell would want: “if an ever enlarging welfare state with higher taxes and premiums comes at the expense of growth and jobs, you’re bound to run into problems.”³⁰

20 That Shell is a well-oiled recruiting machine for the world’s elite should be clear from these accounts. In the Netherlands it has been training and forming the brightest and most ambitious of every generation for over a century because quality makes for a successful business but also because the many talented employees who might leave the company at some point in their lives are bound to end up in other important jobs. And when they do, they inevitably will bring some of Shell’s values and practices to their new working environments. In Bolkestein’s and Bos’s case these were the corridors of power, both in the Netherlands and the European Union. On some level Shell’s golden chains keep working, even if the company no longer has to pay for them. As human resources go the gold is Shell’s. Of course, this does not mean that these Shell trained politicians invariably do Shell’s bidding. It does, however, produce an *old boys network* culture in which the risk of collusion increases.

FACTS WE HAVE TO ACCEPT: SHELL AS A GUARDIAN OF DUTCH HERITAGE AND NATURE

21 In the Spring of 2022 Dutch Climate and Energy Policy Minister Rob Jetten and his colleagues of Housing and Spatial Planning, and of Economic Affairs and Climate Policy – a distribution of powers worth noting – convened with some two hundred stakeholders to discuss the government’s climate agenda. The place where they met was highly symbolic, two journalists of *De Groene Amsterdammer* noted: Madurodam. In this miniature park filled with scale models of famous Dutch landmarks and cities “the windmills are tiny, the airport disproportionately large. You could say the park really visualizes a Netherlands of interests. Drilling rigs are higher than houses, and trucks with Shell logos are all over the place. [...] Shell and KLM are amongst

[the park’s] founding fathers.”³¹ When the park was built, in the early fifties, Madurodam not only got its own hymn, praising the industrious and freedom loving Dutch, but also a founding myth and a short history, which ended on a telling high note: “Very close to the city successful drillings for oil were undertaken. Large tankers regularly enter the harbor to load and ship the oil.”³² Shell’s ubiquity at Madurodam is indeed a striking case of mimesis. As to be expected, the Shell service station at the park is a perfect copy of a station you could find on a real Dutch highway; the Madurodam NAM oil and gas production platform on the other hand has a few small NAM logo’s but to any Dutch person its yellow-and-red color scheme simply screams: Shell. Madurodam illustrates perfectly how Shell is quite literally part of the national make-up.³³

As Dutch tourism and national heritage go Shell 22 has a very rich and telling history. Promotional maps and brochures about the Dutch landscape have been a staple of their pr efforts for decades; showing “icons of gas stations in a landscape dotted with oversized windmills and traditional Dutch houses with tulips, enticing the user to explore neighboring cities and regions” they have been, as Carola Hein noted, “promoting the car as a vehicle of freedom and discovery”.³⁴ A remarkable but little noted example are the booklets Shell sent out from 1961 to 1993 during the holiday season to tens of thousands of

³¹ Jaap Tielbeke, Coen van de Ven, “De minister van groene verleiding. Profiel: Rob Jetten”, *De Groene Amsterdammer*, 6 July 2022. When Madurodam opened in 1952 Shell’s president was one of its trustees (*Shell Venster*, n° 1, 2014, 7).

³² Peter Hofstede, “Hymne van Madurodam”, *Langs de rails*, Url: https://www.nicospilt.com/index_Madurodam.htm (last access 16/08/2023); myth: “Graaf van Laagland stichtte Madurodam”, in *Madurodam*, 1954, 5.

³³ Plets and Kuijt demonstrate how Shell’s involvement in Dutch museum extends far beyond Madurodam. Shell/NAM supported important historical museums (Netherlands Open Air Museum, National Museum Boerhave and the Drents Museum), making possible specific exhibitions about energy history and policy. The Boerhave case in particular seems to have mixed banal nationalism and banal petroculture: “the exhibition discursively connected fossil fuels to Dutch citizenship or ‘Nederlanderschap’. Plets, Kuijt, “Gas, Oil and Heritage”, 60 (cf. note 8).

³⁴ Hein, “Oil Spaces”, 918 (cf. note 8).

³⁰ Ibid., 124.

its business relations. Mixing banal nationalism with banal petroculture these *Shell Journals* mainly dealt with either Dutch nature (trees, rivers, ponds) or Dutch culture (folklore, brass bands, monuments, bridges). In the mid-1960s these promotional gifts were tour guides (to old villages, castles and country houses), making them in effect also gifts to Shell itself, because these automobile tours would obviously require petrol.

23 Shell commissioned these books from a limited set of authors, the most famous of them probably being Leonhard Huizinga, son of historian Johan Huizinga. The introductions to these highly informative books, signed by subsidiaries of Shell itself, tried to impress upon the reader the importance of the topic at hand. When these topics dealt with nature, they invariably smell of pr while also being good for business.

24 Take the introduction to volume 1, Huizinga's 1961 *Natuurwijzer* (nature primer): "The population of this good small country increases with frightening speed. The cities, most of all Randstad Holland, grow accordingly. Industry advances towards the country side. Nature is being pushed back by a streamlining world. These are facts which we have to accept. Yet we should never forget that if he loses contact with living nature man is doomed to unhappiness."³⁵ Progress and modernity are a given and, inevitably, nature has got to give. The five-day working week and the fact that more people are using motorized vehicles make it possible for people to find leisure far away from home, the introduction states, stressing how important it is for nature to be preserved. In words they tellingly do not use: our cars, roads, factories and installations take away nature, yet our cars will also bring us to whatever is left of nature.³⁶

³⁵ Shell Nederland Verkoopmaatschappij, "Wereld in stroomlijn", in Leonhard Huizinga, *Shell natuurwijzer: een twaalf-provinciën rhapsodie* (Den Haag: Shell Nederland Verkoopmaatschappij, 1961), 4.

³⁶ This illustrates another point of Hein's: "Company publications geared at the general public continued to construct a spatial meaning that is different from the one that they actually build: their focus remains on accessibility of

Another fascinating example was published 25 during and on the occasion of the European Conservation Year 1970. Topic of that year's special publication: Dutch water. "We at Shell believe that at the end of the European Conservation Year N 70 more special attention should be devoted to water. We should never forget the universal meaning of water." This issue was signed by Shell's Sales Department and, more remarkably, by its Chemistry division. As if Shell's many products did not impact Dutch waterways. (And even more startling: this issue was dedicated to the Dutch bird protection organization who provided an extra preface; as if Shell's pesticides had nothing to do with the many birds who saw their habitats destroyed.) That same year Shell also published a thirty page brochure called *Shell en het leefmilieu. Het leefmilieu en Shell* (Shell and the environment. The environment and Shell) about N 70 in which it called for more intergovernmental power and boundary setting: "It would be advisable to see this communal approach transformed into an intergovernmental organization which, amongst other things, would set uniform boundaries and lists environmental protection measures."³⁷ It might seem strange to see Shell advocate strong regulations but these were clearly in the interest of any multinational company – without international limits there would no longer be a level playing field. And a specific worry for Dutch Shell: what if Dutch rules proved stricter than those in neighboring countries? The rest of this techno-optimistic booklet was *defensive* in nature (look at what we're already doing!), but Shell's detractors were not convinced. In a brochure with the exact same title as Shell's the anonymous authors who called themselves 'werkgroep olie-nood' (working group oil-alarm) annotated the original text, zooming in specifically on parts

natural, historical, and cultural spaces. The representational petroleumscape constructs space and identity as well as culture in and for spaces far beyond the ones that they actually occupy. For the general public, these publicities constructed a feedback loop that clearly tied the petroleum actors to freedom of driving and the joy of leisure." Hein, "Oil Spaces", 920 (cf. note 8).

³⁷ *Shell en het leefmilieu, het leefmilieu en Shell* (Rotterdam: Shell, 1970), 5.

where the company tried to shift the responsibility for environmental issues from the industry to individual citizens.

26 The 1970 Shell brochure was not always subtle in that respect (“Educating Dutch citizens to become environmentally conscious sometimes seems to be the most pressing environmental problem in this country”³⁸) but the *Shell Journals* took a more cautious approach. Yet, introducing the 1979 issue on Dutch trees, the collective assignment Shell put in its preface (“It is up to this generation to care for trees in such a way later generations will be able to say that we, in the 20th Century, gave them the care they deserve”³⁹) conveniently left out any mentioning of industrial products or activities that have proven very harmful to trees. It is a telling difference: whereas the 1970 brochure was a PR ploy aimed at both recuperating the environmental consciousness of the era and pushing back at criticism Shell had had to endure in this respect, the issues of *Shell Journaal* linked the company to those aspects of Dutch (or for that matter: any) life – trees, water, birds – no person in their right mind would criticize. And by systematically focusing on the Dutchness of those trees and wetlands Shell presented itself not only as a promotor but even as a *guardian* of all good things local, nature very much included.

27 Shell’s guardianship is not only rhetorical. Especially when it comes to Dutch Masters, a key component of Dutch heritage and tourism, the company has a decades old tradition of financial aid and research. In 1990 they sponsored the Mauritshuis’ exhibition *Dutch Masters from America*; twenty years later they financed an extension to the museum, tellingly called the Royal Dutch Shell Wing. As part of Shell’s ‘Partners in Science’ project the museum’s restoration team worked closely with the renowned Shell Technology Centre Amsterdam (STCA), as did from 2000 to 2018 the Van Gogh Museum and the Rijksdienst voor het Cultureel

Erfgoed (RCE, Cultural Heritage Agency of the Netherlands) in a systematic effort to analyze the Van Gogh paintings in their collection made in Paris, Arles, Saint-Rémy and Auvers-sur-Oise. In a press release about the joint Van Gogh research project Shell Netherlands CEO Marjan van Loon emphasized how proud she was to have contributed to preserving “an important part of Dutch cultural heritage”.⁴⁰

“THESE ARE GREAT PEOPLE.” ARTISTS AND INTELLECTUALS & SHELL

4.1 A Picture of Shell

If there is such a thing as *high* petroculture, Shell 28 is certainly part of that too in the Netherlands. Filmmakers, poets, prose writers... some of the Netherlands’ most famous artists have worked for or on Shell. Joris Ivens (1898-1989) and Bert Haanstra (1916-1997), arguably the country’s most renowned documentary filmmakers, made what was called *Shell Films*. Iven’s *Oil for Aladdin’s Lamp* (1941) only survives in a 1949 re-edit, a techno optimist display of products and gadgets which are oil-based; a World War II-propaganda effort which Ivens did not really care about, apparently.⁴¹

Haanstra, on the other hand, worked over a 29 decade for Shell and he considered these years and the many films he worked on for the company as a crucial phase in his career. No wonder, the London based Shell Film Unit seemed to have unlimited resources, was explicitly not supposed to make promotional films, and guaranteed an audience of millions for these documentaries, as they were shown on ships, in prisons, canteens, and schools. In the Netherlands every year about

⁴⁰ Carolien Terlien, “Meesterlijk partnerschap”, *Shell Venster*, n° 3, 2014, 22-26; “‘Partner in Science’ Van Gogh Museum; alle late schilderijen van Van Gogh zijn onderzocht”, *Shell*, 10/08/2018. Url: <https://www.shell.nl/media/persberichten/2018-media-releases/partner-in-science.html> (accessed 12/06/ 2023).

⁴¹ “Shell’s Wildest Dreams”, *European Foundation Joris Ivens*. Url: <https://ivens.nl/en/home/177-shell-s-wildest-dreams> (accessed 12/06/2023); Joris Ivens, *Oil for Aladdin’s Lamp* (1949 Ca.), YouTube, 07/01/2022. Url: <https://www.youtube.com/watch?v=SouSnXwgsto> (accessed 12/06/2023).

³⁸ Ibid., 30.

³⁹ Shell Nederland B.V., “Ten geleide”, in Jaap Hage, *Shell-journaal van Nederlandse bomen* (Rotterdam: Shell, 1979), 5.

a million people watched a Shell film. Brilliant displays of petroculture they were, not aimed at selling products directly, yet obviously showing the Shell logo and informing the audience, as in science films, about the history and wonders of petroleum or other Shell products these films project an image of progress, heroism and service. *The Rival World*, a 1955 full color film presenting insects in close-up as never before, is actually about how dangerous a pest they are and, thus, about the urgent need for insecticides. *The Changing Earth* (1953), *The Search for Oil* (1953), *The Wildcat* (1953) and *The Oilfield* (1954), a series about all stages of oil production, filmed in Indonesia, presents this enterprise as a mix of exploration, scientific rigor and determination. *Dike Builders* (1952) shows age-old techniques and hard manual labor, but is also about a new method of dike building with asphalt. Considering the eternal, nation-defining battle against water in the Netherlands it is also a clear example of banal nationalism – here as well reinforcing the idea that Shell is looking out for the Dutch.⁴²

31 Shell knew who to hire to document its activities. When their Amsterdam Laboratory celebrated its fiftieth year Sybren Polet and Carel Blazer were asked to produce a coffee table book about the working methods of the lab. Photographer Blazer (1911-1980) had documented the labor struggles of the thirties and, as a resistance man, the misery of the war years. Sybren Polet (1924-2015) stands to this day as one of the foremost experimental writers in the Dutch language – a major literary award for that type of literature is named after him. In *Verkenning in het onbekende* (Exploration into the unknown, 1964) Polet would explicitly link his working methods with those of the scientists in the lab. Working at Shell's is also about *creativity*, he emphasizes, often “the result of intuition; science comes later, when a phenomenon needs to be explained. Everybody in the business of creation, whether an artist or

scientist, will admit frankly to the share of intuition.”⁴³ Thanks to Polet Shell could add a certain *je ne sais quoi* avant-garde vibe to its image of service, progress and success. It should be clear to all: this firm was cutting edge.

Histories of Shell

Ever conscious of its outside image and proud of its heritage, Shell has instigated two of the most impressive non-governmental Dutch historiographical projects of the last hundred years: twice they asked prominent Dutch historians to write its history. The first one was written by Frederik Carel Gerretson (1884-1958), who also published poetry as Geerten Gossaert. In 1917 Gerretson became Colijn's secretary at the Bataafsche Petroleum Maatschappij (BPM) and it was that same future prime minister who in 1922 asked him to write a *Geschiedenis der Koninklijke* (History of the royal one) which he ended up publishing in three volumes (1932, 1936, 1941).⁴⁴ Gerretson did most of the research and writing for these volumes while he was extraordinary professor of ‘Old and Younger History of the Dutch East-Indies and Comparative Colonial History’ at Utrecht University, a special chair endowed by colonial businesses in the Dutch East Indies, Shell subsidiary BPM in particular.⁴⁵

In 2007, a century after BPM was established, a new multivolume *History of Royal Dutch Shell* was published, again produced at the behest of the company at Utrecht University. Both projects exist in a Dutch and English version, all of them published by prominent houses.⁴⁶

Gerrit Krol and Shell

When in 1950 Gerretson was awarded the very prestigious Constantijn Huygens award for literature the jury explicitly mentioned his

⁴² Paragraph based on the films mentioned in the text and Hans Schoots, *Bert Haanstra. Filmer van Nederland* (Amsterdam: Mets & Schilt, 2009), 81-89. For the Dutch nation defining relationship to water, see Tracy Metz and Maartje van den Heuvel, *Sweet & Salt: Water and the Dutch* (Rotterdam: New York: NAI Publishers, 2012).

⁴³ Sybren Polet, Carel Blazer, *Verkenning in het onbekende. Vijftig jaar Koninklijke Shell Laboratorium* (Koninklijke Shell Laboratorium, 1964), 15.

⁴⁴ Volumes four and five were published posthumously in 1973, based on Gerretson's extensive notes. The first volumes went through several editions in the 1930s and early 1940s.

⁴⁵ Information obtained via Parlement.com.

⁴⁶ Joost Jonker et al., *A History of Royal Dutch Shell*, 4 vols (Oxford: Oxford University Press, 2007).

“monumental” Shell history. Thirty six years later his colleague Gerrit Krol (1934–2013) was awarded the same award, but maybe he wouldn’t be able to come collect it, a newspaper wrote, because his employer Shell had just sent him to Nigeria. Not a trivial addition to the article, because Shell features heavily in Krol’s deconstructed autobiographies. His Nigeria stint would end up inspiring his 1994 novel *Okoka’s Wonderpark*, though despite its oil theme Shell was not mentioned there. That hadn’t always been the case. In 2001 Krol was awarded the even more prestigious P.C. Hooftprijs and to celebrate, his publishing house Querido collected his Shell-themed works – three stories and three novels – in a volume tellingly entitled *Krol & de Koninklijke* (Krol and the royal one).



Figure 1: The cover of a Krol novel, designed by Boudewijn Ietswaart.

Despite featuring Shell’s logo on its cover (see figure 1) the title of the oldest of these – 1973’s *De chauffeur verveelt zich* (The driver is bored) – presents itself as potentially petrocritical. The driver’s boredom however is never mentioned nor explained.⁴⁷ Quite early on the author describes his book as being about “an excess. Luxury. Uselessness of a person producing that luxury” but many more parts of the book seem to revel in that luxury, more specifically the luxury of automobiles, machinery, and technology.⁴⁸ The narrator wants his book to be about “the goal I set for myself in life”, but it remains up to the reader to figure out what that goal could be.⁴⁹ It might have to do with beauty or, judging from the next passage, the technological sublime: “I wanted to write poems so badly and I was of the opinion I needed a suitable environment to do so. / Three, four fuel trucks in a row on the road.”⁵⁰ Interpreted as a poem which omits crucial information, this passage might also be read as ‘How I Ended Up Working For Shell’, Shell apparently being the place or producer of environments suitable to writing poetry. The sheer beauty of their machinery sometimes seemed to cast a spell.

At some point the narrator is sent to Sicily as part of a crew building a chemical plant. “When the job was done and the scaffolding was taken down and the thing stood there naked and glowing on the plane I almost vomited from happiness.”⁵¹ This was modernity for you: the promise of progress and economic growth through the sheer elegance of modern shiny objects and technology. The narrator, as Krol a scientist very much into logic, math and automation, tends to pose big questions and rarely shies away from answering them. “What is the function of a human being? A link in the automation

⁴⁷ See also Ad Zuiderent, *Een dartele geest: aspecten van De chauffeur verveelt zich en ander werk van Gerrit Krol* (Amsterdam: Querido, 1989), 212. Chapter 4 of this close reading of the novel tries to explain the title.

⁴⁸ Gerrit Krol, *De chauffeur verveelt zich* (Amsterdam: Querido, 1973), 11.

⁴⁹ *Ibid.*, 70.

⁵⁰ *Id.*

⁵¹ *Ibid.*, 37.

lying on its back and floating on the blue, tepid waves, hands to the side as fins, almost immobile, and *unable to stop enjoying*.⁵² A philosophical riddle also related to petroculture for sure, as this very modern type of *dolce far niente* was only made possible through fossil fuels (and the exploitation of countries and people to extract them). Not to say that there isn't any ambivalence in him, but it is very hard if not impossible to determine where the irony starts or ends. "My desire to be a productive member of society or, sometimes, unnecessarily, to destroy this society. I can do both."⁵³ Maybe he can, but he does not change jobs.

36 Krol's next book, *In dienst van de 'koninklijke'* (lit: in the service of the 'royal one'; or: employee of the 'royal one', 1974), is even more Shell-centric. The back cover shows the author on what appears to be an oil rig, in front of a KLM helicopter. The caption reads: "The function of this book? Shell has no use for it. Despite it being one of her employees' purest thoughts c.q. motivations". On the first page of the book its publisher (or the author himself?) adds that it should be read as "a 'success-story', without it being clear whether the main character really accomplishes anything. It is the story of a dreamer molding the world to his will. It is an authentic description of what we tend to call a 'poet'" – again a description which might turn the whole book into an exercise in irony. How could you see yourself as someone molding the world to your will if you are a Shell employee? Krol seems to want to suggest he uses Shell – because the company turns out to be a great source of inspiration – but, of course, he very well knows it's a two-way street. "[M]y profession – optimizing the daily operations of a subsidiary".⁵⁴ And in *La Concepción* (Bolivia) he is part of an endeavor which – seen in the light of the Groningen debacle – has a very peculiar ring to it: "These numbers had to prove this subsidence and these floodings were not the result

of oil production, but of something else..."⁵⁵ Of course, one should never equate narrator and biographical author, but are readers supposed to experience this book as the total opposite of a success-story, as the apologetic musings of a failure? "Autonomy, that was what I wanted; to develop the capacity to build something, something also to be categorized in terms like freedom, glory and right."⁵⁶ To which he adds: "Lots has been said about these words, I should use them more often."⁵⁷ Which, of course, he never again does.

Krol's third book about Shell is actually 37 more about NAM (as was mentioned before: Nederlandse Aardolie Maatschappij, jointly owned by Shell and Exxon). *60.000 hours* (1998) is explicitly presented as *An Autobiography* of the years he worked in the local gas extraction business. Again his assignment is to automate crucial work processes and, judging from this book, he does so with great results. A success story, after all. Socially as well. He is well liked by most of his colleagues and he likes them. Even more than that: "I love these people. They know what they are doing. The Groningen gas field is safe with them [is in good hands, gb]".⁵⁸ Considering the fact that five years before *60.000 hours* was published a NAM-cosponsored investigation had officially acknowledged that there was a correlation between earthquakes and gas extraction, this sounded more than a bit apologetic.⁵⁹

The most revealing part of Krol's quite extensive 38 critical and academic reception is that it never really deals with the nature of the companies he's working for and discussing in his books. He has been interpreted as a modernist or postmodernist, a neo-symbolist or neo-cubist, a writer obsessed with the tension between

52 Ibid., 47.

53 Ibid., 97.

54 Gerrit Krol, *In dienst van de 'Koninklijke'* (Amsterdam: Querido, 1974), 65.

55 Ibid., 71.

56 Ibid., 95.

57 Id.

58 Gerrit Krol, *60 000 uur. Een autobiografie* (Amsterdam: Querido, 1998), 44.

59 For the 1993 findings by the Supervisory Committee of Research into Earthquakes, see Parliamentary Committee, 34-35 (cf. note 1).

truth, reality and deception or structure, bureaucracy and organizations, but even this century the fact that Krol was working for Big Oil did not seem relevant.⁶⁰ Apparently high culture made it even easier to hide in plain sight.

TABLES ARE TURNING, HOUSES COLLAPSING

39 In October of 2018 Marcel Möring, ex-NAM-employee, an admirer of Krol's, and a prominent Dutch author in his own right, published an essay called 'De bel en ik' (lit: the [gas]field and me') in Shell quarterly *Venster*, deploring the end of an era. Yes, NAM should be criticized for its handling of the Groningen earthquake damage, but people should also realize what they were about to lose, now that the government had decided to discontinue the extraction of gas: jobs and everything NAM's 'gas culture' had represented. Möring also mentioned how generous a sponsor of local culture the company has been – "I myself received money a few times for exhibitions and art projects".⁶¹

40 By the late 2010s this type of nostalgia for the era of untroubled progress had become rare in Dutch high culture, however. Piet Hein van der Hoek's acclaimed and award-winning documentary *De Stille Beving* (lit: the silent quake, 2017) presents NAM in general and Shell's legal department in particular as a highly effective destroyer of houses, families, and people's health, prospects and faith in democratic institutions. In Groningen's Fieke Gosselaar's 2018 novel *Het land houdt van stilte* (lit: the land loves silence) NAM only pops up as a company

⁶⁰ Exception to this rule is the Marxist critic J.F. Vogelaar who wrote, after reading *In dienst van de 'Koninklijke'*: "It's typical that a man, writing a book about little games because he likes to think up rules of these games hoping they might make the world a bit more transparent [surveyable, gb], that when he writes about a game which is a bit larger in which he himself is a pawn (the worldwide web of oil groups) he applies the same scaling-down technique. This simplification might make everything more transparent [surveyable, gb], but not more clear." (J.F. Vogelaar, *Konfrontaties: Kritieken en commentaren* (Nijmegen: Socialistiese Uitgeverij Nijmegen, 1974), 59.

⁶¹ Marcel Möring, "De bel en ik", *Shell Venster*, n°4, 2018, 29.

trying to shirk its responsibilities.⁶² That same year Saskia Goldschmidt's Groningen earthquake novel *Schokland* (lit: shock land, or quake land) contained a remarkable number of scenes about local taciturn farmers in tears, devastated by what was done to their age old farms and by the crippling uncertainty as to when, how or even if they would be compensated for the damages.⁶³ When NAM experts assess the house of the farmer protagonists one of them boldly states: "De grond onder uw bestaan is prut" ["The ground beneath your existence is mud [trash]"] – a claim aimed at deflecting the firm's responsibility but also an insensitive appraisal of what was left of these people's lives.⁶⁴ As part of NAM Shell seems to have become the country's bogeyman, signaling a dramatic shift of its public image.

CONCLUSION: A TROUBLED LOVE AFFAIR

Indirectly, Royal Dutch Shell made Time Magazine's 2021 100 Most Influential People list through Dutch lawyer Roger Cox, who tries to use judicial means to protect the planet and who made world headlines with the May 26 2021 Dutch verdict against Shell. Years of greenwashing and soft power seemed to have no impact on the Dutch judge who forced this fossil fuel giant to reduce its emissions with 45% by 2030. A telling detail in *Duty of Care*, Nic Balthazar's 2022 documentary on Cox, is that the lawyer is married to the daughter of a Royal Dutch Shell engineer. Her family's holiday videos are packed with Shell people they met during their stays in Venezuela, Nigeria, Turkey, Bonaire and Malaysia. When environmentalists start pointing their arrows against the company the family is in shock: this is not the Shell they know! The Shell they know "doet hartstikke goeie dingen" (does terrific things)! These people had always been proud to be part of this global conglomerate, bringing energy and other vital products

⁶² Fieke Gosselaar, *Het land houdt van stilte* (Amsterdam: Ambo|Anthos, 2018), 7, 33, 100-101.

⁶³ Devastated Groningen farmers in Saskia Goldschmidt, *Schokland* (Amsterdam: Cossee, 2018), 73, 74, 77, 80, 153, 241, 254 and 273.

⁶⁴ *Ibid.*, 91.

to people all over the world. The cognitive dissonance they have struggled with can be seen as a *pars pro toto* of the troubled love affair the Dutch have grown to have with this company.

42 The sheer number of Dutch families that have relied on Shell salaries over the years but, more importantly, have felt part of this global adventure make for a substantial part of the Dutch population.⁶⁵ Add that to way the company has been sponsoring research into innovative technologies and its presence on highways, in tourism, and in popular and elite culture and one can begin to understand how ‘the royal one’ has felt like ‘our royal one’ to many people in the country. Yet, today Cox’s mother-in-law supports his struggle against Shell, as did at least 17.000 Dutch citizens on whose behalf the case was filed; it was a Dutch judge who convicted the company. And it was in the Netherlands that Chihiro Geuzebroek started #shellmustfall. A brainwashing instrument banal petroculture is not. The era of hiding in plain sight might be over.

Of course, whether this also implies that Shell’s grip on the Dutch elite is over remains to be seen. Yet, an interview early in 2023 in *NRC*, the Dutch paper of record, with former CEO Jeroen van der Veer might be a sign of the times. In the 1990s, Van der Veer recalled, every cabinet minister, leading public servant or journalist would jump when they received a Shell invitation. Today these types of people try very much *not* to be seen with the current CEO of the company. Leading companies apparently have become wary of hiring retired Shell people as members of the board. “As if it is something really bad to work for Shell,” Van der Veer remarked in utter disbelief.⁶⁶

Another writing on the wall might be the 43 Parliamentary Committee’s labelling of the oil companies’ request to be “compensated for loss of income due to the expedited scaling down of gas extraction” as “unjustified”.⁶⁷ Yet, while Shell seems to have fallen from grace, its financial power has only increased over the last years.⁶⁸ What they lost in soft power, they probably manage to compensate with hard cash.

⁶⁵ Shell Netherlands employed 8.500 people in 1948, around 20.000 in the 1970s and about 10.000 in the early 2000s. See Jan Luiten van Zanden, *Geschiedenis van Koninklijke Shell*, vol. 4, *Bijlagen, cijfers, toelichting, volledige bibliografie en index* (Amsterdam: Boom, 2007), 88-89.

⁶⁶ Chris Hensen, Erik van der Walle, “Oud-topman van Shell Jeroen van der Veer: ‘Het is alsof het iets ergs is als je voor Shell werkt’”, *NRC*, 21 January 2023.

⁶⁷ Parliamentary Committee of Inquiry, 76 (cf. note 1).

⁶⁸ Ron Bousso, Shadia Nasralla, “Shell 2022 Profit More than Doubles to Record \$40 Bln”, *Reuters (section Energy)*, 02/02/2023. Url: <https://www.reuters.com/business/energy/shell-makes-record-40-billion-annual-profit-2023-02-02/> (accessed 15/03/ 2023).

Bibliography

Balthazar Nic (dir. by)

Duty of Care (Wistoria, 2022).

Billig Michael

Banal Nationalism (London; Thousand Oaks, Calif: Sage, 1995).

Bolkestein Frits

Cassandra tegen wil en dank. Memoires (Amsterdam: Prometheus/Bert Bakker, 2013).

Bos Wouter

Dit land kan zoveel beter (Amsterdam: Bert Bakker, 2005).

Bouso Ron, Nasralla Shadia

“Shell 2022 Profit More than Doubles to Record \$40 Bln”, *Reuters* (section Energy), 02/02/2023. Url: <https://www.reuters.com/business/energy/shell-makes-record-40-billion-annual-profit-2023-02-02/> (accessed 15/03/2023).

“Paul Schnabel”, *Brandpunt Profiel*, 19/02/ 2012. Url: https://www.npostart.nl/profiel/19-02-2012/POW_00445545 (accessed 12/06/2023)

Cummins Ian, Beasant John

Shell Shock: The Secrets and Spin of an Oil Giant (Edinburgh: Mainstream Pub, 2005).

Didde René, Duivenvoorden Ben, Duyvendak Wijnand, van Gelder Jan Willem, Post Rutger (red.)

Als het tij keert. Shell en Nederland, macht & verbeelding (Amsterdam: Ravijn, 1989).

Dohmen Jean

“Oliegigant Shell is staat in de staat”, *EWmagazine.nl*, 26/06/2018. Url: <https://www.ewmagazine.nl/economie/achtergrond/2018/06/oliegigant-shell-is-staat-in-eeen-staat-136892w/> (accessed 12/06/2023).

Doyle Jack (ed.)

Riding the Dragon : Royal Dutch Shell & the Fossil Fire (Boston, Mass.: Environmental Health Fund, 2002).

Fuchs J.M.

Shell journal van Hollands water, (Rotterdam: Shell Nederland Verkoopmaatschappij/Shell Nederland Chemie, 1970).

Gerretson Frederik Carel

Geschiedenis der ‘Koninklijke’, 5 vols (Baarn: Bosch & Keuning, 1971).

Goldschmidt Saskia

Schokland (Amsterdam: Cossee, 2018).

Gosselaar Fieke

Het land houdt van stilte (Amsterdam: Ambo|Anthos, 2018).

Haanstra Bert (dir. by)

Strijd zonder einde; Dijkbouw; Ontstaan en vergaan; De opsporing van aardolie; De verkenningsboring; Het olieveld (Just Entertainment, 2007).

Hage Jaap

Shell-journaal van Nederlandse bomen(Rotterdam: Shell Nederland, 1979).

Hein Carola

“Oil Spaces: The Global Petroleumscape in the Rotterdam/ The Hague Area”, *Journal of Urban History*, vol. 44, n° 5, 2018, 887–929.

Hensen Chris, Erik van der Walle

“Oud-topman van Shell Jeroen van der Veer: ‘Het is alsof het iets ergs is als je voor Shell werkt’”, *NRC*, 21 January 2023.

van der Hoek Piet Hein (dir. by)

De stille beving (Dutch Broadcasting Company, RTV-Noord and NTR, 2017).

Hoffman Hans

“Je bent een brave hond als je niet blaft”, in René Didde et. al. (red.), *Als het tij keert: Shell en Nederland, macht & verbeelding* (Amsterdam: Ravijn, 1989), 24–33.

Hofstede Peter

“Hymne van Madurodam”, *Langs de rails*. Url: https://www.nico-spilt.com/index_Madurodam.htm (accessed 16/08/2023).

Howarth Stephen, Jonker Joost

Geschiedenis van Koninklijke Shell, vol. 2, *Stuwmotor van de koolwaterstofrevolutie, 1939-1973* (Amsterdam: Boom, 2007).

Huizinga Leonhard

Shell natuurwizer: een twaalf-provinciën rhapsodie (Den Haag: Shell Nederland Verkoopmaatschappij, 1961).

Ivens Joris (dir. by)

Oil for Aladdin's Lamp (1949 ca.), *YouTube*, 07/01/2020. Url: <https://www.youtube.com/watch?v=SouSnXwgsto> (accessed 12/06/2023).

Jonker Joost, van Zanden J.L., Howarth Stephen, Sluyterman Keetie E.

A History of Royal Dutch Shell (Oxford: Oxford University Press, 2007).

Krol Gerrit

60 000 uur. Een autobiografie (Amsterdam: Querido, 1998).

De chauffeur verveelt zich (Amsterdam: Querido, 1973).

In dienst van de ‘Koninklijke’ (Amsterdam: Querido, 1974).

Krol & de Koninklijke (Amsterdam: Querido, 2001).

Okoka's wonderpark (Amsterdam: Querido, 1994).

Markus Niels

“Het aantal Haagse politici met Shell op hun cv is overweldigend”, *Trouw*, 16 November 2021.

Metz Tracy, van den Heuvel Maartje

Sweet & Salt: Water and the Dutch (Rotterdam : New York: NAI Publishers, 2012).

Metze Marcel

Hoog spel. De politieke biografie van Shell (Amsterdam: Balans, 2023).

Möring Marcel

“De bel en ik”, *Shell Venster*, n°4, 2018, 25–29.

Okonta Ike, Oronto Douglas

Where Vultures Feast: Shell, Human Rights, and Oil in the Niger Delta (San Francisco: Sierra Club Books, 2001).

Omoweh Daniel A.

Shell Petroleum Development Company, the State and Underdevelopment of Nigeria's Niger Delta: A Study in Environmental Degradation (Trenton, NJ: Africa World Press, 2005).

Parlementaire enquêtecommissie aardgaswinning Groningen, *Groningers boven gas*, 5 vols (The Hague: Tweede Kamer der Staten-Generaal, 2023).

Parliamentary Committee of Inquiry into Natural Gas Extraction in Groningen, *Groningers before Gas*, vol. 1, *Conclusions and recommendations*, (The Hague: Tweede Kamer der Staten-Generaal, 2023).

“Partner in Science’ Van Gogh Museum; alle late schilderijen van Van Gogh zijn onderzocht”, *Shell*, 10/08/2018. Url: <https://www.shell.nl/media/persberichten/2018-media-releases/partner-in-science.html> (accessed 12/06/2023)

Plets Gertjan, Kuijt Marin

“Gas, Oil and Heritage: Well-Oiled Histories and Corporate Sponsorship in Dutch Museums (1990–2021)”, *BMGN-Low Countries Historical Review*, vol. 137, n°1, 2022, 50–77.

Polet Sybren, Blazer Carel

Verkenning in het onbekende. Vijftig jaar Koninklijke Shell Laboratorium (Koninklijke Shell Laboratorium, 1964).

Schoots Hans

Bert Haanstra. Filmer van Nederland (Amsterdam: Mets & Schilt, 2009).

Shell en het leefmilieu, het leefmilieu en Shell (Rotterdam: Shell, 1970).

Shell en het leefmilieu, het leefmilieu en Shell (Nederland: Werkgroep Olie-Nood, 1971).

“Shell’s Wildest Dreams – European Foundation Joris Ivens”, *European Foundation Joris Ivens*. Url: <https://ivens.nl/en/home/177-shell-s-wildest-dreams> (accessed 12/06/2023).

Sluyterman Keetie E.

“Royal Dutch Shell: Company Strategies for Dealing with Environmental Issues”, *Business History Review*, vol. 84, n°2, 2010, 203–226.

Geschiedenis van Koninklijke Shell, vol. 3, *Concurreren in turbulente markten, 1973–2007* (Amsterdam: Boom, 2007).

Terlien Carolien

“Meesterlijk partnerschap”, *Shell Venster*, n°3, 2014, 22–26.

Tielbeke Jaap, van de Ven Coen

“De minister van groene verleiding. Profiel: Rob Jetten”, *De Groene Amsterdammer*, 6 July 2022.

van den Berg Jurre

“Hoe Nederlandse wetenschappers zich decennialang verkeken op de gevaren van gaswinning in Groningen”, *de Volkskrant*, 7 October 2022.

van Zanden J.L.

Geschiedenis van Koninklijke Shell, vol. 4, *Bijlagen, cijfers, toelichting, volledige bibliografie en index* (Amsterdam: Boom, 2007).

Vogelaar Jacq Firmin

Konfrontaties: Kritieken en commentaren (Nijmegen: Socialistiese Uitgeverij Nijmegen, 1974).

Wilson Sheena, Carlson Adam, Szeman Imre (eds.)

Petrocultures: Oil, Politics, Culture (Montreal; Chicago: McGill-Queen’s University Press, 2017).

Wolfert Sinaya

Curaçao: Life with an Oil Refinery (Amsterdam: Sinaya Wolfert Fotografie, 2019).

Zuiderent Ad

Een dartele geest: Aspecten van De chauffeur verveelt zich en ander werk van Gerrit Krol (Amsterdam: Querido, 1989).

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Oceanic irrationalism. Danish petrofiction below the surface

Abstract

This article ventures seaward to examine how two contemporary Danish novels paradoxically uses irrational features to make visible the existent opacity and mythology of oil. Respectively, the novel *På ryggen af en tyr* (2014; *On the Back of a Bull*) by Kristina Stoltz employs gothic sentiments to reveal a 'realer, if darker,' oil reality, while *Aftenstjerne* (2019; *Night Star*) by Aske Juul Christiansen uses Nordic seafarer and explorer mythology to display and displace a dialectic of oil invisibility and materiality at sea. Thus, this article concludes that these novels contribute to a regionally specific critique of the modern world-system of fossil capitalism. I suggest designating this corpus of oceanic irrationalism as Danish North Sea World Literature.

Plan of the article

- Oceanic blankness and offshore petroleumscapes
- Oceanic frontierism in *Aftenstjerne*
- Oil materiality
- Oceanic ecocriticism\$ and gothic sentiments
- The poltergeist of extractivism
- Conclusion: North Sea world literature

Whatever the future genres of oil fiction, we need to keep looking to the waters that carry some of oil's worst external costs.

Stephanie LeMenager, *Living Oil*

- 1 This article examines how offshore extraction is disclosed in two contemporary works of irrealist petrofiction from Denmark. Stephanie LeMenager's lucid call to "keep looking to the waters"¹ guides my venture offshore as water often accentuates what Frederick Buell famously has called the culture of oil's "marriage of catastrophe and exuberance."² In the ocean deposits there are an exorbitant amount of fossil fuels, but the waterways are also "the sites where the destructive capacity of oil is made visible."³ Oil and water do not mix. Curiously, the two texts at hand register this fact of uneasy relationality between the two substances by way of their employment of irreal features.

Bag dine øjne flyder det sorte hav. Du ser havfuglene der ikke kan lette. De hvide fjer smurt ind i det sorte. Fiskene der vender bugen mod himlen, som om de tager solbad. Men skyerne ovenover er allerede på vej videre.

(Behind your eyes the black sea flows. You see seabirds unable to take off. The white feathers greased in blackness. The fish turning belly up against the sky as if they are sunbathing. But the clouds are already heading onwards.)⁴

- 2 These are the first lines of Danish author Kristina Stoltz' novel *På ryggen af en tyr* (2014; *On the Back of a Bull*). The novel is an odd, irreal tale

about a young girl, Fanny, who travels with her mother to a summer resort near a beach. An old seaside hotel – "almost resembling a castle"⁵ – sits rather gothically on top of a cliff and behind it the roaring ocean lies. These are the eerie narrative coordinates of the novel: the beach, the hotel, and the ocean where the supertanker North Oil constantly appears on the horizon. As it figures from the quotation, a strange chorus opens the novel with an ominous address. Fittingly, the genre description printed on the front of the novel is "a tragedy." However, deviating from its Greek heritage, this address is aimed directly at the protagonist Fanny – "*this you see, Fanny, as soon as you open your eyes*"⁶ – rather than the reader. The mystical aura of prophecy or premonition, the sombre tone, and the double layer of figurative and literal speech – for example "*open your eyes*" – is however intact. The central position of a recurrent choir in the narrative as well as the description of the work as a tragedy point towards a certain genre orientation while the gothic features work to expose a "'realer,' if darker, reality."⁷

A similar instance of retrofitting or innovating a genre convention is present in the peculiar logbook oilnovel *Aftenstjerne* (2019; *Night Star*) by Aske Juul Christiansen. This novel revolves around different geographical sites of oil and gas frontierism but in this analysis I explicitly focus on the scenes taking place offshore. The novel is polyphonic and without a progressing plot. Instead, the reader is introduced to scenarios played out at a number of different nodal points in the global network of oil: from the Greenland Sea to Doha and the Ross Ice Shelf and several sites in between. While it takes on the shape of a logbook, the entries are not written by a single subject but by a collective of oil workers in different occupations. The logbook feature of the book employs the cultural

¹ Stephanie LeMenager, *Living Oil: Petroleum Culture In the American Century*, (Oxford: Oxford University Press, 2016), 137.

² Frederick Buell, "A Short History of Oil Cultures: Or, the Marriage of Catastrophe and Exuberance", *Journal of American Studies*, vol. 46, n° 2, 2012.

³ Kirsty Robertson, "Oil Futures/Petrotextiles", in Sheena Wilson, Adam Carlson and Imre Szeman (eds.), *Petrocultures: Oil, Politics, Culture* (Montreal & Kingston: McGill-Queen's University Press, 2017), 242.

⁴ Kristina Stoltz, *På ryggen af en tyr* (Copenhagen: Rosinante, 2014), 7. This and all the following quotations of the novel are in my translation. Original italics.

⁵ Ibid., 9.

⁶ Ibid., 7. Original italics.

⁷ Justin D. Edwards, Rune Graulund, Johan Höglund, "Introduction: Gothic in the Anthropocene," in Justin D. Edwards, Rune Graulund and Johan Höglund (eds.), *Dark Scenes from Damaged Earth: The Gothic Anthropocene*, (Minneapolis: University of Minnesota Press, 2022), ix.

heritage of explorer narratives – a form with a long tradition in the Nordic countries – as it resembles journal logbooks of expeditions like naturalist Charles Darwin’s *The Voyage of the Beagle* (1839) or the works by the Danish polar explorer Knud Rasmussen (1879–1933). Mixing the form as well as the sentiments of Darwin’s geological and Rasmussen’s anthropological surveys, Christiansen’s novel however twist the logbook form towards an irrealist register as the novel direct its attention around the curious case of oil: rather than an explorer character, the main character of the novel is oil itself as oil has a fundamental effect on the workers oriented towards it.

4 Since its advent as a school of thought, petroculture scholars have studied the ‘out of sight, out of mind’-paradigm of modern fossil dependency.⁸ The two novels here, I argue, contribute to this current discussion of exposing the estrangement of oil. They do so by way of redressing the gothic genre fiction as well as through an aesthetic re-enactment of centuries old features of explorer mythology. Thus, both novels make use of a curious mixture of explorer mythology, gothic sentiments, and material megastructures to display and displace a dialectic of oil invisibility and materiality at sea.

5 Irrealism, the Warwick Research Collective (WReC) argues in their proposal for a new theory of world literature, is a formal feature defined by its “anti-linear plot lines, meta-narratorial devices, un-rounded characters, unreliable narrators, contradictory points of view, and so on.” Therefore, they go on, this form cannot solely be classified as a “Euro-American literary formation typically addressed under the name of

⁸ E.g. Patricia Yaeger’s inaugural concept ‘Energy Unconscious’ in Patricia Yaeger *et al.*, “Editor’s Column: Literature in the Ages of Wood, Tallow, Coal, Whale Oil, Gasoline, Atomic Power, and Other Energy Sources,” *PMLA*, vol. 126, n° 2, 2011; Bob Johnson’s ‘Janus-face’-variant, Bob Johnson, *Mineral Rites: An Archaeology of the Fossil Economy* (Baltimore: Johns Hopkins University Press, 2019), and Macdonald’s ‘world-ecological’ examination of ‘the pipeline imaginary’ in Graeme Macdonald, “Containing Oil: The Pipeline in Petroculture,” in Wilson, Carlson and Szeman (eds.), *Petrocultures: Oil, Politics, Culture*.

‘modernism.’”⁹ Irrealism is rather to be understood as a particular aesthetic registration and reaction to the structural organisations of capitalism. More precisely, they argue that irrealism is a genre that allegorically depicts the resource frontierism that has and still continues to result in human and ecologically destructive instances of colonialism, imperialism, and world capitalism. Thus, for the WReC, instances of irrealism are “discernible wherever literary works are composed that mediate the lived experience of capitalism’s bewildering creative destruction (or destructive creation).”¹⁰ Of importance for the Nordic region in question here, Graeme Macdonald moreover argues that the cultural representation of North Sea oil has always been inclined to the speculative register.¹¹

As will become clear shortly, in the offshore petrofiction by Stoltz and Christiansen this is also the case as the waterways contain unreal elements such as folkloric creatures and fanciful mystique. Concerning the literary registration of North Sea oil and offshore oil in general, it is however fair to say that Danish authors have been less engaged than writers from other North Sea nations such as the United Kingdom and Norway.¹² Stoltz and Christiansen’s novels are Danish exceptions to the lacking engagement with offshore oil. Moreover, while both novels have a global or transregional scope, the content is formed by a combination of a distinctive Nordic maritime heritage of shipbuilding and

⁹ WReC: Warwick Research Collective, *Combined and Uneven Development: Towards a New Theory of World Literature* (Liverpool: Liverpool University Press, 2015), 51.

¹⁰ *Ibid.*

¹¹ Graeme Macdonald, “Dynamic Positioning: North Sea Petroculture’s Backwash,” in Fiona Polack and Danine Farquharson (eds.), *Cold Water Oil: Offshore Petroleum Cultures*, (London: Routledge, 2022), 67.

¹² E.g., John McGrath (UK), *The Cheviot, the Stag and the Black, Black Oil* (1973); Robert Alan Jamieson (UK), *Thin Wealth* (1986); China Miéville (UK), “Covehithe” (2011); Sidsel Mørck (NO), *Stumtjenere* (1978); Kjartan Fløgstad (NO), *Fyr og flame* (1980) and *Kron og mynt* (1998); and Øyvind Rimbereid (NO), *Solaris korrigert* (2004) and *Jimmen* (2011). Crime fiction novels, though, are an exception to this Danish reluctance to register the offshore head-on. Peter Høeg’s *Miss Smilla’s Feeling for Snow* (1992) is an example of this.

seafaring – of industrial production and pre-modern mythologically guided explorations at sea. In their effort to approach the inexplicable oil they thereby confirm WReC's world-literature argument that regional particularities shape the specific approach applied to grasp this very trans-regional matter. That is, the novels utilise "relevant formal properties of adjacent forms (often non-literary) within their local or regional cultural ecology."¹³

OCEANIC BLANKNESS AND OFFSHORE PETROLEUMSCAPES

7 According to Nancy Couling and Carola Hein, throughout the second half of the twentieth century, the oceans increasingly turned into petroleumscapes and the North Sea become "one of the most industrialised seas in the world."¹⁴ However, they write, this intense amount of oceanic "energy logistics" is partially concealed by a "conceptual void" in Western societies that goes back to the Scientific Revolution in Europe in the 1600s.¹⁵ They write: "Maritime cartography up to the sixteenth century had incorporated narrative features, expressing both real and imagined experiences at sea, but by the seventeenth century, the sea [...] had become largely empty." This development of emptying the oceans furthermore reflect the growing colonial and mercantile idea in Europe of "the sea as a place to exert and consolidate [...] political and economic strength." The sea itself was understood as a "non-developable void" only to be kept open for passages in order to secure "unhindered sea-borne trade" to the benefit of European states.¹⁶ Then, in the 20th C., fossil extraction rushed to the oceans:¹⁷ new deep sea discoveries sparked

instances of subsurface frontierism as "[f]igures of the boundless sea or the oceanic sublime encourage[d] humans to treat it as an inexhaustible storehouse of goods."¹⁸ The understanding of oceanic blankness fostered by the ambition of unhindered seaward commerce, however, lingers on today in the shape of obscurity as "corporations and nations control the spaces of oil and gas in secrecy and concealment, making it extremely difficult to *site* as well as *sight*."¹⁹

8 Rather than sustaining an understanding of the ocean as non-developable, oceanic blankness can therefore be said to serve another purpose today, namely that of concealing the deed of exploitation: "Since the 1940's, the majority of offshore platforms have been built out of sight of land. [...] This invisibility is a function of where oil and gas deposits are located but also of political, economic, and aesthetic considerations," Fiona Polack and Danine Farquharson write.²⁰ Couling and Hein concur as they write that when a "commodity is kept at a distance and its materiality negated, its cultural dimension becomes equally challenging to excavate."²¹ The media exposure of spectacular events such as the blowout on the offshore oil platform Deepwater Horizon in the Mexican Gulf in 2010 or the six-day obstruction of the Suez Canal by a container ship that ran aground in March, 2021 do however dent this narrative of seaside invisibility. Not to mention the damage the increasing display of plastic waste shoring or gathering in

¹³ See WReC: Warwick Research Collective, *Combined and Uneven Development*, 52 (cf. note 9).

¹⁴ Nancy Couling, Carola Hein, "Blankness: The Architectural Void of North Sea Energy Logistics," *Footprint*, vol.12, n° 23, 2018, 90.

¹⁵ *Ibid.*, 88.

¹⁶ *Id.* See also Nancy Couling, "The Offshore Petroleumscape: Grids, Gods, and Giants of the North Sea," in Carola Hein (ed.), *Oil Spaces: Exploring the Global Petroleumscape* (New York: Routledge, 2021), 110-112.

¹⁷ According to the National Ocean Industries Association (NOIA), offshore drilling tentatively took off in the 1890s,

modern seismology was developed in 1926 and in 1947 the first "out-off-sight of land" platform was built "mark[ing] the beginning of the modern offshore industry as it is known today." Url: <https://web.archive.org/web/20100806100254/http://www.noia.org/website/article.asp?id=123> (accessed 27/07/2023)

¹⁸ Patricia Yaeger, "Editor's Column: Sea Trash, Dark Pools, and the Tragedy of the Commons," *PMLA*, vol. 125, n° 3, 2010, 535.

¹⁹ Couling, Hein, "Blankness," 90 (cf. note 14). Original italics.

²⁰ Fiona Polack, Danine Farquharson, "Offshore Rig," in Imre Szeman, Jennifer Wenzel and Patricia Yaeger (eds.), *Fueling Culture: 101 Words for Energy and Environment* (New York: Fordham University Press, 2017), 253.

²¹ Couling, Hein, "Blankness," 90 (cf. note 14).

The Great Pacific Garbage Patch has done to the idea of oceanic blankness and serenity.²²

- 9 Apart from media exposures, Carola Hein's concept of the petroleumscape also works to counter the ingrained narrative of oceanic blankness with a focus on the sheer physicality of petroleum. In *Oil Spaces* (2021), she describes the concept like this: "the concept of the petroleumscape starts from the understanding that petroleum is a physical material with a pervasive impact on physical space in terms of architecture, cities, and landscapes, and is not a magic fluid that fuels economies without a spatial imprint."²³ Moreover, she writes that the concept illuminates how "the diverse spatial emanations of oil – including refineries, storage sites, office buildings, and gas stations – are connected through their relation to this single commodity and its group of industrial players."²⁴
- 10 With their insistent representation of offshore oil structures, the novels at question here likewise disrupt the 'magic' understanding of oil

²² For more on these destructive and/or obstructive oceanic event, see, for instance, EPA – United States Environmental Protection Agency, "Deepwater Horizon – BP Gulf of Mexico Oil Spill", EPA – United States Environmental Protection Agency (latest update: 14 January 2022). Url: <https://www.epa.gov/enforcement/deepwater-horizon-bp-gulf-mexico-oil-spill> (accessed 27/07/2023); Mary-Ann Russon, "The Cost of the Suez Canal Blockage," BBC, 30 March 2021. Url: <https://www.bbc.com/news/business-56559073> (accessed 27/07/2023); Laura Parker, "The Great Pacific Garbage Patch Isn't What You Think It Is," *National Geographic*, 22/03/ 2018. Url: <https://www.nationalgeographic.com/science/article/great-pacific-garbage-patch-plastics-environment> (accessed 27/07/2023). On oceanic waste, see also Yaeger, "Editor's Column: Sea Trash, Dark Pools, and the Tragedy of the Commons" (cf. note 18).

²³ Carola Hein, "Space, Time, and Oil: The Global Petroleumscape," in Carola Hein (ed.), *Oil Spaces: Exploring the Global Petroleumscape* (New York: Routledge, 2021), 4. See also Carola Hein, "Between Oil and Water. The Logistical Petroleumscape," in Neeraj Bhatia and Mary Casper (eds.), *The Petropolis of Tomorrow*, (New York: Actar Publishers, 2013); Carola Hein, "Oil Spaces: The Global Petroleumscape in the Rotterdam/The Hague Area," *Journal of Urban History*, vol. 44, n° 5, 2018; Carola Hein, "'Old Refineries Rarely Die': Port City Refineries as Key Nodes in the Global Petroleumscape," *Canadian Journal of History*, vol. 53, n° 3, 2018.

²⁴ Hein, "Space, Time, and Oil," 7 (cf. note 23).

as a seemingly immaterial energy source. In their effort to invoke the omnipresent but often obscure petroleumscapes, the novels consequently revert to what Couling and Hein describe as pre-1600s 'narrative features' such as mythical creatures and *unheimlich* mystique. As Graeme Macdonald writes, "to understand oil as cultural and material substance with fundamental ecological import means realizing its mystification in the societies of the Global North."²⁵ In Denmark, a North Sea nation of the Global North, this entails faring offshore where oil extraction started and still prevails. The novels, I propose, exactly use unreal features to register the mystification of oil, and hereby they expose what Bart Welling describes as the naturalised 'myth of Energy':

When the idea of hydrocarbons as Energy is incorporated into larger narrative structures, it helps mythmakers such as fossil fuel advertisers and government propagandists enact what Roland Barthes, in his classic study *Mythologies*, calls the 'very principle of myth': namely, that it 'transforms history into nature'. In other words, myth obscures the myriad human choices that have been involved in the production of a given phenomenon, making the development of the thing seem inevitable, and making the thing itself seem unchangeable. The myth of Energy naturalizes petroculture by persuading consumers [...] that fossil energy [...] is virtually as indispensable to our survival as the blood pumping through our cardiovascular systems.²⁶

The myth of Energy has, according to Welling, 11 naturalised and thereby also immaterialised oil and other fossil fuels. This, he goes on, has transformed the social history of exploitation, industrialisation, and fossil capital guided by the owners of the means of production into a tale of naturally determined development.²⁷

²⁵ Macdonald, "Containing Oil," 61 (cf. note 8).

²⁶ Bart H. Welling, "Petronarratology: A Bioregional Approach to Oil Stories," *English Studies*, vol. 99, n° 4, 2018, 446.

²⁷ On 'fossil capital,' see Andreas Malm's seminal book *Fossil Capital: The Rise of Steam Power and the Roots of Global Warming* (London: Verso, 2016). A further elaboration on the tale of fossil fuel as a naturally determined

Correspondingly, I read these novels as examples of literary subversion, contributing to the contemporary critical theory of petroculture in their effort to denaturalise oil and thereby return it to the realm of social history and materiality.

OCEANIC FRONTIERISM IN *AFTENSTJERNE*

12 As mentioned, Aske Juul Christiansen's novel *Aftenstjerne* from 2019 takes on the shape of a logbook written by a collective of oil workers in different occupations. As such, each portrayed site in the global oil network has its own narrator which gives the novel a distinctive choir-effect. Reading the novel, one experiences the different but same relation to oil as the widespread existence and world-wide dependence on fossil fuel is portrayed through site-specific prisms exposing inequalities of working conditions and rights.²⁸ This register of voices, however, also identifies a common ground in terms of a mythological superstructure built around oil. Likewise, throughout the sites oil seems to perform a conversion of the workers both physically and linguistic just as their cultural and empathetic attitude towards environmental damage is affected by their primary objective: to find and extract oil.

13 In this article, focus will be on the fragments of the novel that touches on offshore exploration and drilling predominantly in the North Sea and further North. Echoing the frontier ethos of ancient seafarers, these offshore entries of the novel lucidly confirm what Polack and Farquharson write about subsurface drilling: "In their use of overdetermined language of the frontier, and their emphasis on human ingenuity and technological prowess, accounts of drilling

in deep water and offshore Arctic locations resonate with Hegel's comment that 'the sea invites man to conquest.'²⁹ Moreover, the offshore frontierism expressed in the novel hinges on an irrealist feature of sea creature mythology that creates a curious dialog with the practice of naming oil fields in the North Sea. In this area, according to the Norwegian linguist Botolv Helleland, 45 percent of all oil and gas fields take their name after the Norse mythology while Nordic sagas and fairy tales take up their fair share of the rest.³⁰ This type of mythological naming – e.g. *Frøy, Odin, Frigg, Loke, Tyra, Freja, Gorm, Kraka* – Helleland goes on, reflects how the early "activities in the North Sea were surrounded by a certain atmosphere of pioneering." And, he says, the "sense of adventure is still strong."³¹

14 While the religious aspect of the mythology is replaced by a more worldly variant in *Aftenstjerne*, the mystical aura of inexplicability is intact. In a log from the Norwegian Sea, the reader for instance is confronted with this reflection of the ocean:

Vi kender overfladen, vi kan se bølgerne der slår mod skibet og mod kysten, og vi kan se vandet, der spreder sig glimtende ud imellem. Vi kan dykke ned, og se vandet som vi ikke ser luften, og så kan vi røre overfladen. Vi stopper der. Derunder er alt gået, derunder borer vi os til svar.

(We know the surface, we can see the waves striking the ship and against the shore, and we can see the water glisteningly spreading between. We can dive down and see the water as we can't see the air, and then we can touch

development are elegantly connected to the ubiquitous concept 'anthropocene' here; Andreas Malm and Alf Hornborg, "The Geology of Mankind? A Critique of the Anthropocene Narrative," *The Anthropocene Review*, vol. 1, n° 1, 2014.

²⁸ This is the case particularly in entries from Global South petroleum sites. The entries from Shaybah (Saudi Arabia), Doha (Qatar) and Ordos (China) especially revolve around this theme.

²⁹ Polack and Farquharson, "Offshore Rig," 252 (cf. note 20).

³⁰ See Couling, "The Offshore Petroleumscape," 118 (cf. note 16). See also Botolv Helleland, "Place-Names (Geographical Names) on and off the Coast of Western Norway: Names of Oil Fields Compared to Traditional Place-Names" (Sixth International Seminar on the Naming of Seas: Special Emphasis Concerning the East Sea, Seoul: Society for East Sea, 2000).

³¹ Helleland, "Short Place-Names (Geographical Names) on and off the Coast of Western Norway," 16 (cf. note 30).

the surface. There we stop. Below everything is speculation, below we drill for answers.)³²

- 15 Here we can see how a sort of oceanic blankness guides the perception of the oil workers exploring the ocean floor for fossil fuel deposits. They only know the surface. To know anything down below they must, “shoot pressured sound down in the hope of a meaningful answer. The answer is meaningful when the algorithms in Salvador has interpreted them and sent them back. Then they must correspond to reality.”³³ Another entry confirms this schism between surface and unknown underground: “I look into the control room and see new combinations of colour on the screen, so below us it moves, but not here, it’s the same surface over another deep and I smile still in the assumption that I know what is under us.”³⁴ To retain a feeling of value – or perhaps more important of irreplaceability – the narrator of the Norwegian Sea entries seems to tell himself that he can also sense what the semi-mythical computer in Salvador relays. More than anything, however, this entry is a registration of automation angst, of knowing that it is only a matter of time before your job is replaced by a robotic thingamabob.
- 16 The back cover of the novel fittingly describes the novel as “a book about oil, a compendium, a myth circle, and cartography; an intense poetic survey of the oil industry’s last days.” But whereas the maritime cartographies prior to the Scientific Revolution incorporated creatures and critters to provide dubious answers to the subsurface mystique, here the role of soothsayer befalls a technological creature – the algorithms in Salvador. For the oil workers in the Northern waters, one sense that the Brazilian city name of Salvador is uttered with a mythological tenor. One part admiration, one part anxiety. Moreover, the oil workers’ techno-mediated relation to the

seabed are echoed in Patricia Yaeger’s conceptualisation of contemporary human’s relationship to the sea. For although Yaeger argues that, historically, “our relation to the sea is always already technological,” she also writes that “late-capitalist seas are becoming more techno than ocean.” The perception of the massive bodies of water are in fact mediated to such an extent that they are best understood as “techno-oceans.”³⁵ In this light, it is unsurprising that an unfathomable techno-mythology guides the oil workers’ offshore passages. Victim to the digital machinery, reality at the techno-ocean is dictated in a binary fashion for the oil workers: fossil fuels or not is the only meaningful answer below the surface. At one point the narrator even thinks to himself that he has learned to read the data only to admit that he is lying to himself:

Jeg begynder at forstå de skrattede plamager på skærmene, det flade billede, et udsnit af undergrunden der er tyndt som papir, tyndere, det er todimensionelt. [...] Jeg tror jeg begynder at kunne se det uden dem [i Salvador], men jeg ved at jeg lyver for mig selv, for de andre, når jeg siger det i kantinen.

Jeg begynder at forstå dem.

De griner og vi kigger ud over havet sammen.

(I am beginning to understand the distorted blotches on the screens, the flat image, a slice of the underground as thin as paper, thinner, it is two-dimensional. [...] I think I am starting to be able to see it without them [in Salvador], but I know that I am lying to myself, to the others, when I say it in the canteen.

I am beginning to understand them.

They laugh and we look out at the ocean together.)³⁶

This experience of subsurface unintelligibility often lead the workers to succumb to the cultural legacy of seafarer mythology and folklore when describing the technical equipment: “The great yellow drums stand in a row. 24 lines

³² Aske Juul Christiansen, *Aftenstjerne* (Copenhagen: Arena, 2019), “10 / 6 / 16 Norskehavet”. This and all the following quotations of the novel are in my translation. The novel is not paginated, I therefore refer to the entries’ ‘date stamp.’

³³ *Ibid.*, “10 / 6 / 16 Norskehavet”.

³⁴ *Ibid.*, “3 / 7 / 16 Grønlandshavet”.

³⁵ Yaeger, “Editor’s Column: Sea Trash, Dark Pools, and the Tragedy of the Commons,” 526–527 (cf. note 18).

³⁶ Christiansen, *Aftenstjerne*, “10 / 6 / 16 Norskehavet” (cf. note 32).

stretching from them, one and a half kilometre behind us like the dragged tentacular of a jellyfish. To avoid stressing them as much as possible we must turn slowly, preferably we must let ourselves be led.”³⁷ The massive instruments like the lines designed to receive soundwaves retuning from the ocean floor are treated like sea creatures that must not be disturbed. Almost resembling the kraken, these giant squid-like tentacular keeps the oil workers at sea awake and working:

Sidevinden har oprørt bølgerne og rodet bøjernes liner sammen. Vi tager ud i små bade og fastgør linerne på siden og hører formandens leg med ledningerne skratte i radioen. Vi sejler bag hinanden, jeg står strukket over mig selv med linen i armene og løfter den til mit yderste punkt så den anden båd kan sejle under. Jon står med bådshagen og trykker linen under os så den ikke rammer skruen. Vi danser langsomt over hinandens tråde og indfinder os på vores række, sikker adskilte, vores hver især. Vi fortsætter i dagevis.

(The sidewind has upset the waves and messed up the lines of the buoys. We travel out in small boats and attach the lines to the side and hear the foreman’s play with the cords scratch over the radio. We sail behind each other, I stand stretched over myself with the line in my arms lifting it as far as possible so the other boat can sail under. Jon is standing with the boat hook pressing the line under us so it doesn’t hit the propeller. We slowly dance by each other’s lines and find our row, safely separated, each one our own.

We continue for days.)³⁸

18 It is a constant hassle appeasing this techno-jellyfish. The technological development is in no way a final domestication of the great and at times inhospitable ocean. Rather, the logs from the North Sea and the Norwegian Sea relays how the modern cartography of the oil corporations’ unrestrained appraisal of technology has not

erased the sea monsters. Even when the wind finally settles and the days with unleashing and rewinding the lines just replace each other, there is still a noir sense of something uncanny lurking and spoiling the break. In June, in the Arctic region the sun never sets. So the narrator of the Norwegian Sea logs is lacking sleep and the absence of rest plays tricks on his mind: “I have a hard time sleeping when the sun doesn’t settle and I ask the others if it is the same for them, or, I think I ask as nobody answers and I start to doubt, somewhere over the waves I hover like a great, weak figure imitating my movements, I sit there in the window./Data comes crashing again.”³⁹ For all its technological development, delirium and other dangerous elements still lurks in the treacherous waters. The techno-ocean is but an extension of the age-old erroneous “ideal of mastering the ocean for economic gains.”⁴⁰

Unsurprising, there is also a lurking doubt about 19 the data-deity present when the workers talk among themselves about the fixation and worship of the algorithms from Salvador: “[W]e meet and discuss data/if there is data everywhere/we create information and gather around it as a warm fire. Are we better? Do we build anew?/We make changes, I say/Bjarke, with his dark mouthhole; we are prolonging.”⁴¹ With his thought of prolonging, this Bjarke-character dryly criticise how data is used to carry the oil enterprise into what Michael T. Klare calls “the third great carbon era, the Age of Unconventional Oil and Gas.”⁴² Through technical innovation and datafication, processes like hydrofracking, tar sands extraction, and deep-sea drilling in Arctic and other places with “previously inaccessible reserves of energy,” the fossil fuel business is kept very much alive. As LeMenager writes: “reports of oil’s death have been exaggerated.”⁴³ In many ways then, *Aftenstjerne* is a portrait of

³⁹ Ibid., “24 / 6 / 16 Norskehavet”.

⁴⁰ Polack and Farquharson, “Offshore Rig,” 252 (cf. note 20).

⁴¹ Christiansen, *Aftenstjerne*, “21 / 6 / 16 Norskehavet” (cf. note 32).

⁴² Michael T. Klare, “The Third Carbon Age,” *The Nation*, August 8, 2013, Url: <https://www.thenation.com/article/archive/third-carbon-age/> (accessed 27/07/2023)

⁴³ Both quotations, LeMenager, *Living Oil*, 3 (cf. note 1).

³⁷ Ibid., “4 / 6 / 16 Nordsøen”.

³⁸ Ibid., “8 / 6 / 16 Norskehavet”.

oil's *prolonged* existence. And therefore, if anything the novel actually displays how "the oil industry's last days," as the back cover mentions, is itself a sort of phantasmagoria.

OIL MATERIALITY

20 The representation of offshore petroleumscapes in *Aftenstjerne* is often in line with how Nancy Couling describes it as "a mythological space." Couling goes on to explain how the petroleum-scape thus constitutes "a legendary space of everyday culture."⁴⁴ In *Aftenstjerne*, the everyday aspect is most notably represented by a continuous focus on the work culture in the "artificial urban archipelagos"⁴⁵ constituted by massive materialities like offshore platforms, oil tankers, drill ships, seismic vessels and more. On the one hand, Christiansen show how a relation to the imperceptible aspect of oil itself is achieved through a mythological superstructure. This is especially present in the offshore entries. Here, the oil is lurking in the underground and only by appeasing other sea creatures and the data-deity in Salvador can it be lured out. On the other hand, the novel also emphasises the sheer materiality of oil-structures throughout the book as a sort of myth-busting endeavour. Oil energy is not a God-given phenomenon, the novel lets us know. It is a historical event that is materially and culturally maintained.

21 On the formal level, the entries in the book are all written in a disrupted and simplistic syntax that seems to filter the sentences of all non-oil related matters. In that way, the entries relay a sort of multicultural or migrant workforce language processed by the oil resource that they work with. The workers' language has been refined only to accommodate the life of oil. As the offshore entries in *Aftenstjerne* illustrate, the workers are confronted with a certain illiteracy concerning the subsurface: "We know the surface [...]. There we stop." To make sense they therefore often retort to the historically familiar realm of seafarer mythology. Equally

important, the interconnection of the Norwegian Sea with other petroleum sites is seldom mentioned as anything but the somewhat aetheric and mythical computational calculus in Salvador. But materially, the oil-tuned language is also a clear registration of how the oil industry shapes and synchronises the oil workers' entire bodies to the drill work. In an entry from the onshore shale oil field in the Ordos Basin at the north-western China, we for instance hear how the oil work supplants itself in the body of the worker:

Vibrationerne fra boret planter sig i mine arme, videre ud i hele min krop. Mine muskler dirrer om knoglerne, så det kilder indefra mens jeg kilder klippen med boret, eller jeg ved ikke om det er som en nål eller som en kløe, jeg laver en cylinder nedad.

Boret stopper og jeg får lov, et øjeblik, at mærke sveden på min pande som den følelse der bryder frem i stedet. Borets lyd mod hullets sider mens jeg hiver det op er grov, måske sliber jeg klippens årer. Jeg skifter til et længere bor og sveden forsvinder, tankerne med den tror jeg, i en dybere vibration, en ufrivillig bevægelse af overkroppen, styret af maskinen der er kraftigere end mig.

[...] Jeg er et fikspunkt og kun det, en forankring for boringen.

(The vibrations from the drill supplant itself in my arms, onwards to my entire body. My muscles shiver around the bones, it tickles from the inside as I tickle the rock with the drill, or I don't know if it is like a needle or an itch, I am making a downwards cylinder.

The drill stops and I'm allowed, for a moment, to feel the sweet on my forehead as the erupting feeling instead. The sound of the drill against the sides as I pull it out is rough, maybe I am grinding the veins of the rock. I switch to a larger drill and the sweat disappears, the thoughts with it I think, in a deeper vibration, an involuntary movement of the upper body, controlled by the machine that is more powerful than I.

[...] I am a fixed point and nothing else, an anchor for the drill.)⁴⁶

⁴⁴ Couling, "The Offshore Petroleum-scape," 110 (cf. note 16).

⁴⁵ Ibid., 109.

⁴⁶ Christiansen, *Aftenstjerne*, "4 / 9 / 16 Ordos" (cf. note 32).

22 In this quote we see how the oil workers' language as well as their physical composition are adapted to the task at hand: exploring, drilling, extracting, refining. In the office rooms of energy companies, the desire of oil might consume its host's thoughts, but on the ground the dark substrate's consummation of its host is purely material as the handling of the drill commands the user completely. The workers are reduced to impersonal instruments for the extraction of oil – they are “imperative to the ongoing reinforcement of the [...] petroleumsscape,” but only as an undifferentiated work force, never as individuals.⁴⁷

23 Heidi C. M. Scott has argued that the energy unconscious of today is based on a general absence of materiality: “we live in an era in which fuel is ubiquitous in our lives, but our experience of it is largely immaterial.”⁴⁸ It is fair to assume that Scott's argument is true for the majority of the population in the Global North, and the affluent residents of the Global South as well, just as the oil workers in the novel are perceptively distanced from the oil via the algorithmic mediation. But *Aftenstjerne* shows that while the cultural concepts of oceanic blankness and the near-mythological superstructure of oil often obscure the oil industry's “pervasive impact on physical space,”⁴⁹ the conceptual ruse is fragile. The oil industry cannot uphold the illusion that this “invisible commodity”⁵⁰ is also immaterial. We see this in terms of how the novel shows the constant leaks and sudden spills in the industry exposing the otherwise concealed oil: “We barely see the oil. [...] It is only when the oil escapes, when someone messes up, that we see it. Then it attacks, explodes, and shows a local personality,”⁵¹ and “a concentration of oil, as long as it's kept in our barrels everything is good, as long as it leaks as usual.”⁵² Leaks is nothing out of the usual.

Concerning oil *spills*, another entry describes such accidents in a rather bittersweet fashion: “We barely see the oil. [...] It is only when the oil escapes, when someone messes up, that we see it. Then it attacks, explodes, and shows a local personality.”⁵³ Here we sense that the sight of oil is dreadful but also somewhat titillating. It attacks and explodes, but it also reveals itself. Thus, an oil spill is described in the novel as a way for the oil to let itself be seen as something more than simply an immaterial source of energy. You therefore also sense a certain amount of yearn in this quote; that sometimes it is perhaps even desirable to experience the full might of the energy source that you work with but rarely get to see properly. With entries like these, *Aftenstjerne* suggests that working with a material like oil also influence the way you look at it and how you feel about it, just as it shapes the material body of the worker by way of the physical labour needed to extract it.

Oil workers are however far from the only ones 24 experiencing the material consequences of oil. In the techno-oceans, “the only ones frightened by our technology are the fish,” Yaeger quotes a crass seabed-mapping brochure for saying.⁵⁴ This type of careless irony regarding material, environmental hazard is also evident in a log from the Greenlandic Sea in *Aftenstjerne*. Here the narrator is at one point called on deck to see a whale flee due to their seismological surveys of the seabed. As such, this instance illustrates how the natural environment is to bear the immediate consequences of oil extraction as this “fundamentally capitalist-driven operation relies on expansion to secure the ongoing accumulation of capital.”⁵⁵

Jakub har fået øje på en hvals sprøjt langt ude, og jeg når at se dens hale rejse sig mens vi alle sammen løber op til dækket for at kigge. Den flygter fra vores lyde, det er den eneste vi har set, og kun dens antydninger. Lydene er ufarlige, men de forstyrrer deres fred, eller deres

⁴⁷ Couling, “The Offshore Petroleumscape,” 112 (cf. note 16).

⁴⁸ Heidi C.M. Scott, *Fuel: An Ecocritical History* (London: Bloomsbury, 2018), 5.

⁴⁹ Hein, “Space, Time, and Oil,” 4 (cf. note 23).

⁵⁰ Couling and Hein, “Blankness,” 91 (cf. note 14).

⁵¹ Christiansen, *Aftenstjerne*, “19 / 6 / 16 Shaybah”.

⁵² *Ibid.*, “10 / 11 / 15 Galveston Bay”.

⁵³ *Ibid.*, “19 / 6 / 16 Shaybah”.

⁵⁴ See Yaeger, “Editor's Column: Sea Trash, Dark Pools, and the Tragedy of the Commons,” 528 (cf. note 18).

⁵⁵ Couling, “The Offshore Petroleumscape,” 112 (cf. note 16).

evige hyl der kan sprede sig over det meste af havet. Vi hugger dem over med rytmer. Jeg elsker maskinens brum, heroppefra.

(Jakub has spotted the blow from a whale far out and just in time I see its tail rise as we all run on deck to look. It is fleeing our sounds, it is the only one we have seen, and only its contours. The sounds are harmless but they disturb their peace, or their constant howls spreading across most of the ocean. We chop them up with rhythms. I love the humming of the machinery, from up here.)⁵⁶

25 As the quote suggest, technical enterprise is celebrated while the environmental disturbance is brushed aside – “the sounds are harmless.” The workers are eager to spot the fascinating creatures, but they show no remorse towards them. The whales’ living space and their underwater communication are interrupted with nothing but affection for the “humming of the machinery.” In clear alliance with the trope of oceanic mastering, we also hear how “it is no longer a question of the depth of the sea, the platform, the drillings flow, unfolds the drill and sucks like a mosquito, extends its reach. The depth of the sea does not matter”⁵⁷ – note the simplistic syntax here again. The physical space of the oceanic seabed is thus ripe for taking as the “oceans are [simply] places for stealing resources, dumping trash, and making money through shipping, oil drilling, and so on.”⁵⁸ Unapologetic, the log’s different narrators’ reflection of the social order of contemporary oil extraction here seems to confirm that the “challenges of ultradeepwater oil are rapidly being met, but without much consideration for external costs,” as LeMenager puts it.⁵⁹

⁵⁶ Christiansen, *Aftenstjerne*, “3 / 7 / 16 Grønlandshavet” (cf. note 32).

⁵⁷ Ibid., “7 / 6 / 16 Shaybah”.

⁵⁸ Yaeger, “Editor’s Column: Sea Trash, Dark Pools, and the Tragedy of the Commons,” 533 (cf. note 18).

⁵⁹ LeMenager, *Living Oil*, 3 (cf. note 1). “To drill ‘ultradeep,’” LeMenager explains on the same page, “is to go down 5,000 feet or more, an extension of the once space-age ambition of deepwater drilling: to go as far as 1,000 feet.”

Throughout, *Aftenstjerne* reads as a registration of the capitalist world-system’s insatiable appetite for fossil fuel. No material consequence – whether on the workers’ own bodies or the natural environment – can put an end to the drill bit of fossil capitalism. In a peculiar summarising statement on a page of its own, the oil extractivist ethos even seems speak for itself in a rather unsentimental tone:

Jo flere ting jeg gør, jo flere ting kommer der til at ville ske. Der er ingen der tror på at stoppe kunne være et mål.

imitation

gentagelse

udvikling

måske leder jeg bare efter døden i forskellige ord

(The more I do, the more is going to happen. Nobody believes that ending could be a goal.

imitation

repetition

development

maybe I am just looking for death in different words.)⁶⁰

27 These examples from *Aftenstjerne*, I hope, demonstrates how immaterial subsurface oil is mediated by way of irrealist features of mystique and mythology. ‘Below, everything is speculation,’ we hear, and the workers therefore turn to mythological imagery to make sense of their local oil world. Most explicitly, this is the case in the offshore entries of the novel. Importantly, the novel also registers the massive oil structures involved in the business of extracting oil, both onshore and offshore. The oil itself is cloaked in a veil of mystique, but the enormous seismic vessels, the pipelines, and the oil platforms record the material underpinning of world oil. In her article, Nancy Couling writes that the “North Sea petroleumscape is a sprawling and unfamiliar agglomeration of grids, gods, and giant machines.”⁶¹ Grids here refer to the practice of licensing subdivided blocks of the North Sea out for exploration and subsequent

⁶⁰ Christiansen, *Aftenstjerne*, “27 / 08 / 16 Doha” (cf. note 32).

⁶¹ Couling, “The Offshore Petroleumscape,” 123 (cf. note 16).

drilling, while the gods and giant machines illustrate the dual existence of culture and matter – mythology and materiality. This dual existence of myth and matter is exactly what *Aftenstjerne* registers by way of its irrealist features.

- 28 Where Christiansen’s petrofiction employ seafarer folklore and mythology as irrealist features to describe the reality of offshore oil work, Kristina Stoltz’s novel *På ryggen af en tyr* is adamant in highlighting the obscurity of offshore drilling through gothic sentiments. To extract this point further, I first turn to Yaeger’s concept of oceanic ecocriticism\$.

OCEANIC ECOCRITICISM\$ AND GOTHIC SENTIMENTS

- 29 Ecocriticism\$ is Yaeger’s tentative suggestion for a critical update of the study of literature and the environment. She writes that “although ecocriticism supports many debates, it is so contaminated with nature as perfection or with a quest for organic truth that operating in its name is hard.”⁶² A similar critique of a lingering idea of equilibrium in ‘classic’ ecocriticism, is present in Greg Garrard’s *Ecocriticism* where he writes that “notions of nature’s essential harmony [...] are still prevalent in environmental discourse today.”⁶³ In contrast to this romantic vision of purity in nature, Yaeger proposes the concept ecocriticism\$ “as a prosthetic term that insists on the imbroglio of markets and nature.” As such, Yaeger implicitly positions herself in the growing post-millennial ‘world-ecological’ interest in “the way in which the production of nature under capital becomes fundamentally world-historical, with the connections between local socio-ecologies increasingly determined by the vectors of the market.”⁶⁴ In the words of Matthew Huber,

this dialectic of nature and the social structure of capitalism is also very much to be considered when it comes to oil:

Oil is better understood as a social relation. This is not the same as saying that oil is a cultural construction or that nature is simply a cultural product of human discourse. Rather, it is a simple assertion that oil’s biophysical capacities only come to be mobilized in specific historical circumstances and through particular social relations. Thus from a dialectical perspective that refuses nature–society binaries, oil is more concretely a socioecological relation that requires taking seriously both the materiality of petroleum and the social projects that channel its biophysical capacities in particular ways.⁶⁵

“Oil is better understood as a social relation,”³⁰ Huber insists. Oil is not simply a natural occurrence, it is an energy-intense material that is meticulously planned, thoroughly protected, and heavily propagated around the world. The cultural productions that try to excavate the reality of oil must consider these elements. Therefore, in relation to water, Yaeger proposes that oceanic ecocriticism\$ “draws on narratives about the ocean in a state of emergency, a crisis that demands unnatural histories written by unnaturalists who limn the fleshy entanglement of sea creatures, sea trash, and machines. These histories try to motivate readers with their own brand of personification.”⁶⁶ The novels by Stoltz and Christiansen can be read as fictional renditions of these two complexes – oil and water. Although chemically incompatible, Stoltz and Christiansen show that they are equally impossible to separate in the reality of world-economy/world-ecology entanglement. The offshore workers in Christiansen’s novel, as shown, revisits seafarer mythology to make some sort of sense of the oceanic subsurface. Stoltz turns to another irreal realm in her mobilisation of gothic effects and affects.

⁶² Yaeger, “Editor’s Column: Sea Trash, Dark Pools, and the Tragedy of the Commons,” 529 (cf. note 18).

⁶³ Greg Garrard, *Ecocriticism*, (London: Routledge, 2012 [2004]), 38.

⁶⁴ Michael Niblett, “World-Economy, World-Ecology, World Literature,” *Green Letters*, vol. 16, n° 1, 2012, 17. For a further elaboration and conceptualisation of ‘world-ecology,’ see Jason Moore’s seminal book, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (London: Verso, 2015).

⁶⁵ Matthew T. Huber, *Lifeflood: Oil, Freedom, and the Forces of Capital* (Minneapolis: University of Minnesota Press, 2013), 4. Original italics.

⁶⁶ Yaeger, “Editor’s Column: Sea Trash, Dark Pools, and the Tragedy of the Commons”: 529 (cf. note 18).

31 In *På ryggen af en tyr* the imbroglia of markets and nature is especially evident with the gothic character simply called ‘the boy’ by his own request – “you can call me the boy.”⁶⁷ The novel begins with the protagonist Fanny going on a summer vacation with her mother to visit her mother’s lover at his holiday home. Upon arrival Fanny quickly goes to the nearby beach where she spots something bobbing in the water. It turns out it is a naked boy, approximately ten years of age, falling in and out of consciousness. She quickly dives into the sea to save him from drowning. Back on the beach, the boy comes back to life only to scold her for “ruining everything.”⁶⁸ He then turns her attention to the supertanker out in the bay: “Do you see the supertanker out there?” He points. ‘It’s the largest tanker I have ever seen. It rises like a mountain.’⁶⁹ They talk for a bit, and he tells her that he lives with his father in the house behind them, a house that Fanny in a haunted-house fashion assumed was empty. This dialog then unfolds where Fanny asks him about his mother before the boy quickly diverts the attention on to his connection to and environmental obsession of the oil tanker:

‘Og din mor?’

Han smiler, men svarer ikke, spørger i stedet, om ikke hun vil vide hvorfor han er så interesseret i supertankeren derude.

‘Det er fordi min mor synes det er den smukkeste opfindelse, at man kan have store skibe til at fragte flydende energi hen over verdenshavene på den måde. Det var fuldmåne den nat jeg blev født, og det lækkede fra et af olieskibene. Olien skinnede som sølv på havoverfladen. Den største miljøkatastrofe i Europa nogensinde. Mange millioner fisk og fugle døde. Og så er der mine øjne.’
 ‘De skinner som sølv, dine øjne. Ja, det kan jeg se de gør. Som sølvmonter.

(‘And your mother?’)

He smiles, but he doesn’t answer, instead he asks if she wants to know why he is so interested in the supertanker out there.

‘It is because my mother thinks it’s the most beautiful invention, that it is possible to ship liquid energy across the world oceans in large vessels like that. It was a full moon the night I was born, and it was leaking from one of the oil ships. The oil shone like silver on the surface of the water. The greatest environmental disaster in Europe ever. Many millions of fish and birds died. And then there is my eyes.’

‘They shine like silver, your eyes. Yes, I can see that’s what they do. Like coins of silver.’⁷⁰

Throughout the book, the boy functions in different ways as a sort of gothic omen alerting the reader of oceanic oil’s destructive interference. His eyes, as this quote highlights, resembles the surface of an oil spill, and a few pages later, adding to the gothic darkness surrounding him, we even hear that he possibly died during birth: “The boy died shortly after he was born but they succeeded in resurrecting him, but still, he didn’t live, or did he? The oil flowed. The sea was black.”⁷¹ Again, some pages on, the chorus chips in, saying “he came from the sea.”⁷²

Strangely connected to the supertanker North Oil, the boy goes about burying washed up animals on the beach all day while his father tries to figure out “how he can save the world, how all this can end.”⁷³ In a doppelgänger fashion he moreover resembles a ten-year older waiter/male prostitute that Fanny as well as the oil workers on the supertanker are involved with.⁷⁴ Mysterious, ominous, and yet strangely alluring, the boy represents and conveys connections that Fanny has never considered:

Fanny læser drengens lister. Han har skrevet alting ned. Meget mere end hun vidste. Hun anede ikke, at det var så godt som hele verden der indgik i hans system; at han tydeligvis ser en sammenhæng mellem det hele; hendes bikini og de døde dyr, antallet af cigaretter i hendes pakke og antallet af dage hans mor har

⁶⁷ Stoltz, *På ryggen af en tyr*, 16 (cf. note 4).

⁶⁸ *Ibid.*, 14.

⁶⁹ *Ibid.*, 15.

⁷⁰ *Ibid.*, 15-16.

⁷¹ *Ibid.*, 18.

⁷² *Ibid.*, 25.

⁷³ *Ibid.*, 23.

⁷⁴ *Ibid.*, 31, 43, 58, 77-78.

været væk; at moren, malerierne, dyrene, skibet, hendes egen stråhat og supertankeren hænger sammen.

(Fanny reads the boy's lists. He has written everything down. Much more than she knew. She had no idea that the entire world, almost, was included in his system; he clearly sees a relation between it all; her bikini and the dead animals, the number of cigarettes in her pack and the number of days his mother has been gone; that the mother, the paintings, the animals, the ship, her own straw hat, and the supertanker are connected.)⁷⁵

- 34 His systematised order of the world's relations is far-fetched and rather opaque to Fanny. How is Fanny's bikini related to the dead animals? What has her cigarettes to do with the absence of his mother? Rather than explaining these dense relations the boy embodies a sort of general resentment towards atomism. As such, his presence and his function are not to be a stable onshore signifier of the fossil economy 'out there,' but rather to constantly challenge the entire idea of compartmentalisation and stableness. Even his own material existence and circumstance is questioned, is he dead or alive, did Fanny rescue him and help him bury animals or not?

'Nu er det ikke bare noget der foregår inde i mit hoved,' siger han, da hun spørger. 'Dyrene er der i virkeligheden. De ligger dernede på stranden på rad og række. Fuldstændig indsmurte i olie: fisk, fugle, tilmed sæler. [...]'

Fanny medgiver, at der er langt flere døde dyr i området nu end der var tidligere.

'Men dyrene før var altså ikke bare noget som foregik inde i dit hoved,' siger hun. 'Alle dem i sækken, dem vi begravede sammen – de var da virkelige.'

[...]

'Det var noget vi fandt på, Fanny. Det ved du også godt. Alt det der med, at jeg druknede, og du reddede mig. Du ved jo godt, at det ikke passer. Det er dét derude, som er virkeligheden.' Han peger ud på North Oil's sølvglinsende skrog,

('Now is it no longer just something in my mind,' he says when she asks. 'The animals are really dead. They are placed in a row on the beach, completely covered in oil: fish, birds, even seals. [...]'

Fanny admits that there are way more animals in the area now than before.

'But it wasn't just something in your mind, the animals before,' she says. "All those in the bags, those we buried together – they were real, right.' [...]

'It was just something we made up, Fanny. You know this. All that about me drowning and you saving me. You know it isn't true. It's what's out there, that's real.' He points at North Oil's silvery hull.)⁷⁶

- As the quote illustrates, the offshore supertanker is real. The boy himself, perhaps, is not. 35

THE POLTERGEIST OF EXTRACTIVISM

- In gothic fashion, the boy is to be understood as a spectral presence "from the sea," as we hear, born during a massive oil spill on a night of full moon. Like the dead animals, he symbolises the recurrent *onshoring* of offshore oil. His eyes resemble coins of silver referencing Charon's Obol, the ancient Greek mythological ritual of placing coins on the eyelids to pay ferry passage into the Underworld. In the grand scheme of things, however, whether he is real or not does not seem to matter that much. In the resource capitalist world-system: "It's what's out there, that's real," as he says in the quote. From this point of view, he is nothing more than an undesirable signifier of fossil fuel ruin, reduced to the status of oil covered seabirds and other innocent animals often used to display the environmental damage of oceanic oil spills. "The sea is already a morgue,"⁷⁷ he poignantly says at one point. 36

- 'The sea is already a morgue,' can be said to hold a universal truth in relation to offshore oil spills. However, the statement can also be read in a local Danish context. In 2008 The Danish 37

⁷⁵ Ibid., 170.

⁷⁶ Ibid., 117-118.

⁷⁷ Ibid., 109.

Environmental Protection Agency released a guide on beach cleaning in relation to the emergency management of oil spills in Danish waters. In it, there is a rather laconic if brutal description of bird contamination:

Tilsøling af søfugle med olie efter et oliespild er ofte den mest iøjnefaldende skade, der forvoldes af olieforurening.

Fjerene beskytter fuglene mod varmetab, men olie på fjerene ødelægger denne beskyttende virkning. [...] For at en olieindsmurt fugl kan kompensere for det store varmetab, øges stofskiftet, hvilket kan betyde, at fuglen må indtage måske 2-3 gange så stor fødemængde som normalt. Dette er kun sjældent muligt, idet olie-skadede fugles almentilstand sædvanligvis er stærkt svækket p.g.a. kulde og den forgiftning, der opstår, når fuglen med næbbet forsøger at rense olien af sig. [...]

Dødeligheden blandt olieskadede fugle er næsten 100 procent under vinterforhold. En olieplet med en diameter på 3-4 cm kan være nok til at gøre det af med en fugl.

(Contamination of seabirds after an oil spill is often the most conspicuous damage caused by the oil pollution.

The feathers protect the birds against heat loss but the oil on the feathers destroy this ability. [...] If a bird covered in oil is to compensate for its massive loss of heat, its metabolism is increased which means that the bird must ingest 2-3 times the normal amount of food. This is only rarely possible as the oil covered bird's condition most likely is severely impaired due to heat loss and the poisoning that occur when the bird uses its beak to try and remove oil from its body. [...]

The fatality rate among oil covered birds is almost 100 percent during the period of winter. A patch of oil with a diameter of 3-4 cm can be enough to kill a bird.)⁷⁸

Underneath the sombre description here there is a lurking fact of spill culture. Oil spills are inevitable, it seems, and as contamination of seabirds is the most conspicuous effect of these spills, it is crucial to reduce this consequence. As a principle of beach cleaning, the sentiment is that the visible effects of a spill must be amended. What's 'out there' must preferably be kept 'out there.' In the words of LeMenager: "Terminating a spill is often synonymous with making it less visible."⁷⁹

The boy in *På ryggen af en tyr*, however, manifestly illustrates that 'out there' is a mirage. He is a sort of offshore extraction poltergeist roaming the beach. And, as a comment on societal self-denial, he even tries to clean up the beach even though he is nothing but a clear product of the 'extraction ecology,' as Elizabeth Carolyn Miller names this capitalist world-system. More precisely, he stands out as the sheer *incarnation* of 'extractivism,' described by Miller as "a complex of cultural, discursive, economic, environmental, and ideological factors related to the extraction of underground resources on a large, industrial scale."⁸⁰ Ontological categories like here and there, real and unreal, are constantly questioned in the boy's presence. Even his own list, his system of the world, breaks down upon inspection. The connections are simply too abundant, too complex, to be systematised. In order to adequately represent the instable "fleshy entanglements" that Yaeger talks about, conventions from the unreal gothic genre fiction are applied in Kristina Stoltz' novel *På ryggen af en tyr*. As a genre, "[m]ost contemporary critics agree that Gothic is a continuously productive, transhistorical genre characterised by a certain affect or effect of terror or horror, by a dark and often uncanny atmosphere, and by a specific ideological endeavour: the interrogation of enlightenment rationality as a potentially destructive patriarchal, colonial

⁷⁸ Miljøstyrelsen, *Vejledning om strandrensning – februar 2008* (Odense: Miljøstyrelsen, 2008), 50-51, Url: <https://www2.mst.dk/udgiv/publikationer/2008/978-87-7052-719-4/pdf/978-87-7052-720-0.pdf> (accessed 27/07/2023), my translation.

⁷⁹ LeMenager, *Living Oil*, 23 (cf. note 1).

⁸⁰ Elizabeth Carolyn Miller, *Extraction Ecologies – and the Literature of the Long Exhaustion* (Princeton: Princeton University Press, 2021), 6.

and anthropocentric, yet anti-human force.”⁸¹ The boy’s constant interrogation of established, rational categories, the novel’s eerie atmosphere both concerning scenery (the old hotel, the haunted house, the ominous presence of the supertanker) and plot, and the obvious exposé of the ideology of extractivism’s consequences surely establishes Stoltz’ novel as a gothic off-shore imaginary.⁸²

CONCLUSION: NORTH SEA WORLD LITERATURE

40 Based in a Global North setting, Kristina Stoltz’ novel also follows the claim by gothic and post-colonial scholar Johan Höglund. He writes that whereas narratives from the sacrifice zones in the Global South often portray the direct, immediate environmental *horror* of the capitalist world-system, affluent communities of the Global North are only recently becoming acquainted with these atrocities as a dark and looming if still unrealised *terror*.⁸³ There is, in other words, a discrepancy in the effects as well as the world literary responses of fossil fuelled capitalism. Although the Global South/Global North divide is not absolute as most nations are multiscalar with centre/periphery-divisions within them as well, on the global, structural scale, affluence and all its benefits are still overwhelmingly distributed according to this overall – colonial – scheme. So while climate change still “remains a prophecy, a promise of future violence, and thus a ghostly, haunting presence, for most inhabitants of the affluent Global North,” to the overwhelming majority of the Global South, “[d]eforestation, desertification, flooding,

overfishing, and pollution are [already] making life impossible.”⁸⁴ With a clear Marxist reference, Andreas Malm and Alf Hornborg refer to this as the “uneven and combined” realisation of apocalyptic climate change.⁸⁵

A clear illustration of this unevenness is present in the media response to oil spills around the world. Going back to Christiansen’s novel, his mentioning of leaks per “usual”⁸⁶ can easily be connected to the Global South everyday-*horror*. To put this a bit in perspective, in Nigeria, for instance, a constant leak of oil the size of the *Exxon Valdez* spill in 1989 (approx. 37.000 tonnes) has occurred annually over the past 50 years.⁸⁷ As a government official from Eket, Nigeria says: “We don’t have an international media to cover us, so nobody cares about it [...]. Whatever cry we cry is not heard outside of here.”⁸⁸ Horror, then, is the dreadful everyday experience of ‘living on a damaged planet.’⁸⁹ Unevenly distributed, the experiences of climate change so far most intensely affect countries of the Global South who are less responsible for the acceleration of greenhouse gas emissions. And this moreover, according to Höglund’s salient gothic and world literary analysis, has formal consequences for the literature written from such locales. Terror on the contrary, Höglund, along with Justin Edwards and Rune Graulund, suggests, is a gothic inclination connected to a thrilling faculty, a sudden awakening and the adrenaline

⁸¹ Maria Holmgren Troy et al., *Nordic Gothic* (Manchester: Manchester University Press, 2020), 1-2.

⁸² For more on gothic sentiments and sea literature, see Emily Alder, “Through Oceans Darkly: Sea Literature and the Nautical Gothic,” *Gothic Studies* 19, n° 2 (2017). See also Sharae Deckard’s conceptualisation of ‘extractive gothic’ in Rebecca Duncan (ed.), *The Edinburgh Companion to Global Gothic* (Edinburgh: Edinburgh University Press, 2023 (Fortcoming)).

⁸³ Johan Höglund, “Alligators in the Living Room: Terror and Horror in the Capitalocene,” in Sladja Blazan (ed.), *Haunted Nature: Entanglements of the Human and the Nonhuman* (Cham: Palgrave Macmillan, 2021).

⁸⁴ Edwards, Graulund, and Höglund, “Introduction: Gothic in the Anthropocene,” xx (cf. note 7). See also Rob Nixon’s influential analysis of how poor communities experience the planetary emergency compared to affluent communities. Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge: Harvard University Press, 2013).

⁸⁵ Malm and Hornborg, “The Geology of Mankind?,” 66-67 (cf. note 27).

⁸⁶ Christiansen, *Aftenstjerne*, “10 / 11 / 15 Galveston Bay” (cf. note 32).

⁸⁷ Adam Nossiter, “Far From Gulf, a Spill Scourge 5 Decades Old,” *The New York Times*, June 16, 2010, Url: <https://www.nytimes.com/2010/06/17/world/africa/17nigeria.html> (accessed 27/07/2023).

⁸⁸ Ibid.

⁸⁹ This phrasing is a tribute to the book by Anna Tsing et al., (eds.), *Arts of Living on a Damaged Planet* (Minneapolis: University of Minnesota Press, 2017).

rush of shocking surprises.⁹⁰ A specific set of *terrifying* sentiments that originated in the genre fiction of gothic are thus related to the affective impact of climate change-to-come in the affluent and still insulated Global North, they go on: “It can be argued that affluent communities, most located in the Global North, encounter the Anthropocene not as physical violence but as a haunting, uncanny presence, a ghost that rises out of the global landscape.”⁹¹ Enter the boy in *På ryggen af en tyr*. This sensorial awakening to the facts of planetary emergency, they further argue, illustrates that gothic “has the potential to present us with a ‘realer,’ if darker, reality.”⁹² As such, the gothic sentiments that challenge ontological categories and conceptions of reality in *På ryggen af en tyr* confronts the reader with a more real, but by no means clearer, depiction of the world-ecology.

42 Both novels, I have attempted to show, employ irrealism to depict extractivism, and more specifically, the materiality of offshore oil. Both *På ryggen af en tyr* and *Aftenstjerne* are adamant in making visible local figurations of the world phenomena of oil. In using irrealism as the formal device, they depict the existing opacity and mythology of oil rather than trying to construct a strictly realist representation of oil. According to Amitav Ghosh, the realist novel is a form predicated on vision – that which can be observed – and the “detailed descriptions of everyday life.”⁹³ As already mentioned, the energy unconscious is by contrast based on a general absence of materiality, meaning that everyday life in the Global North is shielded from a clear

visualisation of oil. As such, the employment of irrealism to depict oil in these two Nordic petrofictional works can be read as an accentuation of realism’s inadequacy to grasp the realities of oil.

Kristina Stoltz and Aske Juul Christiansen are 43
both from the oil producing country of Denmark. Thus, speaking from a Danish context, they connect culture traits from the Nordic region with the global world of oil. *Aftenstjerne* specifically use the unreal register of Nordic mythology and the seafarer/explorer form to discuss the immateriality of offshore oil. In this novel, Nordic oil is clearly world oil but in its form the novel still retains a regional tonality. In Stoltz’s novel, it is unclear where – in the Global North – the story exactly unfolds. The sunny, coastal and mountainous setting suggests the southern parts of Europe, though, a common travel destination for Danes on summer vacation. The supertanker’s name – North Oil – of course explicitly refers to the North. Moreover, in the cultural history of Denmark, the designator ‘supertanker’ is synonymous with the Danish shipping firm Maersk – just as the Danish history of North Sea oil extraction is: the CEO at Maersk, A. P. Møller, spearheaded the push to explore the seabed in the mid-century, and in 1962 the subdivision Maersk Oil was granted the exclusive right to explore and extract oil and gas from the Danish sector of the North Sea.⁹⁴ In that way, *Aftenstjerne* and *På ryggen af en tyr* carry clear traces of a specific region’s cultural and industrial history in their registration of world oil. They are, I suggest, specific irrealist Danish North Sea petrofiction contributions to the world literature of the modern capitalist world-system.

⁹⁰ See Edwards, Graulund, and Höglund, “Introduction: Gothic in the Anthropocene,” (cf. note 7).

⁹¹ Ibid., XIX.

⁹² Ibid., IX.

⁹³ See Amitav Ghosh, *The Great Derangement: Climate Change and the Unthinkable*, (Chicago: Chicago University Press, 2017), 19.

⁹⁴ See Morten Hahn-Pedersen, *Maersk Oil: From Danish to International Operations* (Copenhagen: Gyldendal, 2017). In 2018, the subdivision Maersk Oil became a part of French oil firm Total thus ending the Danish shipping firm’s oil drilling engagement in the North Sea.

Bibliography

Alder Emily

“Through Oceans Darkly: Sea Literature and the Nautical Gothic”, *Gothic Studies*, vol. 19, n° 2, 2017, 1-15.

Buell Frederick

“A Short History of Oil Cultures: Or, the Marriage of Catastrophe and Exuberance”, *Journal of American Studies*, vol. 46, n° 2, 2012, 273-293.

Christiansen Aske Juul

Aftenstjerne (Copenhagen: Arena, 2019).

Couling Nancy

“The Offshore Petroleumscape: Grids, Gods, and Giants of the North Sea”, in Carola Hein (ed.), *Oil Spaces: Exploring the Global Petroleumscape* (New York: Routledge, 2021), 109-126.

Couling Nancy, Hein Carola

“Blankness: The Architectural Void of North Sea Energy Logistics”, *Footprint*, vol. 12, n° 23, 2018, 87-104.

Duncan Rebecca (ed.)

The Edinburgh Companion to Globalgothic (Edinburgh: Edinburgh University Press, 2023) (Fortcoming).

Edwards Justin D., Rune Graulund, Johan Höglund

“Introduction: Gothic in the Anthropocene”, in Justin D. Edwards, Rune Graulund and Johan Höglund (eds.), *Dark Scenes from Damaged Earth: The Gothic Anthropocene* (Minneapolis: University of Minnesota Press, 2022), IX-XXVI.

EPA (United States Environmental Protection Agency)

“Deepwater Horizon – BP Gulf of Mexico Oil Spill”, *EPA – United States Environmental Protection Agency* (latest update: 14 January 2022). Url: <https://www.epa.gov/enforcement/deepwater-horizon-bp-gulf-mexico-oil-spill> (accessed 27/07/2023)

Garrard Greg

Ecocriticism (London: Routledge, 2012 [2004]).

Ghosh Amitav

The Great Derangement: Climate Change and the Unthinkable (Chicago: Chicago University Press, 2017).

Hahn-Pedersen Morten

Maersk Oil: From Danish to International Operations (Copenhagen: Gyldendal, 2017).

Hein Carola

“Between Oil and Water. The Logistical Petroleumscape”, in Neeraj Bhatia and Mary Casper (eds.), *The Petropolis of Tomorrow* (New York: Actar Publishers, 2013), 436-447.

“Oil Spaces: The Global Petroleumscape in the Rotterdam/ The Hague Area”, *Journal of Urban History*, vol. 44, n° 5, 2018, 887-929.

“Old Refineries Rarely Die: Port City Refineries as Key Nodes in the Global Petroleumscape”, *Canadian Journal of History*, vol. 53, n° 3, 2018, 450-479.

“Space, Time, and Oil: The Global Petroleumscape”, in Carola Hein (ed.), *Oil Spaces: Exploring the Global Petroleumscape* (New York: Routledge, 2021), 3-18.

Helleland Botolv

“Place-Names (Geographical Names) on and off the Coast of Western Norway: Names of Oil Fields Compared to Traditional Place-Names”, at the Sixth International Seminar on the Naming of Seas: Special Emphasis Concerning the East Sea (Seoul: Society for East Sea, 2000).

Huber Matthew T.

Lifeblood: Oil, Freedom, and the Forces of Capital (Minneapolis: University of Minnesota Press, 2013).

Höglund Johan

“Alligators in the Living Room: Terror and Horror in the Capitalocene,” in Sladja Blazan (ed.), *Haunted Nature: Entanglements of the Human and the Nonhuman* (Cham: Palgrave Macmillan, 2021), 115-134.

Johnson Bob

Mineral Rites: An Archaeology of the Fossil Economy (Baltimore: Johns Hopkins University Press, 2019).

Klare Michael T.

“The Third Carbon Age,” *The Nation*, 08/08/ 2013. Url: <https://www.thenation.com/article/archive/third-carbon-age/> (accessed 27/07/2023)

LeMenager Stephanie

Living Oil: Petroleum Culture In the American Century (Oxford: Oxford University Press, 2016).

Macdonald Graeme

“Containing Oil: The Pipeline in Petroculture”, in Sheena Wilson, Adam Carlson and Imre Szeman (eds.), *Petrocultures: Oil, Politics, Culture* (Montreal & Kingston: McGill-Queen’s University Press, 2017), 36-77.

“Dynamic Positioning: North Sea Petroculture’s Backwash”, in Fiona Polack and Danine Farquharson (eds.), *Cold Water Oil: Offshore Petroleum Cultures* (London: Routledge, 2022), 61-96.

Malm Andreas

Fossil Capital: The Rise of Steam Power and the Roots of Global Warming (London: Verso, 2016).

Malm Andreas, Hornborg Alf

“The Geology of Mankind? A Critique of the Anthropocene Narrative”, *The Anthropocene Review*, vol. 1, n° 1, 2014, 62-69.

Miljøstyrelsen

Vejledning om strandrensning – februar 2008 (Odense: Miljøstyrelsen, 2008). Url: <https://www2.mst.dk/udgiv/publikationer/2008/978-87-7052-719-4/pdf/978-87-7052-720-0.pdf> (accessed 27/07/2023)

Miller Elizabeth Carolyn

Extraction Ecologies – and the Literature of the Long Exhaustion (Princeton: Princeton University Press, 2021).

Moore Jason W.

Capitalism in the Web of Life: Ecology and the Accumulation of Capital (London: Verso, 2015).

Niblett Michael

“World-Economy, World-Ecology, World Literature”, *Green Letters*, vol. 16, n° 1 2012, 15-30.

Nixon Rob

Slow Violence and the Environmentalism of the Poor (Cambridge: Harvard University Press, 2013).

Nossiter Adam

“Far From Gulf, a Spill Scourge 5 Decades Old”, *The New York Times*, 16 June 2010. Url: <https://www.nytimes.com/2010/06/17/world/africa/17nigeria.html> (accessed 27/07/2023)

Parker Laura

“The Great Pacific Garbage Patch Isn’t What You Think It Is”, *National Geographic*, 22 March 2018. Url: <https://www.national-geographic.com/science/article/great-pacific-garbage-patch-plastics-environment> (accessed 27/07/2023)

Polack Fiona, Farquharson Danine

“Offshore Rig”, in Imre Szeman, Jennifer Wenzel and Patricia Yaeger (eds.), *Fueling Culture: 101 Words for Energy and Environment* (New York: Fordham University Press, 2017), 252-254.

Robertson Kirsty

“Oil Futures/Petrotextiles”, in Sheena Wilson, Adam Carlson and Imre Szeman (eds.), *Petrocultures: Oil, Politics, Culture* (Montreal & Kingston: McGill-Queen’s University Press, 2017), 242-263.

Russon Mary-Ann

“The Cost of the Suez Canal Blockage”, *BBC*, 30/03/ 2021. Url: <https://www.bbc.com/news/business-56559073> (accessed 27/07/2023)

Scott Heidi C.M.

Fuel: An Ecocritical History (London: Bloomsbury, 2018).

Stoltz Kristina

På ryggen af en tyr (Copenhagen: Rosinante, 2014).

Troy Maria Holmgren, Höglund Johan, Leffler Yvonne, Wijkmark Sofia

Nordic Gothic (Manchester: Manchester University Press, 2020).

Tsing Anna, Swanson Heather, Gan Elaine, Bubandt Nils, (eds.)

Arts of Living on a Damaged Planet (Minneapolis: University of Minnesota Press, 2017).

Welling Bart H.

“Petronarratology: A Bioregional Approach to Oil Stories”, *English Studies*, vol. 99, n° 4, 2018, 442-457.

WRc: Warwick Research Collective

Combined and Uneven Development: Towards a New Theory of World-Literature (Liverpool: Liverpool University Press, 2015).

Yaeger Patricia

“Editor’s Column: Sea Trash, Dark Pools, and the Tragedy of the Commons”, *PMLA*, vol. 125, n° 3, 2010, 523-545.

Yaeger Patricia, Shannon Laurie, Nardizzi Vin, Hiltner Ken, Makdisi Saree, Ziser Michael, Szeman Imre

“Editor’s Column: Literature in the Ages of Wood, Tallow, Coal, Whale Oil, Gasoline, Atomic Power, and Other Energy Sources”, *PMLA*, vol. 126, n° 2, 2011, 305-326.

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The endless potentiality: A century and a half of Greek oil aspirations (and what often becomes of them)

Abstract

This article focuses on select instances of the history of Greek petroleum geology, spanning over 150 years of -mostly failed- oil exploration attempts. Firstly, we focus on the pre-WWII period, and show how early Greek petroleum geologists formed their expertise during successive periods of crisis and war. We then venture into the re-emergence of Greek hydrocarbon aspirations after the 2010 "Greek crisis". Following relevant contributions, we approach Greece as a country where hydrocarbons display material effects despite their physical absence. We portray contemporary Greek petroculture as a mixture of popularized petroleum geology and tacit geopolitical calculation. Finally, we show that the post-2010 Greek hydrocarbon policy is less motivated by hydrocarbon aspirations and more by a long-standing Greco-Turkish rivalry in the Eastern Mediterranean.

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Plan of the article

- Introduction: On oil experts and political savvy
- The emergence of a myth: Zakyntos, 1865-1905
- Oil potentiality and scientific facts, 1912-1923
- The formation of a mature oil discourse, 1933-1940
- Geopolitical numbers, 2010-2023
- Conclusion: On history, petroculture and war

*Most oil exploration experts work for the
large oil companies.
Hence they form their opinions accordingly.
Alexandros Diomidis, 1935¹*

INTRODUCTION: ON OIL EXPERTS AND POLITICAL SAVVY

1 Hydrocarbon-wise, Greece is quite the peculiar place. The Greek State has attempted oil exploration in various instances since the mid-nineteenth century, most often in times of crisis and war anticipation. As far as oil discovery is concerned, Greek efforts have remained for the most part fruitless. However, they have been invariably accompanied by a vocal discourse, wherein notions of hydrocarbons as “subterranean treasure” and “instrument of fiscal salvation” are firmly intertwined with opaque technical terms borrowed from the discipline of petroleum geology. This discourse has matured over decades of successive application. It has resulted in a rarely contested historical narrative of Greek oil exploration, replete with nationalism, missed opportunities, “state incompetence” and unfair treatment by the Western powers.² It has emerged once more in recent years and currently dominates all relevant conversation in Greece,³ closely related to rising geopolitical

tensions over maritime sovereignty rights in the Eastern Mediterranean.⁴

In other words, Greece is one of those puzzling places where hydrocarbons display concrete material effects despite their physical absence.⁵ Scholars faced with similar instances of hydrocarbon’s “absent presence”, have proposed to study resources beyond their valuation and circulation as commodities in global markets. Instead, resources should be approached as “historically and ontologically becoming” via an array of state and social practices ranging from state expansionism and irredentism to infrastructure construction and the application of expert knowledge.⁶

Our article follows this train of thought; we explore the historical origins and most recent applications of the Greek hydrocarbon discourse by following the emergence of a Greek version of the petroleum geology discipline and its practitioners. Previous work in the History of Technology and STS Studies has shown that technical experts are often able to assert political power through the implementation of science and technology.⁷ Petroleum geologists in particular, employ practices of a deeply artisanal, technopolitical nature from a complicated junction between personal, corporate, and state interest.⁸

1 Alexandros Diomidis was a Greek economist and statesman. In various occasions between 1910 and 1950 he served as a Minister of Economics, Minister of Foreign Affairs and Governor of the Bank of Greece, even becoming Prime Minister in 1949. He became intimately involved in oil matters during the 1930s. See Nikos Pantelakis, Αλέξανδρος Ν. Διομήδης [1874-1950]: Ένας Αυθεντικός Εκπρόσωπος της Αστικής Τάξης [Alexandros Diomidis: A genuine representative of the bourgeoisie, 1874-1950] (Athens: *Metamesonykties Ekdoseis*, 2018), 327-345, the quote (taken from his private correspondence) in 336.

2 Efi Marinou, “Τα ξένα συμφέροντα έσβησαν το κερί” [Foreign Interests have put out Keri], *Eleftherotypia*, 6 August 1995.

3 Elias Nikolaidis, “Μπορεί το Πετρέλαιο να σώσει την Ελλάδα;” [Can Oil save Greece?], *Ta Nea*, 25 September 2012; Costis Stambolis, “Lack of state support hinders Greece’s oil exploration”, *Financial Mirror*, 16/03/ 2020. Url: <https://www.financialmirror.com/2020/03/16/lack-of-state-support-hinders-greeces-oil-exploration/> (accessed 22/05/2023).

4 Zeynep Oguz, “Harnessing Indeterminacy: The Technopolitics of Hydrocarbon Prospects”, *Platypus*, 20/07/2021. Url: <https://blog.castac.org/2021/07/harnessing-indeterminacy-the-technopolitics-of-hydrocarbon-prospects/> (accessed 22/05/ 2023).

5 Tanya Richardson, Gisa Wieszkalnys, “Resource Materialities”, *Anthropological Quarterly*, vol. 87, n°1, 2014, 5-30, 22.

6 *Ibid.*, 21; Kärg Kama, “Temporalities of (un)making a resource: Oil Shales between Presence and Absence”, in Matthew Himley, Elizabeth Havice and Gabriela Valdivia (eds.), *The Routledge Handbook of Critical Resource Geography* (London and New York: Routledge, 2022), 57-67, 59; Zeynep Oguz, “Speculative Undergrounds: Oil’s Absent Presence, Neo-Imperial Nationalisms, and Earth Politics in Turkey”, *Cultural Anthropology*, vol. 38, n° 3, 2023, 26.

7 Gabrielle Hecht, *The Radiance of France: Nuclear Power and National Identity After World War II* (Cambridge: The MIT Press, 1998), 14-17.

8 Andrew Barry, *Material Politics: Disputes along the Pipeline* (Chichester, West Sussex: Wiley/Blackwell, 2013), 141-3.

Similarly to other practitioners of the earth sciences, they are not just aiming at the discovery of some indisputable subsoil truth. Instead, their very questions stem from a powerful “context of motivation” made of national interest and historical circumstance.⁹ The answers and scientific estimates they thus produce remain inscrutable until one considers their economic, institutional, and historical context.¹⁰

4 Accordingly, our periodization of the history of petroleum geology in Greece considers the turbulent history of the Greek State. We discern five distinct periods of oil exploration and the production of oil discourse. The first is between 1865 and 1905, when oil exploration was mostly centred on Zakynthos, an island of the Ionian Sea. Even as early as this, one can find traces of the peculiar blend of oil knowledge and political calculation that would come to characterize later exploration attempts. The second period is between 1912 and 1923, when the Greek State attempted oil exploration while being engaged in four successive wars. Early Greek petroleum geologists formed their expertise and methods of public intervention during this war decade. Third is the period of economic crisis and war preparation that lies between the Greek bankruptcy in 1932 and the initiation of the Second World War in 1939. It featured the reemergence of the Greek State’s oil exploration attempts, and the formation of a mature oil discourse that was expressed in scientific reports and the public domain alike. A fourth period of oil exploration lies between 1960 and 1982. In the 1960s, the Greek State initiated a series of oil exploration attempts that coincided with intense Greco-Turkish conflict. The conflict culminated in a

war over the possession of the island of Cyprus in 1974.¹¹ Oil exploration attempts went on until 1982 and produced the only viable Greek oil deposit to date, offshore the city of Kavala in the Northern Aegean.¹² The fifth period is still ongoing; it features the re-surfacing of Greek hydrocarbon aspirations after the Greek bankruptcy of 2010 as well as rising tensions in the Eastern Mediterranean.

In what follows, we describe the pre-WWII oil exploration attempts, emphasizing the emergence of a Greek version of petroleum geology and its interplay with public oil discourse. We then use our historical narrative to venture into the post-2010 re-emergence of Greek hydrocarbon aspirations. In the process, we show that Greek petroleum geologists are far removed from the archetype of the socially disconnected scientist, hardly prone to “neglecting aspects of the oil question” due to some single-minded scientific approach.¹³ Instead, our protagonists are scientists armed with deep political and economic savvy, more than able to relate their expert knowledge to wider social and state imperatives. What’s more, the context of motivation under which they usually operate is one of crisis and war preparation. The resulting interplay between geopolitics and science has best been described as “science in grey”: not covert scientific activities funded

⁹ Naomi Oreskes, “A Context of Motivation: US Navy Oceanographic Research and the Discovery of Sea-Floor Hydrothermal Vents,” *Social Studies of Science*, vol. 33, n° 5, 2003, 726-30.

¹⁰ Michael Aaron Dennis, “Drilling for Dollars: The Making of US Petroleum Reserve Estimates, 1921-25,” *Social Studies of Science*, vol. 15, 1985, 241-242; Peter Shulman, “‘Science can Never Demobilize’: The United States Navy and Petroleum Geology, 1898-1924,” *History and Technology*, vol. 19, n° 4, 2003, 377; Timothy Mitchell, *Carbon Democracy: Political Power in the Age of Oil* (London: Verso, 2011), 45-59.

¹¹ For the resurfacing of oil exploration attempts in the 1960s, see Yannis Fotopoulos, Stathis Arapostathis, “From National to Cosmopolitan Hydrocarbons Resource Space: Hydrocarbons, Transnational Politics and the State in Greece,” *Global Environment*, vol. 15, 2022, 322-69, 334-342. For an overview of Greek state policies in the period, see Christos Tsakas, *Post-war Greco-German Relations, 1953-1981* (London: Palgrave Macmillan, 2022).

¹² The modest “Prinos deposit” was discovered in the 1970s and has produced 120 million barrels of oil in its 40 years of operation since 1981- today it requires state funding to continue production. Chrissa Liaggou, “Lufthansa Model for Prinos Oil”, *e-Kathimerini*, 31/05/2020. Url: <https://www.ekathimerini.com/economy/253253/lufthansa-model-for-prinos-oil/> (accessed 22/05/2023).

¹³ Rüdiger Graf, “Expert Estimates of Oil-Reserves and the transformation of ‘Petroknowledge’ in the Western World from the 1950s to the 1970s”, in Frank Uekötter and Uwe Lübken (eds.), *Managing the Unknown: Essays in Environmental Ignorance* (New York, Oxford: Berghahn, 2014), 141.

for military purposes, but science informed by and tacitly oriented towards confidential state imperatives.¹⁴

- 6 As we are about to see, from very early on this “science in grey” found its way into the public discourse that accompanies Greek oil exploration for more than one and a half century. The result is an amalgam of scientific discourse and political calculation which constitutes a significant part of Greek petroculture and may well be the most successful product of one and a half century of Greek oil exploration attempts. Its origins and contemporary use constitute the main subject of this article.

THE EMERGENCE OF A MYTH: ZAKYNTHOS, 1865-1905

- 7 Zakynthos is an island of the Ionian Sea, situated at the westernmost part of the Greek territory. Best known today as a tourist attraction, Zakynthos has been a well-known oil premise since antiquity and is mentioned as such by Herodotus.¹⁵ Moreover, there are constant surface appearances of oil, not only following earthquake activity, but also in the bottom of a lake called “Keri”. As a result, the first modern oil exploration attempts can be detected as early as 1865. Only a year after the island’s annexation in 1864, the Greek state was quick to concede exploration rights to “an Anglo-American company established by D. York”.¹⁶ The project has been documented thanks to the presence of Henri Coquand, a French geologist who at the time participated in an exploratory mission studying European petroliferous regions. His final conclusions were hardly encouraging: “In

Wallachia [in Romania], a deposit of such small magnitude and low fertility would remain unnoticed”.¹⁷

- 8 Coquand proved to be right and the 1865 attempt failed, not leaving much evidence behind.¹⁸ The matter took a more serious turn in 1891, when Boverton Redwood, “the *éminence grise* of British oil policy before the First World War”¹⁹ visited Zakynthos, inspected the surface appearances and took samples.²⁰ He then applied for a concession.²¹ Instead of conceding rights, the Greek state sent Georgios Damalas, a “geometer” to conduct exploratory drilling. Damalas’ well went as deep as 100 meters before the drill broke upon encountering a layer of hard granite.

- 9 A sort of local oil expertise flourished next to this fervent activity. One of its most organized samples can be found in a speech given by Nikolaos Minotos, a local lawyer and member of the “Zakynthos studios club” in 1894. Minotos was intimately acquainted with the 1891 exploration efforts and had personally met with “the prominent English engineer” [i.e., Redwood] organizing them. Minotos knew that American drilling attempts could reach a depth of 600 meters, dwarfing the one attempted in 1891. He was well-versed in the “anticline theory”, the common paradigm for petroleum geology proposed by Israel White in 1885, and knew that a “granite plaque” such as the one that broke the drill in 1891, was “usually encountered above a

¹⁴ For the notion of “science in grey” and its “hybrid” practitioners, see Roberto Cantoni, *Oil Exploration, Diplomacy, and Security in the Early Cold War: The Enemy Underground*, (New York and London: Routledge, 2017), 248-249.

¹⁵ Thomas Ethelbert Page, Edward Capps, William Henry Denham Rouse (eds.), *Herodotus with an English translation by A.D. Godley in four Volumes, II, Books III and IV* (London; New York: William Heinemann & G. P. Putnam’s Sons, 1928), 397. The reference in Herodotus’ works is *Book IV*, §195.

¹⁶ Evagelos Bombos, *Τα Πετρέλαια της Ζακύνθου και τα εξ αυτών Προϊόντα* [The oils of Zakynthos and their products] (Piraeus: Typografeion Efth. Proukaki, 1938), 5-6.

¹⁷ Henri Coquand, “Description géologique des gisements bitumineux et pétrolifères de Sélenitza dans l’Albanie et de Chieri dans l’île de Zante”, *Bulletin de la Société Géologique de France*, vol. 25, 1868, 67.

¹⁸ Nikolaos Minotos, «Περί των εν Ζακύνθω Πετρελαιοφόρων Πηγών και Περί Πετρελαίων εν Γένει: Μελέτη αναγνωσθείσα εν τω Συλλόγῳ Φιλομαθῶν Ζακύνθου την 3^{ην} Ιουλίου 1894» [On the Zakynthos petroliferous sources and oil in general: A study read before the Zakynthos studios club on 3 July 1894] (Zakynthos: Ai Mousai, 15 July 1894 – 1 August 1894).

¹⁹ Daniel Yergin, *The Prize: The Epic Quest for Oil, Money and Power* (New York: Free Press, 2008 [1991]), 123.

²⁰ Sir Boverton Redwood, *Petroleum*, vol. I (London: Charles Griffin & Co., 1906 [1896]), 36.

²¹ Minotos, «Περί των εν Ζακύνθω Πετρελαιοφόρων Πηγών και Περί Πετρελαίων εν Γένει» (cf. note 18) .

petroleum deposit”.²² He could also relate drilling to the “common good” of the people of Zakynthos; according to contemporary knowledge, the earthquakes plaguing the island since antiquity were due to “underground water that evaporated and exploded akin to a steam engine”. Drilling would free the water from its underground enclosures, thus relieving Zakynthos from its earthquake problem.²³

10 Finally, Minotos was well-versed into oil’s geopolitical intricacies. He described the global battle for oil markets as a battle for the transport of oil, knew the exact share belonging to American and Russian interests,²⁴ and was a firm supporter of Russian oil. Not only because it gave “a much clearer light when burnt in oil lamps”, but also because “us people of earlier generations (...) have learnt to love the enemies of our ancient enemies – we have learnt to love Russia. As my late father used to say, if not for the Muscovites, we would all be Fracs and Turks”.

11 This nineteenth century Zakynthos islander was neither petroleum geologist nor international relations expert; he was a lawyer and a man of his time, place, and social class. Through personal work and involvement with foreign experts, he had managed to educate himself on a wide array of oil matters ranging from geological theories to the technical details of oil drilling and transport. He was able to relate such “technical matters” to market competition and international conflict, all the while reserving a place for personal, class and national interest. This mingling of political, technical, and economic discourse is evident in his treatment of earthquakes. The

²² Israel White, “The Geology of Natural Gas”, *Science*, vol. 5, n° 125, 1885, 521; Brian Frehner, *Finding Oil: The Nature of Petroleum Geology, 1859-1920* (Lincoln and London: University Of Nebraska Press, 2011), 71-73.

²³ The Zakynthos seismogenic region frequently produces “strong earthquakes with magnitude up to 7.0”; Basil Papazachos, “Large Seismic Faults in the Hellenic Arc”, *Annali di Geophysica*, vol. XXXIX, n° 5, 1996, 894.

²⁴ Minotos gave a 58,3% market share for American, vs 41.7% for Russian oil companies; his description does not differ much from the one given by Yergin; see Yergin, *The Prize: The Epic Quest for Oil, Money and Power*, 40-61 (cf. note 19).

theory connecting underground water deposits with earthquakes is quite obsolete by today’s standards; it was however efficiently used to relate oil drilling with the “common interest of the people of Zakynthos”. Drilling would not only contribute to personal wealth; it would also avert earthquakes.

The 1891 oil exploration attempt had been abandoned. For Minotos however, geological theory, the state of international relations, and the common good of the people of Zakynthos suggested otherwise: “the underground treasure that is in all probability hidden in Zakynthos, remains unexploited”. Minotos suggested that the existence of oil should remain a potentiality for reasons that extended beyond mere sub-soil reality. As we shall see, such reasons were indeed abundant in the years to come, and the endless potentiality of oil first formulated by Minotos would accompany Greek hydrocarbon discourse for more than a century. 12

OIL POTENTIALITY AND SCIENTIFIC FACTS, 1912-1923

Between 1912 and 1922 the Greek State was involved in no less than four wars, including the Balkan Wars (1912-1913), the First World War (1916-1918), and an all-out Greco-Turkish War (1920-1922), best known today as “the Asia Minor Expedition” and in Greece as “The Asia Minor Disaster”. By the end of this war decade, the Greek state had doubled its territory and population by annexing the so-called “New Lands”, meaning Southern Epirus, Southern Macedonia, Western Thrace, the North Aegean Islands and Crete (fig. 1). 13

In the meantime, oil was transforming from an efficient light source chiefly used in lamps, to an asset of increasingly strategic importance, in peace and –most importantly- war.²⁵ The possibility of oil deposits in the “New Lands” was 14

²⁵ Yergin, *The Prize: The Epic Quest for Oil, Money and Power*, 151-67 (cf. note 19); Nuno Madureira, “Oil in the Age of Steam,” *Journal of Global History*, vol. 5, n° 1, 2010, 75-94; David Painter, “International Oil and National Security,” *Daedalus*, vol. 120, n° 4, 1991, 183.

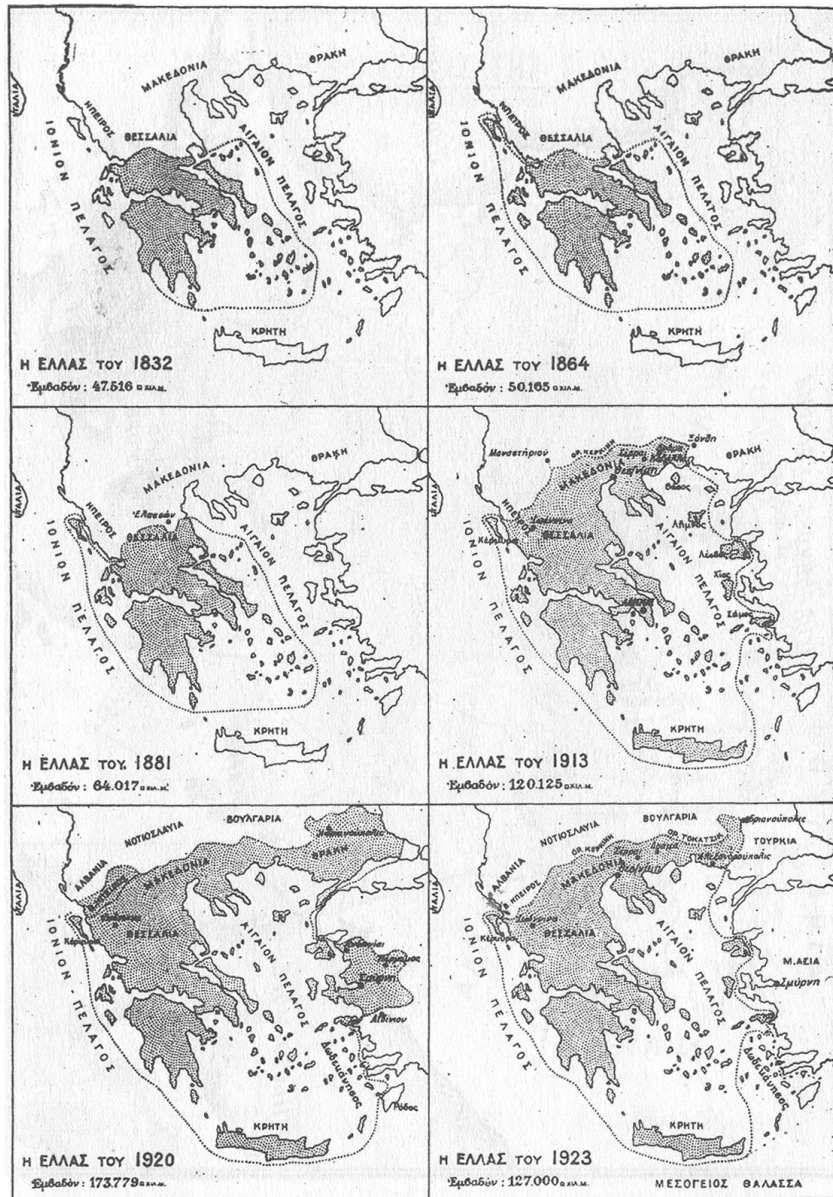


Figure 1: Expansion of the Greek Territory (1832-1923). The annexation of the “New Lands” took place between 1912 and 1923. Source: Yannis Milios, *Ο Ελληνικός Κοινωνικός Σχηματισμός: Από τον Επεκτατισμό στην Καπιταλιστική Ανάπτυξη* [The Greek Social Formation: From Expansionism to Capitalist Development] (Athens: Kritiki, 2000), 389.

promptly brought to the fore. Foremost among the areas of interest was the valley of the Molitsa River in Epirus, near the “Dragopsa” village (fig. 2). The Ottoman administration was aware of the Dragopsa case at least since 1910 when Ludovic Mrazek and his student C. Niculescu, esteemed geologists of the University of Bucharest, arrived at the area to inspect surface indications.²⁶ After the area changed hands in 1914, it was repeatedly inspected by joint French and Greek expeditions.

In January 1919 a “Franco-Greek petroleum syndicate” was founded to exploit the “petroliferous strata” in Epirus, the Ionian Isles and Peloponnese. The Syndicate was funded by French banks and directed by Alfred Pouyanne, former colonel of the French Army and early wartime explorer of Dragopsa.²⁷

As early as December 1919, Pouyanne reported that the Syndicate “counts on discovering oil very soon in suitable quantities for industrial

²⁶ Constantin Niculescu, “Contributions à la Géologie de l’Épire (Environ de Janina)”, *Bulletin de la Section Scientifique de l’Académie Roumaine*, vol. 3, n° 1, 1914.

²⁷ Pantelakis, Αλέξανδρος Ν. Διομήδης [1874-1950], 328-29 (cf. note 1).

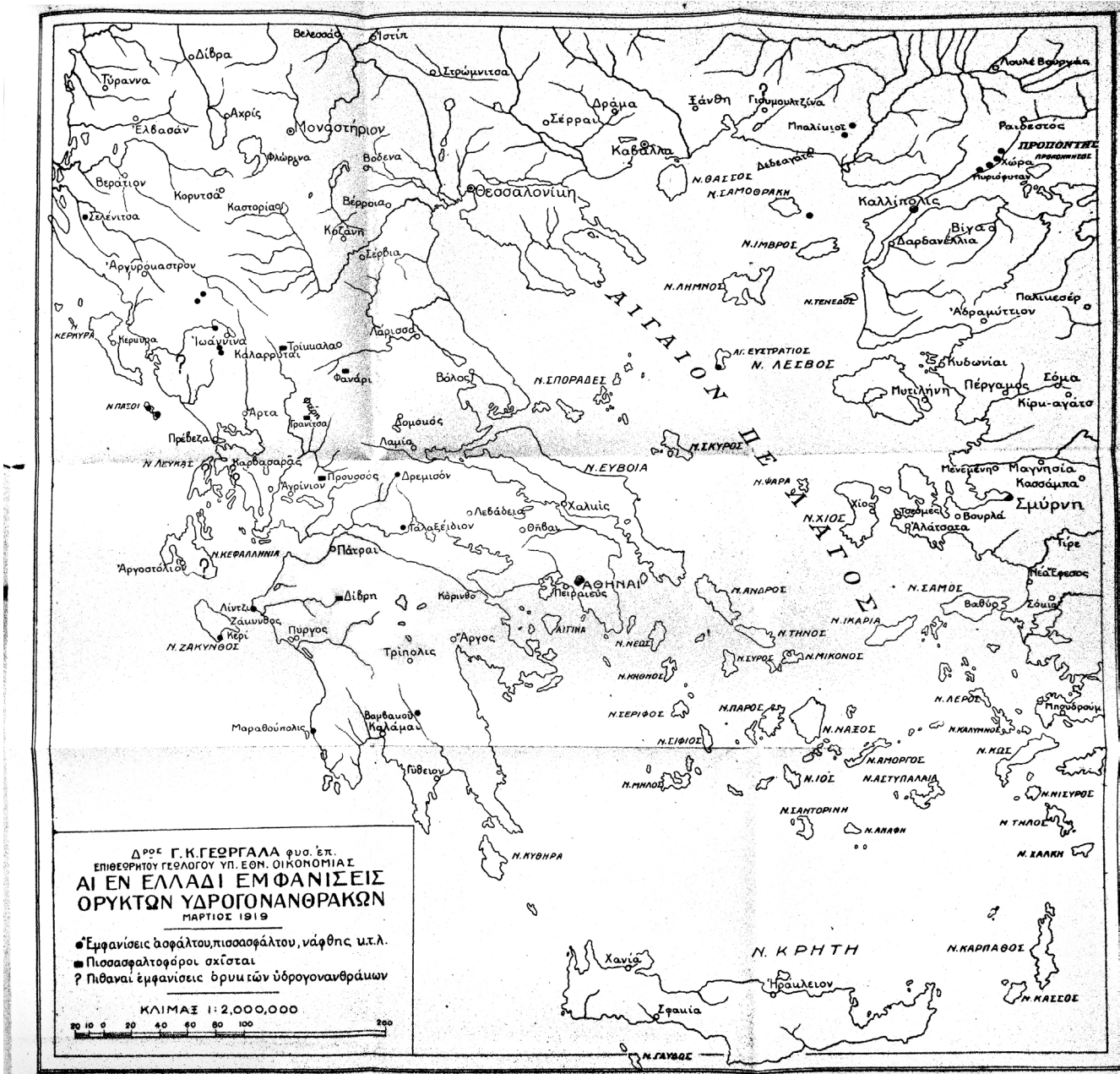


Figure 2: The “appearances of mineral hydrocarbons in Greece”, as depicted in a 1920 report. Zakythos is the last island to the Southwest, opposite Peloponnese. Dragopsa lies near Ioannina city, opposite Corfu Island. Notice the absence of borders. Source: Georgios Georgalas (ed.), Επιτροπή επί των καυσίμων: Πορίσματα, εκθέσεις και υπομνήματα του μεταλλευτικού τμήματος αυτής [Fuel Committee: Findings, Reports and Memoranda of its Mining Section] (Athens: Ipourgeion Ethnikis Oikonomias, 1920), appendix.

exploitation”. Speaking of industrial exploitation, he proposed building an oil refinery in Piraeus and requested that the Syndicate be granted exclusive refinement rights for thirty years.²⁸ The Greek Government did not share Pouyenne’s optimism. The “relevant bureaus” of the Ministry

of National Economy deemed the Syndicate’s exploration attempts to be “uncertain” and concluded that the Syndicate was in fact trying “to secure an oil refinement privilege in advance”. They judged any agreement to be “premature”.²⁹

²⁸ Alfred Pouyenne, “Syndicat Franco-Hellenique des Petroles à Monsieur le President du Conseil du Gouvernement Hellenique” (Folder 353), General State Archives, Prime Minister’s Office, 13-26/12/1919.

²⁹ Konstantinos Spyridis, “Konstantinos Spyridis to Eleftherios Venizelos” (Folder 353), General State Archives, Prime Minister’s Office, 12/01/1920. We are grateful to Nikos Alexis for sharing these documents with us.

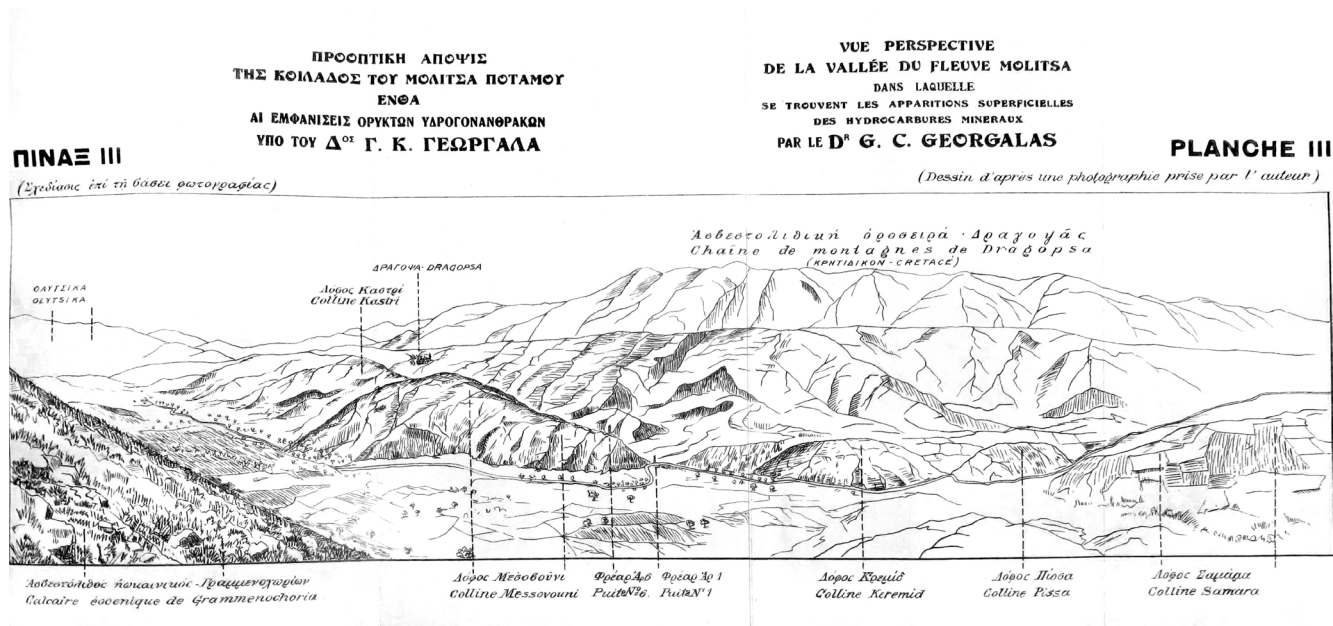


Figure 3: The valley of the Molitsa River as depicted by Georgalas “on the basis of a photograph”, that was presumably taken during his 1920 trip with C. Niculescu. Dragopsa village appears to the upper middle and left. Source: Georgios Georgalas, *Αι εν Ηπειρώ εμφανίσεις ορυκτών υδρογονανθράκων και αι επ’ αυτών ερευνητικά εργασία* [The Mineral Hydrocarbons in Epirus and research work thereon] (Athens: Ipourgeion Ethnikis Oikonomias, 1922), table II.

16 Obviously, the “relevant bureaus” of the Ministry of National Economy were much less naive than Pouyanne thought them to be. They were also newly founded; the agency that would later be known as the “Geological Bureau of the Ministry of National Economy” was founded in December 1918. The Head of the Bureau, Georgios Georgalas (1887–1980) was a young geologist who had completed his dissertation in 1909. Initially side-lined by other competing young geologists, in 1918 he somehow managed to be appointed Inspector Geologist of the Ministry of National Economy and embarked on a rapid familiarization with the technical and political aspects of the fossil fuel question.³⁰

³⁰ Georgios Georgalas, “Αι εν Ελλάδι εμφανίσεις ορυκτών υδρογονανθράκων” [Hydrocarbon Appearances in Greece] in George Georgalas (ed.), *Επιτροπή επί των καυσίμων: Πορίσματα, εκθέσεις και υπομνήματα του μεταλλευτικού τμήματος αυτής*, [The Fuel Committee: Findings, Reports and Memoranda of its Mining Section] (Athens: Ministry of National Economy, 1920). For this complicated story, see Christos Karampatos, “Το γενικότερο συμφέρον του κράτους: Η «συνέχεια των ελληνικών χωρών» και οι Έλληνες γεωλόγοι, 1908–1925” [In the State’s General Interest: Greek Geologists and the “Continuity of the Greek Lands”, 1908–1925], *Ta Istorika*, vol. 73, 2021, 125–54; also, Christos Karampatos, Spyros Tzokas, Giogros Velegrakis, Gelina Harlaftis, “Is There Oil in Greece? Oil Exploration and Scientific Conflict during the First Years of the Greek Geological Survey”, *The Historical review/La Revue Historique*, vol. 19, 2023, 77–111.

In August 1920, Romanian geologist Niculescu 17 was called back to Epirus and began exploratory drilling. Georgalas immediately used his position as Inspector Geologist to secure a mediating position between the Franco-Greek Petroleum Syndicate and the Ministry of National Economy. He enjoyed access to Niculescu’s reports towards the Syndicate and had the opportunity to personally visit the site of the exploratory drillings in the company of Niculescu himself (fig. 3).³¹

All this combined with a growing realization of 18 his new role as a public intellectual. The young geologist quickly realized the value of “hobnobbing with political and social elites”, as evidenced by his eventual enrolment into the Greek freemason society.³² He also learnt to manoeuvre between the sceptic stance privately expressed

³¹ Georgios Georgalas, *Αι εν Ηπειρώ εμφανίσεις ορυκτών υδρογονανθράκων και αι επ’ αυτών ερευνητικά εργασία* [The mineral hydrocarbons appearances in Epirus and the research work thereon] (Athens: Ministry of National Economy, 1922), 21 and 29. Georgalas’ visit probably took place during the autumn of 1920.

³² Jeffrey Bartos, “The Accumulated Knowledge of a Thousand Generations: U.S. Mining Engineers as Public Intellectuals”, *Technology and Culture*, vol. 62, n° 4, 2021, 1174. Georgalas freemason liaisons culminated in the 1930s; see below, section 4.

in the Ministry's internal communication and a scientifically informed optimism that came to characterize his public interventions.³³ Such interventions typically began by pointing out the strategic significance of "king oil" and predicting the imminent "practical disappearance of anthracite".³⁴ Strategic predictions were followed by a display of Georgalas' rapid acquaintance with petroleum geology. Mrazek's novel "diapiric anticline" notion was casually enrolled as a geological theory possessing the rare trait of immediate practical application. The Romanian's suggestion that "salt diapirs provided an effective seal for hydrocarbons",³⁵ could direct actual drilling attempts so that they "define the extent of the deposit under the hypothesis that the carboniferous strata meet underground, enclosed by the impermeable salt-bearing strata".³⁶

19 His most notable discovery, however, was the rhetoric he came up with to confront the question of the actual existence of oil. From 1920 onwards, he learnt to divide the question in two distinct parts. The first part of the question concerned the existence of oil in Epirus. Here the answer was "definitively positive". The analogies of the "carboniferous zone of Western Greece" to the Carpathian one were plenty, extending from their "genesis" and age to the existence of "diapiric anticlines". The second part of the question concerned the economic viability of the oil deposits. Regrettably this was "impossible to answer"; according to Mrazek "an estimate of this kind of deposits is difficult, if not impossible (...) and when Mrazek speaks thus, I am forced to fall silent".³⁷

³³ Georgalas presented his essay on Epirus oil before the Greek Society of the Physical Sciences in March 1921 and published it in *Bulletin of the Hellenic Society of Natural Sciences*, 2, n° 9-10, 1921. The same essay was published in 1922 as Georgalas, Αι εν Ηπειρώ εμφανίσεις ορυκτών υδρογονανθράκων και αι επ' αυτών ερευνητικά εργασία [The mineral hydrocarbons in Epirus and research work thereon] (cf. note 31).

³⁴ *Ibid.*, 5.

³⁵ Constantin Roman, *Continental Drift: Colliding Continents, Converging Cultures* (Boca Raton: CRC Press, 2000), 12.

³⁶ Georgalas, Αι εν Ηπειρώ εμφανίσεις ορυκτών υδρογονανθράκων και αι επ' αυτών ερευνητικά εργασία [The mineral hydrocarbons in Epirus and research work thereon], 21 (cf. note 31).

³⁷ *Ibid.*, 24, 28.

Georgalas was anything but silent. He had developed a method to rhetorically substantiate the potentiality of the Greek oil deposits, all the while preserving his scientific credibility in the face of possible future debacles. He was developing connections to the daily press; when oil was allegedly discovered in the vicinity of Trikala Thessaly, Georgalas was the one to calmly intervene in the public discourse³⁸ and eventually disprove its existence.³⁹ His context awareness was made evident by his 1922 venture into war geology, a new sub-discipline which he clearly saw as an opportunity to secure employment of geologists by the army.⁴⁰

This rapid buildup of political and geological savvy was fuelled by historical circumstance. In February 1922, the Franco-Greek Petroleum Syndicate abandoned the promising Dragopsa deposits, presumably under orders from "Paris".⁴¹ This decision was less related to geological estimates and more to geopolitical ones. The war in Asia Minor was as good as lost at least since 1921, and France was increasingly supportive of the Turkish efforts.⁴² In August 1922, Georgalas, now recognized as the most prominent Greek oil expert, attended the 13th International Geological Congress in Belgium, to attract anew foreign oil investment to Western Greece. He concluded his presentation with a display of his newly discovered rhetorical ploy: "interesting future [oil] applications" in Epirus

³⁸ Anonymous, "Πετρέλαιον εις Τρίκαλα" [Oil in Trikala], *Empros*, 24 December 1921.

³⁹ Georgios Georgalas, "Natural Gas in Thessaly", *Economic Geology*, vol. 19, n° 1, 1924.

⁴⁰ Georgios Georgalas, "Πολεμογεωλογία" [War Geology], *To Mellon*, vol. 4, n° 39-40, 1922, 10; On the development of "military geology", see Edward Rose, "Military Geology: An American Term with German and French Ancestry", *Earth Sciences History*, vol. 38, n° 2, 2019, 357-70.

⁴¹ Pantelakis, Αλέξανδρος Ν. Διομήδης [1874-1950], 330 (cf. note 1).

⁴² Douglas Dakin, *The Unification of Greece, 1770-1923*, New York: St. Martin's University Press, 1972, 231-232; Giannis Gianoulopoulos, "Εξωτερική πολιτική" [Foreign policy], vol. A2, in Christos Hadziioissif (ed.), *Ιστορία της Ελλάδας στον 20ο Αιώνα* [History of Greece in the twentieth century], (Athens: Vivliorama, 2002), 135.

were, after all, “not impossible”.⁴³ The Greek Army in Asia Minor collapsed only a few days later. In the following decade the Greek State had to come to terms with the end of its imperial aspirations, not to mention the integration of more than a million refugees from Asia Minor. Oil exploration became less of a priority.

- 22 Georgalas’ personal ambitions fared rather better than the national ones. At long last he had acquired tenure, even if it was at the newly established Agricultural University.⁴⁴ In 1925, he became Director of the unified Greek Geological Survey. There are even some subtle hints that he realized the new imperatives governing the now stabilized Greek territory. His next oil exploration proposal was submitted in 1923 and was irrelevant to his well-studied Epirus deposits. It concerned the village of Tavri in Western Thrace, near the city of Alexandroupoli,⁴⁵ an area today thought to be of acute geopolitical significance, serving as a gateway to bypass the Bosphorus straits and disregard the Treaty of Montreux.⁴⁶ In 1923, the proposal was rejected and its actual reasoning would remain unknown until the next decade, and the next section of this paper. As we shall see, it was suggestive of the uses Georgalas would find for his wartime knowledge in the years to come.

THE FORMATION OF A MATURE OIL DISCOURSE, 1933-1940

- 23 The next major appearance of the Greek oil deposits took place during another period of major political turbulence and war anticipation. A 1932 state bankruptcy was followed by acute

⁴³ Georgios Georgalas, *Les hydrocarbures naturels en Grèce – Extrait du Compte Rendu du XIII^e Congrès géologique international 1922* (Liege: Imprimerie Vaillant-Carmanne, 1926), 1359.

⁴⁴ Michail Stefanides, *Εθνικόν και Καποδιστριακόν Πανεπιστήμιον Αθηνών: Εκατονταετηρίς, 1837-1937, Τόμος Ε', Τεύχος Β'* [National and Kapodistrian University of Athens: A centennial, 1837-1937, Vol. V] (Athens: Ethnikon Tipografeion, 1948), 28-31, 67.

⁴⁵ Georgios Georgalas, “Υπάρχουν πετρέλαια εν Ελλάδι; Γ'” [Is there oil in Greece?, part III], *Chemical Annals*, vol. 2, n° 4, 1937, 82.

⁴⁶ Laura Pennisi, “Greece between the hammer and the anvil: Geopolitical Games in the Eastern Aegean”, *SpecialEurasia.com*, 05/11/2021. Url: <https://www.specialeurasia.com/2021/11/05/greece-between-the-hammer-and-the-anvil-geopolitical-games-in-the-eastern-aegean/> (accessed 01/03/2023).

political instability. Following a failed coup in March 1935, Ioannis Metaxas, former General, Military Engineer and Minister of Public Works, successfully imposed a dictatorship in August 1936.

The Greek State’s oil aspirations were much more consistent than its political system. They resurfaced in 1933, immediately following the 1932 bankruptcy.⁴⁷ They gained momentum in the beginnings of 1936, only months before the official imposition of the Metaxas dictatorship, when “large oil deposits” of “colossal importance” were discovered in Western Thrace.⁴⁸ The most informed series of relevant articles appeared in *Oikonomologos Athinon* newspaper only days after the dictatorship was officially imposed and went on until January 1937. Here, next to Herodotus, one could find “the director of the Geological Survey G. Georgalas [who] as early as 1920 scientifically examined the Ioannina region with quite satisfactory results”. Exploratory drillings were taking place in Tavri village, near Alexandroupoli, the exact place of Georgalas’ 1923 rejected drilling proposal.⁴⁹

The reasoning was now made clearer. An oil discovery in Thrace would lead to a “clash” between oil majors such as “Dutch Royal [sic], the Anglo-Persian Company, and Standard Socony Corporation, always ready to quarrel over the new deposits as part of their struggle to demarcate spheres of influence between the New and the Old World”.⁵⁰ However, the oil majors “in fact represent[ed] the interests of the British and the American State”, who were the “actual” entities “antagonizing for supremacy over Greece”.⁵¹ Oil

⁴⁷ Pantelakis, Αλέξανδρος Ν. Διομήδης [1874-1950], 336-341 (cf. note 1).

⁴⁸ E. Tzamouranis, “Έχει και η Ελλάς πηγάς πετρελαίου – Το πολύτιμον υγρόν – τι ευρέθη εις Θράκην,” [Greece possesses oil too – The valuable liquid – What was discovered in Thrace], *Athinaika Nea*, 6 February 1936.

⁴⁹ (Anonymous), “Υπάρχει Πετρέλαιον εν Ελλάδι;” [Is there oil in Greece?], *Oikonomologos Athinon*, 15 August 1936.

⁵⁰ Αρ. Avramidis, “Υπάρχει πετρέλαιον εν τη Δυτική Θράκη;” [Is there oil in Western Thrace?] *Oikonomologos Athinon*, 5 December 1936.

⁵¹ (Anonymous), “Υπάρχει Πετρέλαιον εν Ελλάδι;” [Is there oil in Greece?] (cf. note 49).

exploration was tantamount to tying the interests of the Great Powers in a crucial point of the Greek Territory and was thus much more beneficial than the simple discovery of oil would suggest.

26 There can be little doubt that the actual source of the articles was Georgalas. He was referred by name, and his former exploration proposals were resurfacing. Most indicatively, the titles and argumentation of the articles invariably followed his 1920s rhetorical ploy, now condensed in a deceptively simple question: “Is there oil in Greece?”⁵² In January 1937 Georgalas, now a full-fledged freemason,⁵³ took over the chair of Mineralogy and Petrology of the University of Athens. The title of his inaugural address was “Is there Oil in Greece?” The answer was formulated in the usual manner. Greece “certainly possesse[d] oil deposits, although of unknown quantity and synthesis”. Exploratory drilling had to be “immediately performed” in areas where “serious scientific evidence of the possibility of oil deposits exists”. His geological and rhetorical tour de force was met by “vigorous and extended applause” by the esteemed audience.⁵⁴

27 Georgalas’ public interventions stemmed from much more subtle dealings that were in the meantime taking place inside the Greek Administration. Ioannis Drosopoulos, Governor of the National Bank of Greece, and Alexandros Diomidis, former Minister of Economics, were amid negotiations with various foreign actors,

including the British Hambro Bank, the Mexican Eagle Oil Company and unnamed “German interests”. The two Greek statesmen were aware of oil’s international implications and were trying to secure British funding by threatening that otherwise the concessions in Thrace would regrettably “pass to German hands”.⁵⁵ When they nevertheless failed to secure British funding for the Thracian venture, the National Bank of Greece urged to comply. Despite the negative internal reports received, Drosopoulos insisted that oil exploration in Thrace was “of such importance for the national economy” that the National Bank should fund it even “à fonds perdus”.⁵⁶

Indeed, the National Bank went on to invest 28 20.000.000 drachmas of “fond perdus”, initiating a period of intense oil exploration that would last until 1939. In addition to Western Thrace, the areas explored included West Peloponnese, Central Macedonia and, once again, Epirus and Zakynthos.⁵⁷ The press went wild on several occasions.⁵⁸ Meanwhile, a small army of Greek and foreign oil experts were exploring the Greek territory. The reports delivered before 1939 were invariably positive, if not enthusiastic. Beside Georgalas’ subtle manoeuvres between scientific credibility and all-out speculation, we find Ioannis Trikalinos, another professor at the University of Athens, who as early as 1936, used similar rhetoric to predict that the exploitation of the Epirus area would accrue “big profits”.⁵⁹

⁵² An article with the exact same title had appeared in the same newspaper in 1933, when the Greek state began auctioning concessions for Macedonia and Thrace to no avail; Ar. Avramidis, “Διεπιστώθη η ύπαρξις πετρελαίου εν τη Δυτική Θράκη” [The existence of oil verified in Western Thrace], *Oikonomologos Athinon*, 9 January 1937.

⁵³ Georgalas edited the first volume of the Greek “Freemason Encyclopedia”, published in 1934; see Georgios Georgalas and Nestoras Laskaris, *Εγκυκλοπαίδεια της Ελευθέρας Τεκτονικής [Encyclopedia of Freemasonry]*, Volume A, 1934.

⁵⁴ (Αnonymous), “Τα πετρέλαια της Ελλάδος – Τι είπεν ο κ. Γεωργαλάς” [The Oils of Greece – What was said by Mr. Georgalas], *Athinaika Nea*, 1937; this article summarizes the conclusions of Georgios Georgalas, *Υπάρχουν πετρέλαια εν Ελλάδι; Εναρκτήριο μάθημα εν τω Πανεπιστημίω (28-1-1937)* [Is there oil in Greece? Inaugural speech in the University of Athens] (Athens: Anatipon Himikon Hronikon, 1937), 67-70.

⁵⁵ Pantelakis, *Αλέξανδρος Ν. Διομήδης [1874-1950]*, 338 (cf. note 1).

⁵⁶ *Ibid.*, 340-341.

⁵⁷ For a recent attempt to summarize Greek oil exploration since 1865, see the Appendix in Fotopoulos, Arapostathis, “From National to Cosmopolitan Hydrocarbons Resource Space: Hydrocarbons, Transnational Politics and the State in Greece”, 322-69 (cf. note 11).

⁵⁸ For example, William Helis, the “multimillionaire Greek expatriate” who was given the concession in Western Peloponnese, was visited by Metaxas himself. The two of them predicted the transformation of the small nearby city of Pyrgos to a “metropolis complete with an airport, automobiles, cinemas, manors etc”; see Athanasios Georgiou, “Ο Πύργος θα Εξελιχθεί Συντόμως εις Μεγάλην Πόλιν” [Pyrgos soon to Evolve into a Major City], *Skrip*, 1 June 1939.

⁵⁹ J. K. Trikalinos, “About the Oil-Asphalt Beds of the Epirus National Area”, item 32, *Archive of the Institute for Geology and Subsurface Research*, 1936, 9.

29 In the meantime, equally informed experts were focusing on Zakynthos. Dionysios Kollaitis, a local industrialist, merchant, and ship-owner, had been granted a concession immediately after the Balkan Wars.⁶⁰ His efforts were revitalized in 1933, when Aristotle Tsakonas, an engineer of the Mining Department of the Ministry of National Economy visited the site. Tsakonas found the geological structure to be “very encouraging” and suggested that “many drillings must take place in different locations”.⁶¹ Kollaitis was indeed funded to keep on drilling until the autumn of 1936, when his installations were visited by Evangelos Bombos, an expert chemist sent by the Greek Navy to assess whether the oil produced was compatible with the Navy’s ship boilers.⁶² Bombos took samples, noticed that they included water “in the form of ultrathin droplets” and went on to remove the water by “intense centrifugation”. Interestingly, he omitted the centrifugation from his calculations of calorific value,⁶³ thus allowing him to conclude that Kollaitis’ oil was “not altogether useless” and suggest “drilling continuation until the creation of a network of shafts”. Kollaitis’ drilling attempts thus went on from 1933 to 1940 at the cost of 1.000 drachmas per meter of depth,⁶⁴ which goes a long way towards explaining his preferential treatment by both Tsakonas and Bombos.

30 On the contrary, reports delivered after the 1939 British war declaration on Germany were invariably disappointing. A report for the Katakolo area near Pyrgos, concluded that “production (...) if present, would be too deep to be reached with the equipment presently at hand”.⁶⁵ Another report, concerning the vicinity of Dragopsa,

Epirus, criticized Trikalinos’ tendency to “more or less accept (...) the original conclusions of Niculescu” and judged his “previous interpretations” to be “quite untenable”.⁶⁶ The final reports on Thrace and Epirus were delivered in 1939 by Vincent Charles Illing, a British “internationally distinguished petroleum geologist”.⁶⁷ Illing refuted the “much promising results” previously delivered by German geologists and concluded that “existing data are sufficient to disprove the existence of oil in marketable quantities”.⁶⁸ These reports were the official reason for the unceremonious abandonment of the 1933-1940 exploration efforts.⁶⁹ However, they were hardly mentioned by the press and remain buried in various State archives until today.

From a historical standpoint, the reports produced before 1939 are much more interesting. The Greek experts worked under the powerful context of motivation provided by economic crisis and war preparation. They were involved in negotiations with foreign oil firms and banks and became aware of oil’s geopolitical intricacies. They manoeuvred between private and state interests, secured press connections, and developed a public rhetoric designed to combine scientific caution with unreserved enthusiasm.

The mature oil discourse produced by 1940 would form the scientific and rhetorical backbone of any future Greek oil exploration venture. Georgalas’ “Is there oil in Greece?” book is still being referred to whenever the oil matter resurfaces in the public discourse. Trikalinos went on to become one of the most prominent experts on the Epirus deposits.⁷⁰ Bombos’ essay on the

60 Elias Gounaris, “Εκθέσεις του Επιθεωρητού των Μεταλλείων Ηλία Γούναρη” [Report of the Inspector of Mines Elias Gounaris], *Nea Imera*, 28 February 1914.

61 Aristotle Tsakonas, “Report on the Petrol Springs (session D. Kolaitis) in Spot Keri”, Item 29, *Archive of the Institute for Geology and Subsurface Research*, 1933, 4 and 5.

62 Bombos, *Τα Πετρέλαια της Ζακύνθου και τα εξ αυτών Προϊόντα* [The oils of Zakynthos and their products], 9 (cf. note 16).

63 *Ibid.*, table 1, fn. 1.

64 *Ibid.*, 23.

65 F. J. Roesli, “William Helis Grecian Project: Memorandum on Geological and Exploration Work”, Item 45, *Archive of the Institute for Geology and Subsurface Research*, 1939, 8.

66 H. Vincent, “Geology of Oil Sand, Bitumen etc. Occurrences in Epirus”, Item 49, *Archive of the Institute for Geology and Subsurface Research*, 1939, 7.

67 Norman Leslie Falcon, “Vincent Charles Illing, 1890-1969”, *Biographical Memoirs of Fellows of the Royal Society*, vol. 16, 1970, 365.

68 Pantelakis, *Αλέξανδρος Ν. Διομήδης [1874-1950]*, 345 (cf. note 1).

69 *Id.*

70 Ioannis Trikalinos, *Τεκτονική Δομή και Γένεσις των Πετρελαιοφόρων Κοιτασμάτων της Ηπείρου* [Tectonic structure and genesis of the Epirus petroliferous strata] (Athens: Coordination Service, 1951).

oils of Zakynthos remains the major source used whenever the existence of oil in Zakynthos needs verification. Oil-wise, the 1933-1940 efforts remained fruitless. At the same time, the potentiality of the Greek oil deposits had been made endless. As we are about to see, this was by no means a small feat.

GEOPOLITICAL NUMBERS, 2010-2023

- 33 The most recent re-emergence of Greek hydrocarbon ambitions can be traced back to 2010. In March, the United States Geological Survey (USGS) published two reports assessing “the undiscovered oil and gas resources” of the eastern Mediterranean to more than 3 billion barrels of “recoverable oil” and more than 300 trillion cubic feet of “recoverable gas”.⁷¹ The reports “changed the whole geological conception of the area”, by suggesting the existence of a second “petroleum system” besides the already existent one.⁷²
- 34 The USGS’ estimates of the “recoverable reserves” were as political as ever.⁷³ Noble Energy, a U.S. hydrocarbon exploration company, was already working on the “Leviathan” natural gas deposit off the coast of Israel and would announce the discovery a few months later in December 2010.⁷⁴ Noble’s exploratory drillings were also under way

⁷¹ U.S. Geological Survey, “Assessment of Undiscovered Oil and Gas Resources of the Levant Basin Province, Eastern Mediterranean”, *Eastern Mediterranean: U.S. Geological Survey Fact Sheet 2010*, 12/03/2010. Url: <https://pubs.usgs.gov/fs/2010/3014/> (accessed 05/03/2023).

⁷² Giannis Mpasias, «Πέρα από την αναζήτηση υδρογονανθράκων στην Ελλάδα» [Beyond Hydrocarbon Exploration in Greece], in *ΕΔΕΥ, Υδρογονάνθρακες στην Ελλάδα: Ο ρόλος της ΕΔΕΥ* [Hydrocarbons in Greece: The Role of the HHRM] (2020), 11; Spyros Mpellas, «Οι παραχωρήσεις στον ελληνικό χώρο και η διαχείρισή τους από την ΕΔΕΥ» [Concessions inside the Greek Territory and their Direction by the HHRM], in *ΕΔΕΥ, Υδρογονάνθρακες στην Ελλάδα: Ο ρόλος της ΕΔΕΥ* [Hydrocarbons in Greece: The Role of the HHRM] (2020), 34.

⁷³ For early technopolitical estimates by the USGS, see Michael Aaron Dennis, 241-65; for the political uses of “recoverable reserves estimates” in the 1970s, see Mitchell, *Carbon Democracy: Political Power in the Age of Oil*, 180 (cf. note 10).

⁷⁴ “Noble Energy Announces Significant Discovery at Leviathan Offshore Israel”, *Offshore Energy*, 29/12/2010. Url: <https://www.offshore-energy.biz/noble-energy-announces-significant-discovery-at-leviathan-offshore-israel/> (accessed 19/05/2023).



Figure 4: 23 April 2010. Greek Prime Minister George Papandreou announces the Greek bankruptcy from the frontier island of Kastellorizo. Source: Nikos Giannopoulos, “Καστελόριζο: 12 χρόνια από το διάγγελμα Παπανδρέου και από την έναρξη του μνημονιακού ζόφου” [Kastellorizo: 12 years since Papandreou’s proclamation and the beginning of the Memorandum gloom], *News247*, 23/4/2022. Url: <https://www.news247.gr/politiki/kastellorizo-12-chronia-diaggelma-papandreou-apo-enarxi-mnimoniakoy-zofoy.9607291.html> (accessed 17/3/2023).

offshore Cyprus and would lead to the discovery of “about 1 trillion cubic meters of gas”. What’s more, the new discoveries possessed wider geopolitical significance; they were presented as a “major, positive impact on Europe’s gas-diversification strategy, helping it significantly reduce its dependence on Russia”.⁷⁵

The USGS’ timeliness soon acquired a Greek 35 aspect. In April 2010, only a month after the publication of the reports, Greek Prime Minister George Papandreou publicly admitted that the Greek state had gone bankrupt and would seek assistance from the International Monetary Fund. He chose to announce the bankruptcy from the Greek island of Kastellorizo, resulting in an infamous photograph (fig. 4) and a lot of ridicule for his choice to juxtapose such ominous news with the island’s “serene beauty”.

Besides its “serene beauty” however, Kastellorizo 36 was also “the easternmost frontier of Greece”.⁷⁶

⁷⁵ Theodoros Tsakiris, “Cyprus’ Natural Gas Strategy: Geopolitical and Economic Preconditions”, *Mediterranean Quarterly*, vol. 28, n° 1, 2017, 29-30.

⁷⁶ “Twelve Years after Kastellorizo”, *Oikonomikos Tahidromos*, 23/04/2022. Url: <https://www.ot.gr/2022/04/23/english-edition/twelve-years-after-kastellorizo/> (accessed 19/05/2023).



Figure 5: A typical depiction of the (supposed) Greek “EEZ” in 2011. The island of Kastellorizo lies to the east of Rhodes and is not visible due to the scale of the map and its miniscule size. According to the Greek Press, its mere existence was enough to connect the Greek “EEZ” with the Cypriot one. Source: Eleftherotyopia newspaper, 9 January 2011.

Unsurprisingly, Papandreou’s island venture acquired deeper meaning in the following months, as two new notions were introduced in the Greek public discourse. The first notion was the “Exclusive Economic Zone”. The “EEZ” was an alternative to the “continental shelf” notion; it had been introduced in International Maritime Law several decades ago, via the 1982 United Nations Convention on the Law of the Sea (UNCLOS). By 2010, Cyprus had already used it in demarcation treaties with Egypt (2003), Lebanon (2007) and Israel (2010).⁷⁷ Rather strangely, the “EEZ” was virtually unheard of in Greek public discourse until 2011; despite having validated UNCLOS in 1995, the Greek State was content to use the “continental shelf” notion to negotiate Greco-Turkish maritime territorial disputes.

⁷⁷ Anastasia Strati, «Η Αποκλειστική Οικονομική Ζώνη και η σημασία της για την αναζήτηση, έρευνα και εκμετάλλευση υδρογονανθράκων», [The Exclusive Economic Zone and its Importance in Hydrocarbon Exploration, Research and Exploitation], in Νικόλαος Φαραντούρης και Τιμολέων Κοσμίδης (επ.), *Δίκαιο Υδρογονανθράκων*, [Hydrocarbon Law] (Αθήνα: Νομική Βιβλιοθήκη, 2015), 115-152.

This neglect for the “EEZ” notion was abruptly reversed from 2011 onwards. According to the Greek press, the “EEZ” would readily replace the “continental shelf” notion. Luckily, Greece was supposedly entitled to a particularly large “Exclusive Economic Zone”, because of the existence of the now familiar island of Kastellorizo. The existence of the miniscule frontier island was allegedly enough to connect the Cypriot and Greek “Exclusive Economic Zones” into a continuous maritime territory (fig. 5).⁷⁸ By 2015, an EEZ proclamation was widely regarded “as the prerequisite of any [Greek] hydrocarbon exploitation venture”.⁷⁹

Which brings us to the second notion introduced after 2010, namely the “hydrocarbon deposits” of Greece and the Eastern Mediterranean. These so-called “deposits of hope” were allegedly “verified by the USGS”. According to the Director of

⁷⁸ Stavros Lygeros, «Η Σημασία Ανακήρυξης Ελληνικής ΑΟΖ» [The significance of declaring a Greek EEZ], *Kathimerini*, 23 January 2011.

⁷⁹ Angelos Syrigos, *Ελληνοτουρκικές Σχέσεις*, [Greco-turkish relations] (Athens: Patakis, 2015).

the Cypriot Energy Agency, Solon Kasinis, they were enough to cater for Cyprus' needs for the next 150 years.⁸⁰ In the case of the bankrupt Greek state, they would lead to instant fiscal salvation, as their "potential" value was estimated to be "about 300 billion dollars".⁸¹ Luckily, they were conveniently placed inside the Greek and Cypriot "Exclusive Economic Zones", especially when Kastellorizo was taken into account.

39 In August 2011, this intense popularization campaign met with actual Greek Strategy with the publication of Law 4001/2011, best known as "the Maniatis Law" from its instigator, Yannis Maniatis, an engineer and University Professor who remained Minister of Environment, Energy and Climate Change for six consecutive years under three different Governments.⁸² Buried in page 81 of 100, one could find article 156, a "modification" of the previous law (2289/1995) governing oil exploration. The legal jargon was almost impenetrable.⁸³ However, according to various Greek international relations experts, Law 4001/2011 was in fact a "de facto demarcation of our continental shelf".⁸⁴ Maniatis has recently admitted that by his 2011 law, "we first (...) have claimed that continental areas and most

importantly islands possess a continental shelf and an Exclusive Economic Zone".⁸⁵ It goes without saying that "islands", included Kastellorizo.

Law 4001/2011 was portrayed as an effort to 40 "modernize the legal and organizational framework" governing Greek hydrocarbon exploration efforts.⁸⁶ Tacitly, it approached the EEZ and continental shelf notions as interchangeable, all the while supporting the Greek position that islands should be included in demarcation agreements despite Turkish wishes. Today it is rightly regarded as the initiation of a "[Greek] tendency to unilaterally demarcate an EEZ",⁸⁷ resulting in a period of intense Greco-Turkish rivalry in the Eastern Mediterranean.

Since their emergence, these precarious plans 41 included an interesting technopolitical aspect. Every "hydrocarbon discovery" is accompanied by an extension to the global transport network of hydrocarbons.⁸⁸ In the case of Greece, the proposed extension was named "Eastmed". The Eastmed is a pharaonic 10-billion-euro offshore pipeline project that would connect the deposits of Israel and Cyprus to Greece, Italy, and thereafter central European countries (fig. 5). Also "the brainchild of Yannis Maniatis", it was first proposed alongside the 2011 Law and is since being discussed.⁸⁹

80 Andreas Kostouris, «Φυσικό Αέριο για 150 Χρόνια στην ΑΟΖ Κύπρου» [Natural Gas for 150 years in the Cypriot EEZ], *Kathimerini*, 16 January 2011.

81 Chrysa Liaggou, «Κοιτάσματα Ελπίδας για Φυσικό Αέριο στον Ελλαδικό Χώρο» [Gas Deposits of Hope in the Greek Territory], *Kathimerini*, 17 December 2010.

82 Maniatis served between 2009 and 2015; see The Secretarial General for Legal and Parliamentary Affairs, "Κυβερνήσεις από το 1909 έως σήμερα", [Governments from 1909 to today]. Url: https://gslegal.gov.gr/?page_id=776&sort=-time (accessed 12/03/2023).

83 The 2011 "modification" stated that "in the absence of a demarcation agreement with neighboring states", the external "border of the Greek Continental Shelf and Exclusive Economic Zone (once demarcated)" would be measured beginning from "baselines" that were "continental and insular alike"; see "Νόμος 4001: Για τη λειτουργία ενεργειακών αγορών ηλεκτρισμού και φυσικού αερίου, για Έρευνα, Παραγωγή και δίκτυα μεταφοράς Υδρογονανθράκων και άλλες ρυθμίσεις" [Law 4001: For the operation of energy markets for electricity and natural gas, for Hydrocarbon Exploration, Production and Transmission Networks and other regulations], *Government Gazette[ΦΕΚ]*, n° 179, 22/08/2011, 3873.

84 Konstantinos Filis, «Η εξαργύρωση της στήριξής μας στο Ουκρανικό» [Redeeming our support for Ukraine], *Kathimerini*, 9 October 2022.

85 Vasiliki Siouti, «Συνέντευξη με τον Γιάννη Μανιάτη» [Interview with Giannis Maniatis], *Lifo*, 11/10/2021. Url: <https://www.lifo.gr/podcasts/lifo-politics/giati-ayxithike-i-timioy-fysikoy-aerioy-kai-pos-tha-ginei-i-metabasi-stin> (50:00-51:10) (accessed 12/3/2023).

86 Fotopoulos, Arapostathis, "From National to Cosmopolitan Hydrocarbons Resource Space: Hydrocarbons, Transnational Politics and the State in Greece", 345 (cf. note 11).

87 Alexis Irakleidis, Andreas Stergiou, Thodoros Tsikas, Konstantinos Tsitelikis, «Για μια διαφορετική ελληνοτουρκική προσέγγιση» [For a Different Greco-Turkish approach], *Kathimerini*, 23 February 2023.

88 Philippe Le Billion, "The Geopolitical Economy of 'Resource Wars'", in Philippe Le Billion (ed.), *The Geopolitics of Resource Wars: Resource Dependence, Governance and Violence*, (London: Frank Cass, 2005), 8.

89 John Psaropoulos, "Pipeline Dreams: Eastern Mediterranean Gas Creates New Allies and Deepens old Enmities", 03/10/2018. Url: <https://www.washingtonexaminer.com/weekly-standard/pipeline-dreams> (accessed 13/03/2023).

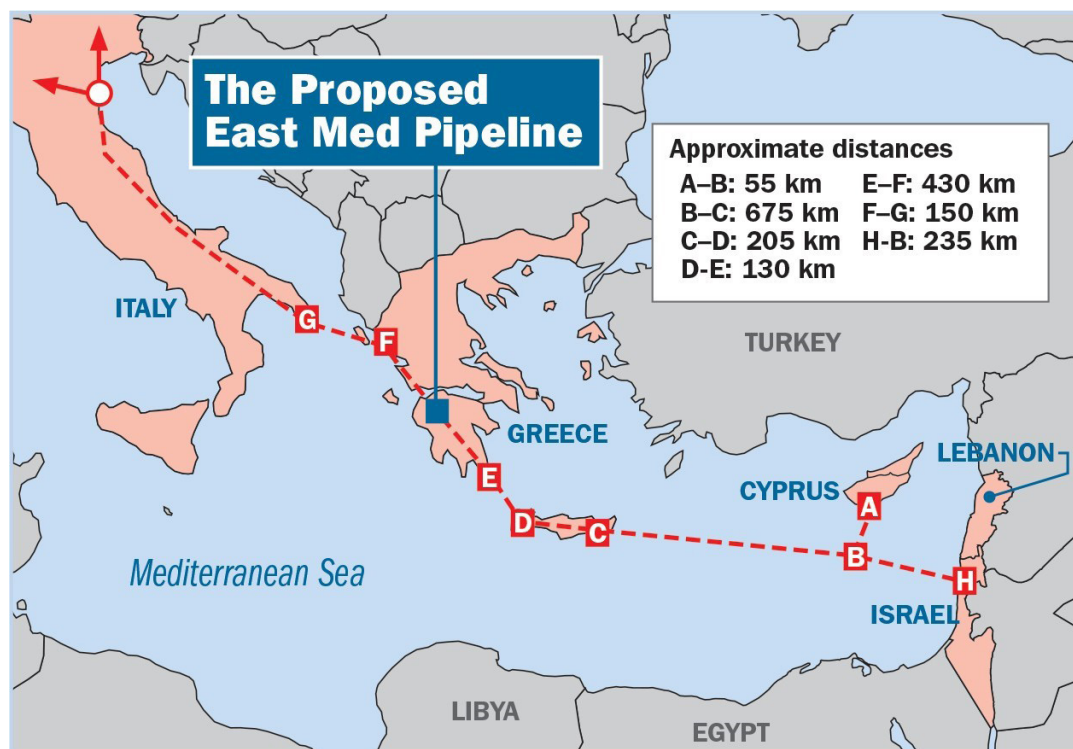


Figure 6: The proposed East med pipeline. Source: Anonymous, “Μπαίνουν οι υπογραφές για EastMed: Τα πλεονεκτήματα και η συμμαχία που... τρελαίνει τον Ερντογάν” [Signatures for EastMed: the advantages and the alliance that drives Erdogan crazy], *Hellas Journal*, 1/1/2020. Url: <https://hellasjournal.com/2020/01/benoun-i-ipografes-gia-eastmed-ta-pleonektimata-ke-i-simmachia-pou-treli-ton-erntogan/> (accessed 17/3/2023).

42 The Eastmed project aspires to enroll foreign support for the Greek plans through its supposed geopolitical significance. If ever completed, it would provide large European countries with non-Russian hydrocarbons by a non-Turkish route.⁹⁰ It would be an alternative to the already existent Baku – Ceyhan pipeline. It would thus align Greek and Cypriot national interests to those of Israel and the United States and consolidate Greek dominance in the Eastern Mediterranean from Cyprus to Crete.⁹¹ Theodoros Tsakiris, a Cypriot energy expert who served as Maniatis’ scientific advisor, summarized the stakes involved. According to him, Greek and Cypriot hydrocarbon policy is not “driven by

the discovery of hydrocarbons and the need to monetize them. It is driven primarily by the need to counterbalance [the Turkish] vision of the Eastern Mediterranean as an ‘Ottoman Lake’ within the framework of its revisionist policy”.⁹²

The Greek community of oil experts readily 43 enrolled in this multi-faceted effort. In 2012, the Energy Commission of the Academy of Athens organized a conference titled “Greek Hydrocarbons: From Exploration to Development”. Maniatis, who delivered the introductory speech, was adamant: “Greece will not leave an inch of its sovereignty unexplored, be it continental or maritime”.⁹³ The experts present included a

⁹⁰ For the origins of the “European dependence on Soviet Gas” see Per Høgselius, *Red Gas: Russia and the Origins of European Energy Dependence*, (New York: Palgrave/Macmillan, 2013). For large technical systems that “may be built for one purpose and later on be exploited for another”, see 223.

⁹¹ Theodoros Tsakiris, *Ενεργειακή Ασφάλεια και Διεθνής Πολιτική* [Energy Security and International Policy] (Athens: Papazisis, 2018), 755-56.

⁹² Theodoros Tsakiris [Cyprus’ Natural Gas Strategy], 30. For Tsakiris’ “three years tenure” as a scientific advisor in the Greek ministry of energy, see Tsakiris [Energy Security and International Policy], 10.

⁹³ Yannis Maniatis, «Ο Ορυκτός Πλούτος Θεμέλιο Ανάπτυξης» [Mineral Wealth: The foundation of Development], in Loukas Christoforou (ed.), *Ελληνικοί Υδρογονάνθρακες: Από την Έρευνα στην Εκμετάλλευση* [Greek Hydrocarbons: From Research to Development] (Athens: Akadimia Athinon, 2012), 29.

long list of Greece's most prominent engineers, petroleum geologists and policy makers. Granted, some of them remained doubtful of the existence of hydrocarbon deposits, especially when pertaining to the South of Crete.⁹⁴ The rhetoric used to overcome such doubts was eerily reminiscent of Georgios Georgalas: "*There are hydrocarbons in our country. The question is how many, where and how they will be exploited*".⁹⁵

44 Actual methods, on the other hand, had somewhat improved. Elias Konofagos, a prominent chemical engineer and former executive of the Greek Petroleum Corporation [Ellinika Petrelaia], participated in the 2012 conference, along with his colleagues Antonios Foskolos and Alain Bruneton. Their complex geological argumentation concluded that the area offshore Crete signaled "a new perspective for locating hydrocarbon deposits in Greece".⁹⁶ Konofagos described his methods in a 2013 newspaper interview:

Solon Kasinis, the Cypriot energy director, called me and asked: "Elias is there something to the south of Crete?"

I answered: "I believe there is, but I cannot say; it's only a possibility".

And he tells me: "Elias, even if there is nothing to the south of Crete the area should be opened to research for geopolitical reasons (...). Just imagine if -lo and behold- we find something, how much the transport cost will be reduced by connecting the deposits, for Europe and all of us".

⁹⁴ Loukas Christoforou, «Πορίσματα ημερίδας» [Workshop conclusions], in Loukas Christoforou, op. cit., 18.

⁹⁵ Loukas Christoforou, «Πρόγραμμα» [Programme], in Loukas Christoforou, op. cit., 11. Emphasis in the original.

⁹⁶ Antonios Foskolos, Ilias Konofagos and Alain Bruneton, "Οι Συγκλίνουσες Λιθοσφαιρικές Πλάκες και η Ταυτόχρονη Ύπαρξη Πρίσματος Επαύξεσης και Λασποφαισειτών στην Υπεράκτιο Νότια Κρήτη. Νέες Προοπτικές Εντοπισμού Κοιτασμάτων Υδρογονανθράκων στην Ελλάδα" [The Occurrence of Converging Plates, Mud Flow Volcanoes and Accretionary Prism Complexes offshore Crete. A New Perspective for Greece's Oil and Natural Gas Resources], in Loukas Christoforou, op. cit., 115-138, 135. For the same article in English, see Id. "Cretan Gas Fields – A New Perspective for Greece's Hydrocarbon Resources", *Pytheas Market Focus*, 30/3/2012.

Thus motivated, Konofagos went on to process "official and unofficial seismic data" that came in his possession by means he neglected to mention. He used his acquaintance with Alain Bruneton, former Director of the French Petroleum Institute, to partake of the Institute's computing facilities. They thus calculated that there was "a 50% chance" to discover hydrocarbons to the south of Crete.⁹⁷ Faced with "accusations from colleagues", Konofagos described his scientific calculations with the phrase "I call these numbers, geopolitical numbers".⁹⁸

These were geopolitical numbers indeed. Since its initial inception, the Eastmed pipeline project faced severe critique concerning its economic viability. If hydrocarbon deposits were somehow discovered along its route, the project would be made much more viable. In the following years Konofagos went on to become one of the most active promoters of the "expansion of Greek hydrocarbon resource spaces in the Eastern Mediterranean".⁹⁹ Unsurprisingly, other Greek hydrocarbon experts were following suit. At least as early as 2015, a consensus had been formed according to which "indications of hydrocarbon deposits of substantial quality [could be found (...)] along an arc from the North Ionian Sea, South of Crete to the island of Kastellorizo".¹⁰⁰

The arc of potentiality delineated by Greek geologists followed the proposed course of the Eastmed pipeline. It also included a familiar

⁹⁷ The 50% estimate cited here is a popularized summary of the methods used to categorize hydrocarbon resources as "possible", "probable" and "proved"; see Society of Petroleum Engineers, "Petroleum Resources Classification System and Definitions". Url: <https://www.spe.org/en/industry/petroleum-resources-classification-system-definitions/> (accessed 15/03/2023).

⁹⁸ Sofia Papaioannou, "Να προηγηθεί η Έρευνα σε κοιτάσματα της Ν. Κρήτης" [Research of Offshore South Crete Deposits should Take Precedence], *Kathimerini*, 20 January 2013.

⁹⁹ Fotopoulos, Arapostathis, "From National to Cosmopolitan Hydrocarbons Resource Space: Hydrocarbons, Transnational Politics and the State in Greece", 347 (cf. note 11).

¹⁰⁰ Fotopoulos, Arapostathis, "From National to Cosmopolitan Hydrocarbons Resource Space: Hydrocarbons, Transnational Politics and the State in Greece", 345-346 (cf. note 11). The source here is a 2022 interview with Yannis Grigoriou, former CEO of the Hellenic Petroleum Company Upstream Division.

vicinity of Epirus. As early as 2014, new oil exploration attempts were under way in Dragopso by a “consortium of [Spanish] Repsol and [Greek] Energean Oil”. An informative meeting was organized in nearby Ioannina city. The expert geologist delivering the keynote speech resorted to a familiar ploy: “we know that an oil system exists, but we do not know the whereabouts of the deposit”. “Yet”, concluded the article, “data gathering is already under way (...) the first drill will be installed within three years”.¹⁰¹

48 Georgalas’ rhetorical contraptions were reverberating all over Greece. For the time being, the outcome is also similar. When Repsol abandoned Greece, seven years later, no drillings had yet been performed.¹⁰² In 2022, as this piece was being written, we learnt that exploratory drilling would commence anew in Epirus “within 2023”. The expensive task would be undertaken by the (Greek) Energean Co., this time with no foreign assistance. The possibility of Greek “fonds perdus”¹⁰³ was once more looming on the horizon, as the current Minister of Energy and Environment, Kostas Skrekas, announced the “possibility of success” to be 15%. Thankfully, he was more confident when estimating the value of the Epirus deposit to 5 billion Euros.¹⁰⁴

¹⁰¹ Anonymous, “Ένας αιώνας έρευνας για τα πετρέλαια των Ιωαννίνων,” [A century of exploration for the Ioannina oil] *Epiruspost.gr*, 16/10/2014. Url: <https://www.epiruspost.gr/%CE%AD%CE%BD%CE%B1%CF%82-%CE%B1%CE%B9%CF%8E%CE%BD%CE%B1%CF%82-%CE%AD%CF%81%CE%B5%CF%85%CE%BD%CE%B1%CF%82-%CE%B3%CE%B9%CE%B1-%CF%84%CE%B1-%CF%80%CE%B5%CF%84%CF%81%CE%AD%CE%BB%CE%B1%CE%B9%CE%B1-%CF%84/> (accessed 04/11/2021).

¹⁰² Christos Kolonas, “Τι συμβαίνει με τα πετρέλαια στην Ελλάδα – 10 χρόνια μετά και ούτε μία γεώτρηση,” [What is going on with the Greek hydrocarbon deposits – Ten years later and not even one drilling], *in.gr*, 04/04/2021. Url: <https://www.in.gr/2021/04/04/economy/oikonomikes-eidiseis/ti-symvainei-ta-petrelaia-stin-ellada-10-xronia-meta-kai-oute-mia-geotrisi/> (accessed 04/11/2021).

¹⁰³ Pantelakis, *Αλέξανδρος Ν. Διομήδης [1874-1950]*, 338 (cf. note 1).

¹⁰⁴ Chrissa Liaggou, «Υδρογονάνθρακες: Ερευνητική γεώτρηση στα Ιωάννινα το 2023» [Hydrocarbons: Exploratory Drilling in Ioannina in 2023], *Kathimerini*, 12 November 2022.

Actual implications are much more sinister. 49 Other states of the Eastern Mediterranean are aware of the Greek Eastmed strategy and proceed to plans of their own. The Turkish plans, to name the most important example, also enroll “earth politics in the service of neo-imperialist (...) aspirations”.¹⁰⁵ A good part of these aspirations stems from a decades-long history of Greco-Turkish rivalry in the Eastern Mediterranean. Since 2019, Turkey and Greece have been in the process of claiming overlapping EEZs between Crete and Libya, over Konofagos’ geopolitically estimated “probable” deposits. In January 2023, Exxon Mobil was performing seismic research in these disputed waters. Results were once more promising. As for a possible Turkish response, there was “nothing to worry about”. Exxon Mobil’s presence offshore Crete guaranteed “American support for this most geopolitically difficult area”.¹⁰⁶

The reporter delivering this spicy blend of geo- 50 physics, geopolitics and carefree war is the same one who introduced the “deposits of hope” 13 years ago. She probably remains unaware of the identical accounts produced by her peers in 1936.

CONCLUSION: ON HISTORY, PETROCULTURE AND WAR

We began this essay by pointing out that hydro- 51 carbon-wise Greece is quite the peculiar place. This hydrocarbon peculiarity is not a characteristic of the Greek subsoil; it is rather a peculiarity of a rhetorical, political and in fact historical nature. In any case, Greek citizens are bound to encounter it at some point of their lifespan, usually as indisputable “facts” that are abruptly introduced into the public discourse. The authors of this article are a case in point: we all reached adulthood in Greece during the 1990s and 2000s having not once heard of the “Greek hydrocarbon deposits”, their long history and ominous implications. And yet, from the 2010 “Greek crisis” onwards, we were rapidly introduced into the

¹⁰⁵ Zeynep Oguz, “Speculative Undergrounds”, 29, (cf. note 11).

¹⁰⁶ Chrissa Liaggou, «Η Exxon βιάζεται για Γεωτρήσεις στην Κρήτη» [Exxon in a rush to conduct drilling in Crete], *Kathimerini*, 9 January 2023.

hydrocarbon discourse that arose out of thin air in all its rhetorical and technopolitical glory, as if not one day had passed since the times of Nikolaos Minotos, Georgios Georgalas, and their peers. The Greek hydrocarbons displayed their ability to produce material effects despite their physical absence, as it had happened so many times in the past.¹⁰⁷

52 As for the nature of these material effects, Ross Barrett and Daniel Worden have defined “oil culture” as “the symbolic forms that rearrange daily experience around oil-bound ways of life”.¹⁰⁸ Such a rearrangement took place in post-2010 crisis-ridden Greece. It was a very abrupt and very material process that carries on for more than a decade, leading to the reemergence of long-standing State rivalries. The “symbolic forms” that rearranged our daily experience so abruptly, presented themselves as “science”. They were in fact what Roberto Cantoni calls “science in grey”: a mixture of petroleum geology, geopolitics and tacit knowledge amassed during one and a half century of Greek crises, wars, and oil exploration attempts. Symbolic forms of this kind are rarely analysed in the petroculture literature produced since 2010.¹⁰⁹ We think this neglect to be worthy of attention; one can hardly imagine a symbolic form more powerful, more diffuse or more opaque than science and technology.

53 In the preceding sections we have used the tools of the historian of science and technology to narrate the emergence and development of a Greek version of petroleum geology. Previous historical studies have shown that oil experts can and do assert political power through science and technology. They are often aware of the political stakes involved in their scientific undertakings.

¹⁰⁷ Richardson, Weszkalnys, “Resource Materialities”, 22, (cf. note 5).

¹⁰⁸ Ross Barrett, Daniel Worden, “Introduction”, in Ross Barrett and Daniel Worden (eds.), *Oil Culture*, (Minneapolis: University of Minnesota Press, 2014), xxvi.

¹⁰⁹ For this “gap in the literature” and some exceptions in addition to the ones cited in the introduction, see Cantoni *Oil Exploration, Diplomacy, and Security in the Early Cold War: The Enemy Underground*, 15-7 (cf. note 14); for “science in grey”, see *Ibid.*, 248-49 (cf. note 14).

Their artisanal practices are heavily motivated by historical context. The science they practice is tacitly connected to wider state imperatives. Their Greek counterparts hardly proved lacking in any of these departments.

We have restricted our historical narrative to instances that reverberate to the present. One such instance was the rhetorical ploy between “Is there oil” and “is this oil exploitable” which was introduced in 1921 and matured until 1940. Such ploys are not the exclusive intellectual property of Greek experts. They are rather a case of simultaneous invention characteristic of international oil exploration discourse since its beginnings. Gisa Weszkalnys has detected similar rhetorical ploys in São Tomé and Príncipe, where oil exploration also carries on since 1876 with meager results. She described how such ploys focus on “what people know and what they know they do not know” and how their proponents employ a fusion of practices, such as exploratory drillings, geological reports, and skilful rhetoric, to produce “an extended meanwhile in which [oil] potentiality is reassured”.¹¹⁰ As we have seen, Nikolaos Minotos, a humble Zakynthos-based lawyer, could grasp the merits of this endless potentiality and rhetorically justify it as early as 1894. Georgios Georgalas, a prominent Greek geologist, invented a way to scientifically substantiate it as early as 1920. His invention matured and saw widespread use until 1940; it currently reverberates all over Greece.

Another recurring aspect was the close relations between Greek petroleum geology and geopolitics. We have detected traces of these relations in the 1890s, the 1920s and the 1930s. They have been made clearer in the post-2010 period. Greek hydrocarbon experts are acutely aware of the technopolitical –and in fact geopolitical– nature of their scientific estimates. Such estimates constitute a significant part of current Greek petroculture; they are less motivated

¹¹⁰ Gisa Weszkalnys, “Geology, Potentiality, Speculation: On the Indeterminacy of First Oil”, *Cultural Anthropology*, vol. 30, n° 4, 2015, 620, 622.

by hydrocarbon aspirations and more by the current Greco-Turkish rivalry in the Eastern Mediterranean.

56 We should note that, for Greece, the sort of historical scrutiny we attempted remains quite rare. The few relevant historical works speak volumes with their recentness alone; as far as we know, they all date from 2018 onwards.¹¹¹ We think that the absence of historical scrutiny should be counted among the main characteristics of Greek petroculture. This historiographic absence amplifies the effect of two additional characteristics, namely a close relation to petroleum geology and an even closer one to geopolitics and international affairs. The results are ominous. For

more than ten years since the latest re-emergence of the Greek hydrocarbon potentiality, a conflict raged and turned into an international one, involving all States of the Eastern Mediterranean; at times, even a war could not be excluded.¹¹² The reasoning of this decennial conflict remains opaque, covered under the thick layers of a rhetoric that is full of “scientific facts” and devoid of history. Whatever the future holds, we hope that our article serves as a reminder that there is significant price to pay when approaching matters of such social significance with no historical perspective. A reminder that matter and thought, physical reality and ideology, can indeed “entwine”,¹¹³ sometimes in quite sinister ways.

¹¹¹ The sole exception is Christos Hadziiosif, *Η Γηραιά Σελήνη: Η Βιομηχανία στην Ελλάδα*, [An Old Moon: Industry in Greece], (Athens: Themelio, 1993), 194–195. Apart from that, see Pantelakis, *Αλέξανδρος Ν. Διομήδης [1874–1950]*, 345 (cf. note 1); Karampatos, Tzokas, Velegrakis, Harlaftis, “Is there Oil in Greece? Oil exploration and Scientific Conflict during the First Years of the Greek Geological Survey (1917–1925)” (cf. note 30); Karampatos, “Το Γενικότερο Συμφέρον του Κράτους: Η ‘Συνέχεια των Ελληνικών Χωρών’ και οι Έλληνες Γεωλόγοι, 1908–1925” [In The State’s General Interest: Greek Geologists and the ‘Continuity of the Greek Lands’, 1908–1925] (cf. note 30); Fotopoulos, Arapostathis, “From National to Cosmopolitan Hydrocarbons Resource Space: Hydrocarbons, Transnational Politics and the State in Greece” (cf. note 11); Christos Tsakas, “Shipping Tycoons and Authoritarian Rulers: Doing the Oil Business with the Greek Dictatorship, 1967–1974”, *Journal of Modern Greek Studies*, vol. 38, n° 1, 185–208.

¹¹² Anonymous, “Greek and Turkish warships in ‘mini collision’ – defence source,” *Reuters.com*, 14/8/2020. Url: <https://www.reuters.com/article/greece-turkey-warships-idUKL-8N2FG22E> (accessed 16/07/2021).

¹¹³ Richardson, Weszkalnys, “Resource Materialities”, 17 (cf. note 5).

Bibliography

Anonymous

“Μπαίνουν οι υπογραφές για EastMed: Τα πλεονεκτήματα και η συμμαχία που... τρελαίνει τον Ερντογάν” [Signatures for EastMed: the advantages and the alliance that drives Erdogan crazy], *HellasJournal*, 01/01/2020. Url: <https://hellasjournal.com/2020/01/benoun-i-ipografes-gia-eastmed-ta-pleonektimata-ke-i-simmachia-pou-trele-ni-ton-ertogan/> (accessed 17/03/2023).

Anonymous

“Ένας αιώνας έρευνας για τα πετρέλαια των Ιωαννίνων σε δέκα ασπρόμαυρα ντοκουμέντα” [A century of exploration for the Ioannina oil] *Epiruspost.gr*, 16/10/2014. Url: <https://www.epiruspost.gr/%CE%AD%CE%B-D%CE%B1%CF%82-%CE%B1%CE%B9%CF%8E%CE%BD%CE%B1-CF%82-%CE%AD%CF%81%CE-B5%CF%85%CE%BD%CE%B1%CF-82-%CE%B3%CE%B9%CE%B1-CF%84%CE%B1-CF%80%CE-B5%CF%84%CF%81%CE%AD%CE%BB%CE%B1%CE%B9%CE%B1-CF%84/> (accessed 04/11/2021).

Anonymous

“Greek and Turkish warships in ‘mini collision’ – defence source,” *Reuters.com*, 14/8/2020. Url: <https://www.reuters.com/article/greece-turkey-warships-idUKL8N-2FG22E> (accessed 16/07/2021).

Anonymous

“Law 4001: For the operation of energy markets for electricity and natural gas, for Hydrocarbon Exploration, Production and Transmission Networks and other regulations”, *Government Gazette [ΦΕΚ]*, n° 179, 22/08/2011, 03873.

Anonymous

“Noble Energy Announces Significant Discovery at Leviathan Offshore Israel”, *Offshore Energy*, 29/12/2010. Url: <https://www.offshore-energy.biz/noble-energy-announces-significant-discovery-at-leviathan-offshore-israel/> (accessed 19/05/2023).

Anonymous

“Τα πετρέλαια της Ελλάδος – Τι είπεν ο κ. Γεωργαλάς” [Greek Oil – What was said by Mr. Georgalas], *Athinaika Nea*, 1937.

Anonymous

“Υπάρχει Πετρέλαιον εν Ελλάδι;” [Is there oil in Greece?], *Oikonomologos Athinon*, 1936.

Anonymous

“Πετρέλαιον εις Τρίκαλα” [Oil in Trikala], *Impros*, 24 December 1921.

Avramidis Ar.

“Διεπιστώθη η ύπαρξις πετρελαίου εν τη Δυτική Θράκη” [The existence of oil verified in Western Thrace], *Oikonomologos Athinon*, 1937.

“Υπάρχει πετρέλαιον εν τη Δυτική Θράκη;” [Is there oil in Western Thrace?], *Oikonomologos Athinon*, 1936.

Barrett Ross, Worden Daniel

“Introduction”, in Ross Barrett and Daniel Worden (eds.), *Oil Culture* (Minneapolis: University of Minnesota Press, 2014), XVII-XXXIII.

Barry Andrew

Material Politics: Disputes along the Pipeline (Chichester, West Sussex: Wiley-Blackwell, 2013).

Bartos Jeffrey

“The Accumulated Knowledge of a Thousand Generations: U.S. Mining Engineers as Public Intellectuals”, *Technology and Culture*, vol. 62, n° 4, 2021, 1172-1198.

Bombos Evagelos

Τα Πετρέλαια της Ζακύνθου και τα εξ αυτών Προϊόντα [The oils of Zakynthos and their products] (Piraeus: Typografeion Efth. Proukaki, 1938).

Cantoni Roberto

Oil Exploration, Diplomacy, and Security in the Early Cold War: The Enemy Underground (London: Routledge, 2017).

Christoforou Loukas (ed.)

Ελληνικοί Υδρογονάνθρακες: Από την Έρευνα στην Εκμετάλλευση [Greek Hydrocarbons: From Research to Development] (Athens: Akadimia Athinon, 2012).

Coquand Henri

“Description géologique des gisements bitumineux et pétrolifères de Sélenitza dans l’Albanie et de Chieri dans l’île de Zante”, *Bulletin de la Société Géologique de France*, vol. 25, 1868.

Dakin Douglas

The Unification of Greece, 1770-1923 (New York: St. Martin’s University Press, 1972), 231-232.

Dennis Michael Aaron

“Drilling for Dollars: The Making of US Petroleum Estimates, 1921-1925”, *Social Studies of Science*, vol. 15, 1985, 241-265.

Falcon Norman Leslie

“Vincent Charles Illing, 1890-1969”, *Biographical Memoirs of Fellows of the Royal Society*, vol. 16, 1970, 365-384.

Filis Konstantinos

“Η εξαργύρωση της στήριξής μας στο Ουκρανικό” [Redeeming our support for Ukraine], *Kathimerini*, 9 October 2022.

Foskolos Antonios, Konofagos Ilias and Bruneton Alain

“Οι Συγκλίνουσες Λιθοσφαιρικές Πλάκες και η Ταυτόχρονη Ύπαρξη Πρίσματος Επαύξεσης και Λασποηφαιστείων στην Υπεράκτιο Νότια Κρήτη. Νέες Προοπτικές Εντοπισμού Κοιτασμάτων Υδρογονανθράκων στην Ελλάδα” [Converging Lithosphere Plates and the Synchronous Existence of an Accretionary Prism and Mud Volcanoes offshore South Crete. New Perspectives in Locating Hydrocarbon Deposits in Greece], in Loukas Christoforou (ed.), *Ελληνικοί Υδρογονάνθρακες: Από την Έρευνα στην Εκμετάλλευση* [Greek Hydrocarbons: From Research to Development] (Athens: Akadimia Athinon, 2012), 115-138.

Fotopoulos Yannis, Stathis Arapostathis

“From National to Cosmopolitan Hydrocarbons Resource Space: Hydrocarbons, Transnational Politics and the State in Greece”, *Global Environment*, vol. 15, 2022, 322-369.

Georgalas Georgios

Υπάρχουν πετρέλαια εν Ελλάδι; Εναρκτήριο μᾶθημα εν τῷ Πανεπιστημίῳ (28-1-1937) [Is there oil in Greece? Inaugural speech in the University of Athens] (Athens: Anatipon Himikon Hronikon, 1937).

Les hydrocarbures naturels en Grèce – Extrait du Compte Rendu du XIII^e Congrès géologique international 1922 (Liege: Imprimerie Vaillant-Carmagne, 1926).

“Natural Gas in Thessaly”, *Economic Geology*, vol. 19, n° 1, 1924, 92-95.

Αι εν Ηπειρῷ εμφανίσεις ορυκτῶν υδρογονανθράκων και αι ἐπ’ αὐτῶν ἐρευνητικαὶ ἐργασίαι [The mineral hydrocarbons in Epirus and research work thereon] (Athens: Ministry of National Economy, 1922).

“Πολεμογεωλογία” [War Geology], *To Mellon*, vol. 4, n° 39-40, 1922, 1-10.

“Αι εν Ελλάδι εμφανίσεις ορυκτῶν υδρογονανθράκων” [Hydrocarbon Appearances in Greece] in George Georgalas (ed.), *Επιτροπή ἐπὶ των καυσίμων: Πορίσματα, εκθέσεις και υπομνήματα του μεταλλευτικού τμήματος αὐτῆς*, [The Fuel Committee: Its Findings, Reports and Memorandums of its Mining Department] (Athens: Ministry of National Economy, 1920).

“Υπάρχουν πετρέλαια εν Ελλάδι; Γ’” [Is there oil in Greece?, part III], *Chemical Annals*, vol. 2, n° 4, 1937, 81-88.

Georgalas Georgios and Laskaris Nestoras

Εγκυκλοπαίδεια της Ελευθέρως Τεκτονικής [Encyclopedia of Freemasonry], Volume A, 1934.

Georgiou Athanasios

«Ο Πύργος θα Εξελιχθεί Συντόμως εις Μεγάλην Πόλιν» [Pyrgos soon to Evolve into a Major City], *Skip*, 1939.

Gianouloupoulos Giannis

“Εξωτερική πολιτική” [Foreign policy]” vol. A2, in Christos Hadziiosif (ed.), *Ιστορία της Ελλάδας στον 20ο Αιώνα* [History of Greece in the twentieth century] (Athens: Vivliorama, 2002), 135.

Giannopoulos Nikos

“Καστελόριζο: 12 χρόνια από το διάγγελμα Παπανδρέου και από την έναρξη του μνημονιακού ζόφου” [Kastelorizo: 12 years since Papandreou’s proclamation and the beginning of the Memorandum gloom], *News247*, 23/04/2022. Url: <https://www.news247.gr/politiki/kastelorizo-12-chronia-diaggelma-papandreoy-apo-enarxi-mn-imoniakoy-zofoy.9607291.html> (accessed 17/03/2023).

Gounaris Ilias

“Εκθεσις του Επιθεωρητού των Μεταλλείων Ηλία Γούναρη” [Report of the Inspector of Mines Elias Gounaris], *Nea Imera*, 28 February 1914.

Graf Rüdiger

“Expert Estimates of Oil-Reserves and the Transformation of ‘Petroknowledge’ in the Western World from the 1950s to the 1970s”, in Frank Uekötter and Uwe Lübken (eds.), *Managing the Unknown: Essays in Environmental Ignorance*, (New York, Oxford: Berghahn, 2014), 140-167.

Hadziiosif Christos

Η γηραιά Σελήνη: Η Βιομηχανία στην Ελλάδα, [An Old Moon: Industry in Greece], (Athens: Themelio, 1993).

Hecht Gabrielle

The Radiance of France: Nuclear Power and National Identity After World War II, (Cambridge: The MIT Press, 1998).

Hogselius Per

Red Gas: Russia and the Origins of European Energy Dependence (New York: Palgrave Macmillan Transnational History Series, 2013).

Irakleidis Alexis, Stergiou Andreas, Tsikas Thodoros and Tsitelikis Konstantinos

«Για μια διαφορετική ελληνοτουρκική προσέγγιση» [For a Different Greco-Turkish approach], *Kathimerini*, 23 February 2023.

Karampatos Christos

“Το Γενικότερο Συμφέρον του Κράτους: Η ‘Συνέχεια των Ελληνικών Χωρών’ και οι Έλληνες Γεωλόγοι, 1908-1925” [In The State’s General Interest: Greek Geologists and the ‘Continuity of the Greek Lands’, 1908-1925], *Ta Istorika*, vol. 73, 2021, 125-54.

Karampatos Christos, Tzokas Spyros, Velegrakis Giorgos, Harlaftis Gelina

“Is there Oil in Greece? Oil exploration and Scientific Conflict during the First Years of the Greek Geological Survey (1917-1925)”, *The Historical Review/La Revue Historique*, vol. 19, 2023, 77-111.

Kama Kärig

“Temporalities of (un)making a resource: Oil Shales between Presence and Absence”, in Matthew Himley, Elizabeth Havice and Gabriela Valdivia (eds.), *The Routledge Handbook of Critical Resource Geography* (London and New York: Routledge, 2022), 57-67, 59.

Kolonas Christos

“Τι συμβαίνει με τα πετρέλαια στην Ελλάδα – 10 χρόνια μετά και ούτε μία γεώτρηση” [What is going on with the Greek hydrocarbon deposits – Ten years later and not even one drilling], *in.gr*, 04/04/2022. Url: <https://www.in.gr/2021/04/04/economy/oikonomikes-eidiseis/ti-symvain-ei-ta-petrelaia-stin-ellada-10-xronia-meta-kai-oute-mia-geotrisi/> (accessed 05/04/2021).

Kostouris Andreas

«Φυσικό Αέριο για 150 Χρόνια στην ΑΟΖ Κύπρου» [Natural Gas for 150 years in the Cypriot EEZ], *Kathimerini*, 16 January 2011.

Le Billion Philippe

The Geopolitics of Resource Wars (London: Frank Cass, 2005).

Liagou Chrissa

“Κοιτάσματα Ελπίδας για Φυσικό Αέριο στον Ελλαδικό Χώρο” [Gas Deposits of Hope in the Greek Territory], *Kathimerini*, 17 December 2010.

“Lufthansa Model for Prinos Oil”, *ekathimerini*, 31/05/2020. Url: <https://www.ekathimerini.com/economy/253253/lufthansa-model-for-prinos-oil/> (accessed 22/05/2023).

“Υδρογονάνθρακες: Ερευνητική γεώτρηση στα Ιωάννινα το 2023” [Hydrocarbons: Exploratory Drilling in Ioannina in 2023], *Kathimerini*, 12 November 2022.

“Η Εχxon βιάζεται για Γεωτρήσεις στην Κρήτη” [Exxon in a rush to conduct drilling in Crete], *Kathimerini*, 9 January 2023.

Lygeros Stavros

«Η Σημασία Ανακήρυξης Ελληνικής ΑΟΖ» [The significance of declaring a Greek EEZ], *Kathimerini*, 23 January 2011.

Madureira Nuno

“Oil in the Age of Steam,” *Journal of Global History*, vol. 5, n° 1, 2010, 75–94.

Maniatis Yannis

«Ο Ορυκτός Πλούτος Θεμέλιο Ανάπτυξης» [Mineral Wealth: The foundation of Development], in Loukas Christoforou (ed.), *Ελληνικοί Υδρογονάνθρακες: Από την Έρευνα στην Εκμετάλλευση* [Greek Hydrocarbons: From Research to Development] (Athens: Akadimia Athinon, 2012), 27–30.

Marinou Efi

“Τα ξένα συμφέροντα έσβησαν το κερι”, [Foreign Interests have put out Keri], *Eleftherotypia*, 6 August 1995.

Minotos Nikolas

«Περί των εν Ζακύνθω Πετρελαιοφόρων Πηγών και Περί Πετρελαίων εν Γένει: Μελέτη αναγνωσθείσα εν τω Συλλόγω Φιλομαθών Ζακύνθου την 3^{ην} Ιουλίου 1894», [On the Zakynthos petroliferous sources and oil in general: A study read before the Zakynthos studios club on 3 July 1894] (Zakinthos: Ai Mousai, 1894).

Mitchell Timothy

Carbon Democracy: Political Power in the Age of Oil (London: Verso, 2011).

Mpasias Giannis

«Πέρα από την αναζήτηση υδρογονανθράκων στην Ελλάδα» [Beyond Hydrocarbon Exploration in Greece], in ΕΔΕΥ, *Υδρογονάνθρακες στην Ελλάδα: Ο ρόλος της ΕΔΕΥ* [Hydrocarbons in Greece: The Role of the HHRM] (2020), 9–23.

Mpellas Spyros

«Οι παραχωρήσεις στον ελληνικό χώρο και η διαχείρισή τους από την ΕΔΕΥ» [Concessions inside the Greek Territory and their Direction by the HHRM], in ΕΔΕΥ, *Υδρογονάνθρακες στην Ελλάδα: Ο ρόλος της ΕΔΕΥ* [Hydrocarbons in Greece: The Role of the HHRM] (2020), 25–40.

Nedos Vasilis

«NAVTEX κατά Nautical Geo – Το Αβέβαιο Μέλλον του East Med» [NAVTEX vs Nautical Geo – The Unclear Future of the East Med], *Kathimerini*, 8 October 2021.

Niculescu Constantin

“Contributions à la Géologie de l’Épire (Environs de Janina)”, *Bulletin de la Section Scientifique de l’Academie Roumaine*, vol 3, n° 1, 1914.

Nikolaïdis Elias

“Μπορεί το Πετρέλαιο να σώσει την Ελλάδα;” [Can Oil save Greece?], *Τα Νεα*, 25 September 2012.

Oguz Zeynep

“Harnessing Indeterminacy: The Technopolitics of Hydrocarbon Prospects”, *Platypus*, 20/07/2021. Url: <https://blog.castac.org/2021/07/harnessing-indeterminacy-the-technopolitics-of-hydrocarbon-prospects/> (accessed 22/05/2023).

“Speculative Undergrounds: Oil’s Absent Presence, Neo-Imperial Nationalisms, and Earth Politics in Turkey”, *Cultural Anthropology*, vol. 38, n° 3, 2023, 26.

Oreskes Naomi

“A Context of Motivation: US Navy Oceanographic Research and the Discovery of Sea-Floor Hydrothermal Vents,” *Social Studies of Science*, vol. 33, n° 5, 2003, 697–741.

Page Thomas Ethelbert, Capps Edward, Rouse William Henry Denham (eds.)

Herodotus with an English translation by A.D. Godley in four Volumes, II, Books III and IV (London; New York: William Heinemann & G. P. Putnam’s Sons, 1928).

Painter David

“International Oil and National Security,” *Daedalus*, vol. 120, n° 4, 1991, 183–206.

Pantelakis Nikos

Αλέξανδρος Ν. Διομίδης [1874-1950]: Ένας Αυθεντικός Εκπρόσωπος της Αστικής Τάξης [Alexandros Diomidis: A genuine representative of the bourgeoisie, 1874–1950] (Athens: Metamesonykties Ekdoseis, 2018).

Papaioannou Sofia

“Να προηγηθεί η Έρευνα σε κοιτάσματα της Ν. Κρήτης” [‘South Crete Deposits Research should take Precedence’], *Kathimerini*, 20 January 2013.

Papazachos Basil

“Large Seismic Faults in the Hellenic Arc”, *Annali di Geophysica*, vol. XXXIX, n° 5, 1996, 894.

Pennisi Laura

“Greece between the hammer and the anvil: Geopolitical Games in the Eastern Aegean”, *SpecialEurasia.com*, 05/11/2021. Url: <https://www.specialeurasia.com/2021/11/05/greece-between-the-hammer-and-the-anvil-geopolitical-games-in-the-eastern-aegean/> (accessed 01/03/2023).

Pouyanne Alfred

“Syndicat Franco-Hellenique des Petroles à Monsieur le President du Conseil du Gouvernement Hellenique”, (Folder 353), General State Archives, Prime Minister’s Office, 13–26/12/1919.

Psaropoulos John

“Pipeline Dreams: Eastern Mediterranean Gas Creates New Allies and Deepens Old Enmities”, *Washington Examiner*, 03/10/2018. Url: <https://www.washingtonexaminer.com/weekly-standard/pipeline-dreams> (accessed 13/03/2023).

Redwood Sir Boverton

Petroleum, vol. I (London: CharlesGriffin&Co., 1906 [1896]).

Richardson Tanya and Weszkalnys Gisa

“Resource Materialities”, *Anthropological Quarterly*, vol. 87, n° 1, 2014, 5–30, 22.

Roesli F. J.

“William Helis Grecian Project: Memorandum on Geological and Exploration Work”, Item 45, *Archive of the Institute for Geology and Subsurface Research*, 1939.

Roman Constantin

Continental Drift: Colliding Continents, Converging Cultures (Boca Raton: CRC Press, 2000).

Rose Edward

“Military Geology: An American Term with German and French Ancestry”, *Earth Sciences History*, vol. 38, n° 2, 2019, 357–70.

Shulman Peter

“Science can Never Demobilize’: The United States Navy and Petroleum Geology, 1898–1924”, *History and Technology*, vol. 19, n° 4, 2003, 365–95.

Siouti Vasiliki

«Συνέντευξη με τον Γιάννη Μανιάτη» [Interview with Giannis Maniatis], Lifo, 11/10/2021. Url: <https://www.lifo.gr/podcasts/lifo-politics/giati-ayxithike-i-timi-toy-fysikoy-aerioy-kai-pos-tha-ginei-i-metabasi-stin> (accessed 12/03/2023).

Society of Petroleum Engineers

“Petroleum Resources Classification System and Definitions”. Url: <https://www.spe.org/en/industry/petroleum-resources-classification-system-definitions/> (accessed 15/03/2023).

Spyridis Konstantinos,

“Konstantinos Spyridis to Eleftherios Venizelos” (Folder 353), *General State Archives*, Prime Minister’s Office, 12/01/1920.

Stambolis Costis

“Lack of state support hinders Greece’s oil exploration”, *Financial Mirror*, 16/03/2020. Url: <https://www.financialmirror.com/2020/03/16/lack-of-state-support-hinders-greeces-oil-exploration/> (accessed 22/05/2023).

Stefanides Michail

Εθνικόν και Καποδιστριακόν Πανεπιστήμιον Αθηνών: Εκατονταετηρίς, 1837-1937, Τόμος Ε', Τεύχος Β' [National and Kapodistrian University of Athens: A centennial, 1837-1937, Vol. V] (Athens: Ethnikon Tipografeion, 1948).

The Secretariat General for Legal and Parliamentary Affairs

“Κυβερνήσεις από το 1909 έως σήμερα” [Governments from 1909 to today]. Url: https://gslegal.gov.gr/?page_id=776&sort=time (accessed 12/03/2023).

Trikalinos J. K.

“About the Oil-Asphalt Beds of the Epirus National Area”, Item 32, *Archive of the Institute for Geology and Subsurface Research*, 19.

Trikalinos Ioannis

Τεκτονική Δομή και Γένεσις των Πετρελαιοφόρων Κοιτασμάτων της Ηπείρου [Tectonic structure and genesis of the Epirus petroliferous strata] (Athens: Coordination Service, 1951).

Tsakas Christos

Post-war Greco-German Relations, 1953-1981 (London: Palgrave Macmillan, 2022).

“Shipping Tycoons and Authoritarian Rulers: Doing the Oil Business with the Greek Dictatorship, 1967-1974”, *Journal of Modern Greek Studies*, vol. 38, n° 1, 2020, 185–208.

Tsakonas Aristotle

“Report on the Petrol Springs (session D. Kolaitis) in Spot Keri”, Item 29, *Archive of the Institute for Geology and Subsurface Research*, 1933.

Tsakiris Theodoros

Ενεργειακή Ασφάλεια και Διεθνής Πολιτική [Energy Security and International Politics] (Athens: Papazisis, 2018).

“Cyprus’ Natural Gas Strategy: Geopolitical and Economic Preconditions”, *Mediterranean Quarterly*, vol. 28, n° 1, 2017, 29–57.

Tzamouranis E.

“Έχει και η Ελλάς πηγές πετρελαίου – Το πολύτιμον υγρόν – τι ευρέθη εις Θράκην,” [Greece possesses oil too – The valuable liquid – What was discovered in Thrace], *Athinaika Nea*, 6 February 1936.

U.S. Geological Survey

“Assessment of Undiscovered Oil and Gas Resources of the Levant Basin Province, Eastern Mediterranean”, *Eastern Mediterranean: U.S. Geological Survey Fact Sheet 2010*, 12/03/2010. Url: <https://pubs.usgs.gov/fs/2010/3014/> (accessed 05/03/2021).

Vincent H.

“Geology of Oil Sand, Bitumen etc. Occurrences in Epirus”, Item 49, *Archive of the Institute for Geology and Subsurface Research*, 1939.

Weszkalnys Gisa

“Geology, Potentiality, Speculation: On the Indeterminacy of First Oil”, *Cultural Anthropology*, vol. 30, n° 4, 2015, 611–39.

White Israel

“The Geology of Natural Gas”, *Science*, vol. 5, n° 125, 1885, 521–2.

Yergin Daniel

The Prize: The Epic Quest for Oil, Money and Power (New York: Free Press, 2008 [1991]).

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Pervasive extractivism: Petroculture and sedimented histories in Sandrine Bessora's *Petroleum*

Abstract

The aim of this paper is twofold, first to explore how Sandrine Bessora's novel *Petroleum* (2004) engages with the Medea intertext, and thus inserting itself in a specific literary filiation, addresses the writing of history. Second, how, through the merging of the Medea myth with the Mami Wata character from West African beliefs the novel fictionalises the history of colonialism as entangled with that of extractivism, making visible petrol's pervasive participation into neo-colonial practices in Gabon. The paper thus addresses how extractivism and the petroculture framework permit to revise and rewrite the energetic and colonial aspect of Gabonese history. In challenging the traditional unfolding of the Medea myth, Bessora's novel proposes to look at the history of colonisation and natural resource extraction in Gabon through non-European petroculture perspectives.

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Plan of the article

- Introduction
- Energy between the lines: Extractivism and petroculture
- From memory to fiction: Narrating and writing history
- Between myth & history: The historiography of *Petroleum*
- Conclusion

INTRODUCTION

1 This paper seeks to address the following questions: can aspects of Gabonese history be told through the pervasive presence of extractive practices in the country—and extractivism's deeply entangled relation to French colonialism in the country—and can cultural productions tell this history, specifically in Sandrine Bessora's novel *Petroleum* (2004)? In order to address these questions, this paper will argue that the novel can be read as a re-telling of Gabonese history; specifically that of extractivism and colonialism in the country. This can be identified through several narrative elements which excavate this sedimented history of extractivism. First, by identifying a genealogy connecting extractive practices in the country from slavery and its marketplace to timber logging and offshore petroleum extraction—the focus of the novel investigated in this chapter—to manganese mining as a future for the country's extractive industry. The argument here is that the extractivism at the core of this part of Gabonese history is deeply connected to colonial and imperial practices, which have simultaneously erased the country's past. Second, by voicing these silenced histories, I argue that Bessora's novel brings to light the extractive connections just mentioned, catalysed in offshore oil extraction. It does this through the way the novel is written: the narration is constantly intermeshed with historical and factual elements, bringing attention to history and events relating to oil research and extraction in the country. This practice merges fiction and history writing, thus inciting the reader to ask: what is a historical narrative, and how does it differ from a fictional one? It also highlights extractive connections using the intertext of the Medea and the Mami Wata figures, which engage with a broader history of colonial epistemological and intellectual violence, and it connects this history to the Atlantic trade in the case of the Mami Wata figure. This practice permits us to identify oil extraction within a longer history of colonial exploitation in the country. Furthermore, the construction of Medea and Mami Wata as figures of resistance in the novel also permits

highlighting a gendered feature of the violence of oil extraction, and of extractivism more broadly, that undoes kinship across communities and between human and extra-human life.

2 These questions will be addressed by considering how the extractive practices above are connected and embedded in the country's colonial history and identifying how these are part of "petrocultural methods". Specifically, I will think through the extractive side of petroculture's theoretical frames. The paper will then tackle questions about the writing of history in general, but particularly in a colonial context. Finally, it will bring these methodological and theoretical underpinnings into an investigation of Bessora's novel. This will identify how intertextuality and historiography come to play a crucial role in making this novel a "petrohistory". In order to do so, it will engage with the differences between history, myth and fiction and how history is un-written and re-written, and the role myths play in these dynamics. It will also consider the role of feminised and gendered depictions of "nature" in registering extractive violence in terms of conceptual articulation as well as physical and material traces that remain so deeply embedded in our history, that they become sedimented in our consciousness. This will connect the focus onto the use of the Medea and Mami Wata figures and the intertextual role of these figures before the paper's conclusion.

ENERGY BETWEEN THE LINES: EXTRACTIVISM AND PETROCULTURE

3 This paper does not aim to provide an overview or literary review of "petroculture", which is a conceptualisation and methodological approach identifying the pervasiveness of crude oil and refined petroleum and petroleum-derivative products, such as plastic, in our daily lives and cultures.¹ Associated with the term petrofiction,

¹ Sonia Shah, *Crude: The Story of Oil* (New York, Toronto and London: Seven Stories Press, 2004); Imre Szeman, "How to Know about Oil: Energy Epistemologies and Political Futures", *Journal of Canadian Studies/Revue d'études Canadiennes*, vol. 47, n° 3, 2013, 145–168; Stephanie LeMenager, *Living Oil: Petroleum Culture in the*

a category that identifies narratives that focus on oil in its different forms, petroculture is a context within which innumerable cultural productions can be framed.² Indeed, one could arguably claim that *all* cultural productions are petroculture: though they might not focus *specifically* on the extraction, refining, production, distribution, consumption or economy of petroleum, any work featuring modes of transportation fuelled by petrol, plastic products or other petroleum derivative products are essentially woven into the fabric of what is understood as petroculture. Petroculture is a way to read forms of energy production and consumption *between the lines* of cultural works, whether these be literary lines or any forms of visual, multimedia, performative and sound-based arts.³ Thus, petroculture is pervasive not only because our lives have been fuelled by energy consumption more broadly for centuries—our modernity has been built on fossil fuel energy in particular—but also because the theoretical framework established in the Energy Humanities by petrocultural scholars has become itself pervasive across fields in the humanities and social sciences.

- 4 This scholarship is grounded in traditions developed by many scholars focusing on the “priority

American Century (Oxford: Oxford University Press, 2014); Ross Barrett, Daniel Worden, *Oil Culture* (Minneapolis: University of Minnesota Press, 2014); Sheena Wilson, Adam Carlson, Imre Szeman, *Petrocultures: Oil, Politics, Culture* (Montreal: McGill-Queen's University Press, 2017); Imre Szeman, “Conjectures on World Energy Literature: Or, What Is Petroculture?”, *Journal of Postcolonial Writing*, vol. 53, n° 3, 2017; Max Liboiron, *Pollution Is Colonialism* (Durham: Duke University Press, 2021); Simon Orpana, *Gasoline Dreams: Waking up from Petroculture* (New York: Fordham University Press, 2021) and Carola Hein, *Oil Spaces: Exploring the Global Petroleumscape* (London and New York: Routledge, 2022).

² Imre Szeman, “Introduction to Focus: Petrofictions”, *American Book Review*, vol. 33, n° 3, 2012, 3; Jennifer Wenzel, “How to Read for Oil”, *Resilience: A Journal of the Environmental Humanities*, vol. 1, n° 3, 2014, 156–161; Graeme Macdonald, “Oil and World Literature”, *American Book Review*, vol. 33, n° 3, 2017, 7–31; Amy Riddle, “Petrofiction and Political Economy in the Age of Late Fossil Capital”, *Mediations*, vol. 32, n° 1, 2018, 55–74.

³ Here between the line used following Edward Said's theorisation of contrapuntual reading in Edward W. Said, *Culture and Imperialism* (New York: Vintage, 1994).

of the political interpretation of literary texts”, as Fredric Jameson puts it: “It is in detecting the traces of that uninterrupted narrative, in restoring to the surface of the text the repressed and buried reality of this fundamental history, that the doctrine of a political unconscious finds its function and its necessity”.⁴ Jameson's suggestion also means a connection to environmental and energy reality as a socio-political and economic world is deeply entangled with the ecological. Indeed, Patricia Yaeger asks about Jameson's concept: “Does this model of the political unconscious also describe an energy unconscious?”⁵ Moreover, this entanglement is also necessarily tied to our current climate crisis, as Andreas Malm notes: “perhaps global warming is, [...] a political unconscious that already pervades culture”.⁶ It is a climate crisis that is not only ecological, though exacerbated by fossil fuel burning, and which has a longer history in imperial extractive forms of exploitation which have precipitated the consequences of anthropogenic climate change in formerly colonised spaces. It is thus through energy, and seeking to produce and consume energy, that we can identify the incipit of our current climate catastrophe and identify the extractive practices that allowed petroleum-based economies to take hold in our modern and contemporary world. Particularly, given the scope and focus of this article on Western Africa, Gabon, and the Atlantic, I wish to identify this starting point with the development of the Atlantic trade and slavery.⁷

The initial violence and extraction of abducted Black peoples from the African continent to be enslaved in the Americas is perpetuated in other

⁴ Fredric Jameson, *The Political Unconscious: Narrative as a Socially Symbolic Act* (London and New York: Routledge, 1989), 17, 20.

⁵ Patricia Yaeger, “Editor's Column: Literature in the Ages of Wood, Tallow, Coal, Whale Oil, Gasoline, Atomic Power, and Other Energy Sources”, *PMLA*, vol. 126, n° 2, 2011, 309.

⁶ Andreas Malm, *The Progress of This Storm: Nature and Society in a Warming World* (London: Verso, 2018), 14.

⁷ See also Kenneth Omeje (ed.), *Extractive Economies and Conflicts in the Global South: Multi-Regional Perspectives on Rentier Politics* (London and New York: Routledge, 2008).

contemporary forms of extraction, including that of oil like in the novel explored here. I base this understanding of extractivism following a number of scholars, but notably Macarena Gómez-Barris' definition of extractive capitalism, because, as a practice, it allowed for the development of our economic system. Gómez-Barris explains the term as follows: “[e]xtractive capitalism, then, violently reorganizes territories as well as continually perpetuates dramatic social and economic inequalities that delimit Indigenous sovereignty and national autonomy”.⁸ This territorial re-organisation is seen in transformation of land, bodies of water and people through the extraction of natural resources aimed to turn these into commodities—or commodity producing *bodies*—that enriched emerging European nation states and featured in the daily lives of their inhabitants:

As the Liverpool Maritime Museum says in its Transatlantic Slavery Gallery: ‘Much of the social life of Western Europe in the Eighteenth Century depended on the products of slave labour. In homes and coffee-houses, people met over coffee, chocolate, or tea, sweetened with Caribbean sugar. They wore clothes made from American cotton and smoked pipes filled with Virginian tobacco. They used furniture made from mahogany and other tropical woods.’ As Europeans became more and more attached to

these goods, they were sucked into the vortex of slavery and its human-consuming economy.⁹

Moreover, the Atlantic trade and slavery can be seen as extracting “bodies” from the African continent for enslaved labour, which often implied working on plantations, themselves an extractive and unsustainable type of agriculture given its monocrop model to maximise production and wealth. Additionally, this labour itself is an extraction process by which the strength of *objectified bodies* is drawn.¹⁰ Achille Mbembe notes that

[I]e monde de la traite des Nègres est la même chose que le monde de la chasse, de la capture, de la cueillette, de la vente et de l’achat. Il est le monde de l’extraction brute. Le capitalisme racial est l’équivalent d’une vaste nécropole. Il repose sur le trafic des morts et des ossements humains.¹¹

(The Atlantic Trade world is the same as the world of hunting, of capturing, of gathering, of selling and buying. It is the world of raw extraction. Racial capitalism is the equivalent of a vast necropolis. It rests upon the traffic of the dead and of human bones.)

⁸ Macarena Gómez-Barris, *The Extractive Zone: Social Ecologies and Decolonial Perspectives* (Durham: Duke University Press, 2017), xviii. See also Eduardo Gudynas, “Extracciones, extractivismos y extrahecciones. Un marco conceptual sobre la apropiación de recursos naturales”, *Observatorio del desarrollo*, n° 18, 2013, 1–18; James Petras, Henry Veltmeyer (eds.), *Extractive Imperialism in the Americas: Capitalism’s New Frontier* (Chicago: Haymarket Books, 2014); Matthew Henry, “Extractive Fictions and Postextraction Futurisms: Energy and Environmental Injustice in Appalachia”, *Environmental Humanities*, vol. 11, n° 2, 2019, 402–426; Martín Arboleda, *Planetary Mine: Territories of Extraction under Late Capitalism* (London: Verso, 2020); Alok Amatya and Ashley Dawson, “Literature in an Age of Extraction: An Introduction”, *MFS Modern Fiction Studies*, vol. 66, n° 1, 2020, 1–19 and Imre Szeman, Jennifer Wenzel, “Afterword: What Do We Talk about When We Talk about Extractivism?”, *Textual Practice*, 2021, 1–19.

⁹ Mimi Sheller, *Consuming the Caribbean: From Arawaks to Zombies* (London and New York: Routledge, 2003), 81–82.

¹⁰ Here I use the term “bodies” to emphasise the objectification of the enslaved subjects through slavery and colonialism, following WReC who notes: “especially if we bear in mind Wallerstein’s repeated emphasis (1996) that the production of capital entails ‘the commodification of everything’: ‘commodification’ is a never-ending rather than a once-and-for-all process; it ramifies both *extensively* – through the ceaseless development and conquering of new markets – and *intensively* – through the equally ceaseless quantification of quality” in WReC (Warwick Research Collective), *Combined and Uneven Development: Towards a New Theory of World-Literature* (Liverpool: Liverpool University Press, 2015), 18–19. See also Alexander Butchart, *The Anatomy of Power: European Constructions of the African Body* (London and New York: Zed Books, 1998).

¹¹ Achille Mbembe, *Critique de la raison Nègre* (Paris: Découverte, 2013), 200–201. All translations are mine unless specified otherwise.

7 This necrotic practice is grounded in a specific process of objectification, or *production*, of Black humanity by white humanity, through the trade of abducted and enslaved people in the aim of extracting this Black humanity as a natural resource to produce wealth. This racialised and racialising process is at the basis of our contemporary fossil fuel production and consumption, in the sense that these would not be possible without physically and ontologically violent racial and colonial practices. Mbembe explains this process as follows:

Le substantif « Nègre » est, ensuite, le nom que l'on donne au produit résultant du procès par lequel les gens d'origine africaine sont transformés en *minerai* vivant dont on extrait du *métal*. Telle est sa double dimension métamorphique et économique. Si sous l'esclavage l'Afrique est le lieu privilégié d'extraction de ce minerai, la plantation dans le Nouveau Monde, par contre, est le lieu de sa fonte, et l'Europe le lieu de sa conversion fiduciaire. Ce passage de *l'homme-minerai* à *l'homme-métal* et de *l'homme-métal* à *l'homme-monnaie* est une dimension structurante du premier capitalisme. L'extraction est d'abord arrachement ou séparation d'êtres humains singuliers des origines où ils tirent leur naissance. Elle est, ensuite, ablation ou extirpation—condition pour que le pressage (sans lequel il n'est point d'extraction aboutie) puisse effectivement avoir lieu. En faisant passer l'esclave par le laminoir et en le pressurant de manière à en extraire le maximum de profit, on ne convertit pas simplement un être humain en objet. On ne le marque pas seulement d'une empreinte indélébile. On produit le Nègre.¹²

(The term “Nègre” is, then, the name given to the product resulting from a process through which people of African origin are transformed into living *ore* from which one extracts *metal*. That is its double dimension; both alchemical and economic. If under slavery Africa is the preferred site for this extraction, the New World

plantation, instead, is the site of its casting, and Europe the site of its financial conversion. This passage from the *man-ore* to the *man-metal* and from the *man-metal* to the *man-money* is a structural element of nascent capitalism. Extraction is first the tearing or separation of individual human beings from the origins of their birth. It is then removal or extirpation—a condition needed for ore processing (without which there is no successful extraction). By putting the enslaved through the ore rolling mill and pressuring them in order to extract as much profit as possible, one does not simply convert a human being into an object. One does not only brand a human being with an indelible imprint. One produces the “Nègre”.)

8 Though the term “Nègre” in French may appear more ambiguous than its English cognates and translations – all of which are always racial slurs – this ambiguity does not mean the term is any less racist. Rather it is grounded in a specific tradition of Francophone thought which has attempted to wrest the term from its racist and racialising roots. This practice began in the 1920s with the “Négritude” movement. Aimé Césaire, Léon Gontran Damas and Léopold Sédar Senghor coined the concept of “Négritude” for the first time in 1934–35 in a journal they founded called *L'Étudiant noir*. Since then, the concept has evolved and continued to provoke debate. Césaire himself, in a paper delivered at a conference at the University of Miami in 1987, confesses his struggle with it.¹³ As it has been greatly discussed, the strength of “Négritude” lies in the radical act of adopting and desacralising racist and racialising terminology which perpetuated and reinforced (material) violence imposed on people of African descent and other indigenous groups by the dynamics of colonialism, slavery and imperialism. However, if we bear in mind Mbembe's description above as lying at the heart of our extractive capitalism, it is clear that our world cannot untangle itself from racism and racial exploitation, given that the structures of

¹² Mbembe, *Critique*, 67–68 (cf. note 12), italics in original.

¹³ Aimé Césaire, *Discours sur le colonialisme, suivi de discours sur la Négritude* (Paris: Présence Africaine, 2004).

our socio-economic system were built on this premise. It is at the core of our energy systems, the way we produce and consume energy, and particularly in sites and practices of extraction. This is identified by Malcom Ferdinand's definition of "Nérocène" in the important work *Une écologie décoloniale* (2019):

Ici le mot « Nègre » ne désigne plus une couleur de peau, un phénotype, ni une origine ethnique ou une géographie particulière. Il désigne tous ceux qui furent et sont dans la cale du monde moderne : les hors-monde. Ceux dont les survivances sociales sont frappées d'une exclusion du monde et qui se voient réduits à leur valeur « énergétique ». Le Nègre est blanc, le Nègre est Rouge, le Nègre est Jaune, le Nègre est Marron, le Nègre est Noir. Le Nègre est jeune, le Nègre est vieux, le Nègre est femme, le Nègre est homme. Le Nègre est pauvre, [...]. Le Nègre est marron-forêt, le Nègre est vert-plante, le Nègre est bleu-océan, le Nègre est rouge-terre, le Nègre est gris-baleine, le Nègre est noir-fossile.¹⁴

(Here the term "Nègre" does not designate a skin colour anymore, a phenotype, nor an ethnic origin, nor a particular geography. It identifies all of those who were and are in the hold of the modern world: the ones that are out of the world. Those whose social survival is struck by marginalisation and exclusion and that are reduced to their "energetic" value. The "Nègre" is white, the "Nègre" is Red, the "Nègre" Yellow, the "Nègre" is brown, the "Nègre" is black. The "Nègre" is young, the "Nègre" is old, the "Nègre" is woman, the "Nègre" is man. [...] The "Nègre" is wood-brown, the "Nègre" is plant-green, the "Nègre" is ocean-blue, the "Nègre" is soil-red, the "Nègre" is whale-grey, the "Nègre" is fossil-black.)

- 9 Ferdinand engages with the critical intersection between the decolonial and the environmental by identifying the transformation of "bodies" into "energy" through (neo-)imperialism and slavery,

¹⁴ Malcom Ferdinand, *Une écologie décoloniale: Penser l'écologie depuis le monde caribéen* (Paris: Seuil, 2019), 106.

as noted in this quote, which also raises issues in relation to gender, body and different physical abilities. The final lines identify extra-human-based extractive practices deeply tied to the ones that brought about slavery, plantation agricultural, coal and crude oil extraction. Thus, petroculture is a theoretical framework that allows us to connect a *longue durée* of extractive practices which culminate in our fossil-fuelled present, ones which have caused socio-ecological apocalypses from slavery and indigenous genocide to the destruction of human and extra-human kinship, and even to our current climate crisis. In this manner, petroculture is also petrohistory as we can identify these developments, which appear linear, according to our Enlightenment-inherited understanding of history, but that is actually cyclical and deeply sedimented in our world-system. Indeed, as Michel-Rolph Trouillot argues the "classification of all non-Westerners as fundamentally non-historical is tied also to the assumption that history requires a linear and cumulative sense of time that allows the observer to isolate the past as a distinct entity".¹⁵ If history, then, is what Christina Sharpe calls "a past that is not past",¹⁶ should not the manner in which history is written highlight the continued presence of this supposed "past"?

FROM MEMORY TO FICTION: NARRATING AND WRITING HISTORY

In 1978, Hayden White argued that "in general there has been a reluctance to consider historical narratives as what they most manifestly are—verbal fictions, the contents of which are as much invented as found and the forms of which have more in common with their counterparts in literature than they have with those in the sciences".¹⁷ My aim here is not to conflate his-

¹⁵ Michel-Rolph Trouillot, *Silencing the Past: Power and the Production of History* (Boston: Beacon Press, 2005), 7.

¹⁶ Christina Sharpe, *In the Wake: On Blackness and Being* (Durham: Duke University Press, 2016), 13.

¹⁷ Hayden White, *Tropics of Discourse: Essays in Cultural Criticism* (Baltimore: Johns Hopkins University Press, 1978), 42.

tory and literature. Rather I argue that literature has been, and still is, a repository of history and, more specifically, of colonial histories.¹⁸ Literature may be fictional and may not always provide facts as history strives to do. However, a collection of facts themselves is insufficient to paint a good picture of the past: historical recounting is always biased by the point of view, the school of thought, the language and culture, of the historian. The fact that colonial histories are passed on through literature, and sometimes *as* literature—often implicitly, as literature might not be seen as history—makes them more insidious because their problematic content is not challenged as it would be if they were truly considered historical documents. Therein lies the problem with the supposed harmlessness of fiction, since by pertaining to be fiction rather than fact it “deresponsibilises” itself.

- 11 Fiction—especially the narratives constituting the so-called “literary canon”, which can be more aptly described as a “colonial literary archive”—must be seen as a repository of the past, of colonial and oppressive histories and relationships which need to be challenged. Moreover, traditions of resistance against repressive regimes—sometimes also expressed through cultural productions—need to be recognised as such and placed in dialogue with the former to challenge them. Indeed, as Trouillot notes: “History is the fruit of power, but power itself is never so transparent that its analysis becomes superfluous. The ultimate mark of power may be its invisibility; the ultimate challenge, the exposition of its roots.”¹⁹ This also raises issues of memory and memorialisation as practices through which erasure of certain developments in history can be

recalled to the present. This is central, given how many argue that we currently live in a “post-colonial” world. Priya Satia identifies how memorialisation for colonialism and imperialism are so necessary, and though Satia’s work consider the British context, it can be globally extrapolated to any other colonial and imperial power that seeks to erase its past and present oppression:

Memorialization can help make the atrocities of empire common knowledge, for the sake of avoiding future repetitions and to ensure that Britons are aware of what their country owes the world, as such awareness can critically shape relationships among its citizens and between Britain and the world. We live in a postcolonial world in which the division between haves and have-nots extends divisions created in the era of European colonialism. Without a clear-eyed understanding of that colonial past, people around the world will continue to turn to myths of liberal empire and racial and cultural prejudices to understand their inequality. *We remain prisoners of those myths because the history of empire has not ended.*²⁰

This history has not ended, not only materially, 12 as mentioned above, but also epistemologically because the histories, and stories, we tell today erase and transform the episodes which gave birth to our contemporary world. And this is why historicism and history have been complicit with colonialism and imperialism, and why we continue to see traces of this complicity.²¹ As Satia notes: “Historians are storytellers, custodians of the past, repositories of collective memory, poetic interpreters of what it is to be human. Whether explaining our present or understanding the past on its own terms, their work critically shapes how the past infuses our

¹⁸ See for instance Nadine Gordimer who argued that “[i]f you want to read the facts of the retreat from Moscow in 1815, you may read a history book; if you want to know what war was like and how people of certain time and background dealt with it as their personal situation, you must read *War and Peace*” in Nadine Gordimer, *The Black Interpreters: Notes on African Writing* (Johannesburg: Spro-Cas/Ravan, 1973), 7. Though my argument here further challenges historical writing itself and the boundaries set between literature and “History”.

¹⁹ Trouillot, xxiii (cf. note 16).

²⁰ Priya Satia, *Time’s Monster: History, Conscience and Britain’s Empire* (London: Penguin Books, 2020), 282, my emphasis.

²¹ According to Satia “[w]e know about historicism’s complicity in the rise of modern imperialism, how it defined progress through the rhetorical exclusion of ‘others’ from that narrative, so that, as Dipesh Chakrabarty told us two decades ago, ‘historicism enabled European domination of the world in the nineteenth century’”, 3.

present”.²² Sandrine Bessora’s novel, as we will see in the next section, allows us to unlearn these colonially complicit narratives of history by both revising an aspect of Gabonese history, one connected to extractivism, and by identifying post-fossil-fuel living practices, thus proposing ways of seeing how we can shape our future differently. This is crucial when thinking about writing history in the context of Gabon, as much of what is available focuses on the colonial period. This is noted by Gabonese historian Gildas Nyame Mendendy Boussambe who, in *Histoire du Gabon. De ses origines à 1964 (History of Gabon. From its Origins to 1964)*—only recently published in 2019—creates an important space for Gabonese pre-colonial history. In the preface, Nyame Mendendy Boussambe notes the urgency of more historiographical material on the country because, in its absence, the main source otherwise remains work by another important Gabonese historian, Frédéric Meyo-Bibang who, in the 1990s, produced a manuscript that continues to be on the primary school syllabi in the country. Nyame Mendendy Boussambe informs the reader of a personal as well as a professional need to undertake this critical work in order to answer key questions the author has been exploring for years. In the description of this work, the author notes:

Le livre, intitulé *Histoire du Gabon. De ses origines à 1964*, part d’un constat simple : il n’existe quasiment pas d’écrits ou de manuels d’histoire sur le Gabon accessibles à chaque Gabonais ou à des personnes désireuses d’apprendre véritablement l’histoire de ce pays situé dans le bassin du Congo.²³

(The book, entitled *History of Gabon. From its origins to 1964*, develops from a simple observation: there is nearly no writing or manual on the history of Gabon available to each Gabonese or to anyone wishing to genuinely learn the history of this country situated in the Congo basin.)

This is vital, not only because of the cultural importance of writing one’s history and untangling it from those written during and reflective of colonial times, but also because, as Jeremy Rich argues, “Gabon is perhaps the most perfect example of neocolonialism on the entire [African] continent”.²⁴ While Rich’s work is now dated, having been written in 2007, the lack of historiographical material on and emanating from the country shows the extent to which this neo-colonialism is pervasive. I therefore propose that we consider Sandrine Bessora’s novel as providing an alternative, revised and memorialising history of Gabon. Given the length and scope of the novel, this is not an entire history of the country and its development, but rather a micro-history that takes petroleum and extractivism as focal points to untangle and explore the country’s energetic and colonial past and present.

BETWEEN MYTH & HISTORY: THE HISTORIOGRAPHY OF *PETROLEUM*

Sandrine Bessora studied economy and finance and eventually undertook a PhD in Paris in Anthropology entitled “Mémoires pétrolières au Gabon”/ “Oil memories in Gabon”. Thus, many of the historical descriptions in the novel, interspersed with the fictional narration, provide the reader with a background on the petro-history of Gabon. This focus on the historical, socio-ecological, political and economic impact of oil extractivism is crucial in its dialogue with mythical intertexts, specifically that of the Ancient Greek Medea myth and the Ekang or Fang beliefs in land and water deity and particularly that of Mami Wata. So, here I want to consider how the use of these myths engage with and assist a re-writing of petro-colonialism in Gabon in Bessora’s novel. First I will provide a brief summary of the plot: *Petroleum* follows a French white geologist called Médée who works on a ship, the “Ocean Liberator”, extracting oil off the coast of Gabon. She is in love and in a relationship with the crew’s cook, a Gabonese Black man named Jason. The novel explores the life

²² Ibid.,1.

²³ Gildas Nyame Mendendy Boussambe, *Histoire du Gabon. De ses origines à 1964* (Paris: L’Harmattan, 2019), 13.

²⁴ Jeremy Rich, *A Workman Is Worthy of His Meat: Food and Colonialism in the Gabon Estuary* (Lincoln: University of Nebraska Press, 2009), ix.

onboard the ship and where offshore extraction takes place until suddenly the ship explodes and a few of the characters die or disappear, including Jason. An investigation begins and Médée is one of the main suspects, having been temporarily back on land when the explosion occurred, as is Jason, given his ties to eco-activist groups and his disappearance—rather than death, since his corpse, or any part of it, has not been recovered, unlike other characters' remains. As the investigation unfolds, Médée refuses to believe Jason is dead and looks for him in the urban setting of Libreville, where the novel is now moored. Eventually, Médée is imprisoned because her love story with Jason comes to light and strengthens police suspicions on her involvement. Jason's aunt Louise, who is also his eco-activist and spiritual mentor, visits Médée in prison and gives her a drink which will supposedly help her sleep in her cell. The police find Médée's lifeless body and decide to simply pin the explosion on her and get rid of the body, repatriating an empty coffin to France. However, Louise and Jason find Médée, who was actually put in a death-like sleep rather than having been killed, allowing Médée and Jason to live happily ever after in the woods at the periphery of the city and away from petroleum companies.

- 15 The protagonists' names "Médée" and "Jason" permit the first identification of the novel's intertextual relation with mythology. Like any Graeco-Roman myth, Medea's story differs according to the source one reads, though the Ancient Greek playwright Euripides is often seen as cementing this character as the epitome of "otherness" as he made her a witch, a woman, a barbarian, and an infanticide in the eponymous play *Medea* (431 BC). In previous versions of the myth, Medea was not seen as responsible for her children's death, while in Euripides' version, Medea murders her children as a form of revenge against her husband Jason who has abandoned them to marry Corinth's King's daughter, Creusa. Bessora's novel is not the first to excavate and utilise this intertext, indeed, this novel can be seen as forming part of a tradition of writing which addresses the Medea myth, which Marie Carrière has described as a "Medea Renaissance" in her work *Médée*

Protéiforme (2012), and these are often feminist and post-colonial re-writings.²⁵ In this article, I focus mostly on the Euripidean intertext rather than other sources, such as Seneca or Golden Fleece narratives starting from Apollonius of Rhodes's *Argonautica*. This due to the article's focus and scope, but also because of the racial and heroic inversion between Medea and Jason's characters in Bessora's novel, which re-centres Medea in the narrative—though connections between the Golden Fleece and petroleum as "black gold" could easily be drawn, which the novel itself mentions once: "Le pétrole est la toison d'or et Elf est son gardien"²⁶ ("Petroleum is the Golden Fleece and Elf its keeper"). Additionally, I see Bessora's novel as rewriting the Medea myth by excavating submerged histories of colonisation and (neo-)imperialism, especially because of the identification of Médée's character with Mami-Wata and the setting of the novel. Indeed, past violent practices of enslavement and uneven relations persist in Bessora's novel, in which oil is extracted from the seabed within the Gabonese Exclusive Economic Zone to benefit France, other European countries owning the fictional oil company, and a small elite of Gabonese people. Thus, there is a lack of resource redistribution which reproduces colonial and imperial practices wherein European countries—or spaces that were to become some of the current countries in the European continent—extracted wealth from their former colonies. Additionally, according to Alexandra Perisic, the ship used to transport abducted peoples from the African continent to the Americas has, in the novel, been replaced by the oil ship: "The ship still operates as a metaphor of the world: it contains all the race, class, national, and gender divisions while at the same time being positioned outside of a national territory. It is, additionally, a metaphor of the world as a workplace".²⁷

²⁵ Marie Carrière, *Médée Protéiforme* (Ottawa: Les Presses de l'Université d'Ottawa, 2012), 14.

²⁶ Bessora, *Pétroleum* (Paris: Denoël, 2004), 245.

²⁷ Alexandra Perisic, "Life after Oil: The Politics of Labor in Bessora's *Pétroleum*", *Cambridge Journal of Postcolonial Literary Inquiry*, vol. 5, n° 3, 2018, 410. Additionally, it could be argued that *Pétroleum* in the francophone literary corpus follows in the footsteps of

16 This identification between the Atlantic trade and the petro-extractivism—in addition to continued imagery throughout the novel of a feminised land (both on- and offshore) against which different violent acts are perpetuated—also engages with an erased history of colonial rape. Many histories and narratives of enslavement remind their readers of the many physical abuses lived by abducted peoples, and the rape of women is continually present, whether on the ship or the plantation. Throughout Bessora's novel, the initial rape, which often took place onboard the ship transporting abducted and enslaved people, is superimposed onto the action of extracting oil. Repeatedly, drilling for oil is compared to a violent sexual encounter, violating the earth compared to a woman. This is often supplemented by a consideration of Gabonese workers' conditions: "D'abord, les muscles indigènes ont téléguidé un énorme tube creux du plancher de forage à la croûte continentale. Il y a eu pénétration. Elle était vierge"²⁸ ("First the indigenous muscles guided an enormous hollow tube from the drilling floor to the continental crust. There was penetration. She was a virgin"). The reduction of indigenous labourer characters to their physical strength ("les muscles indigènes") hints at the parallel between the transatlantic ship and the oil ship, and the objectification of Black Humanity identified by Mbembe and Ferdinand mentioned above. Moreover, in the novel, when oil is extracted by the "*Ocean Liberator*" ship and its international team of workers and engineers, it is continually compared to childbirth, strengthening the idea of feminisation of the land: "le petit arrive. Il est tout près... Hourra. [...] Pas d'éruption en vue. Naissance sans violence. Naissance sans douleur. Quelques larmes d'émotion pour accueillir le dernier-né d'Elf-Gabon"²⁹ ("The little one is coming. He's so close...

Yay. [...] No eruptions within sight. A birth without violence. A birth without pain. A few emotional tears are shed to welcome Elf-Gabon's newborn").

Moreover, the name of the oil ship "*Ocean Liberator*" echoes the neo-imperial rhetoric of "liberating" natural resources through extractive practices, emphasised in the first line of the novel in which the company's "prophecy" is the mission the ship's workers need to fulfil: "Après un long périple, l'Or noir rencontrera la faille. Son voyage s'achèvera par trois mille mètres de fond. Le Libérateur le délivrera des entrailles de la terre" ("After a long and difficult journey, black gold will meet the rift. Its journey will end three thousand meters deep. The Liberator will deliver it from the earth's entrails").³⁰ And in the description of Médée extracting petrol from the ground: "Médée a libéré Bitume de la Terre qui le gardait prisonnier" (Médée has freed Bitumen from the Earth that kept him imprisoned),³¹ and in the general statement that "La Terre fut la prison de Bitume" ("The Earth was Bitumen's prison").³²

Hence, the initial "rape" is continued in the present for many former colonies through neo-liberal and neo-imperial resource exploitation.³³ Moreover, the idea of extraction leaving a physical trace is present through description of a scarred seabed: "... mer limpide. Transparente, elle ne cache rien de sa nudité et montre ses blessures : le fond sableux des eaux laisse parfois apparaître de larges cicatrices sombres, dépressions subites, gouffres noirs creusés par des machines suceuses de sable"³⁴ ("... clear sea. Transparent, she hides nothing of her nudity and shows her wounds: the sandy floor under the water shows at times dark large scars, sudden depressions, black chasms dug by sand-sucking machines").

Patrick Chamoiseau's novel *Texaco* (1992). The novel, set in Martinique, also explores the continued impact of colonial extractivism on the island from unsustainable monocrop sugar plantation to oil extraction.

²⁸ Bessora, 11 (cf. note 27). Additional instances of this comparison, including childbirth imagery, can be found at 7, 20, 23, 24, 27, 29, 35, 50, 55, 68, 70-71, 73, 75, 85, and 280.

²⁹ *Ibid.*, 29.

³⁰ *Ibid.*, 7.

³¹ *Ibid.*, 80.

³² *Ibid.*, 218.

³³ It would be worth to note here the etymological origin of the word "rape" from Latin is the verb *rapere* meaning to snatch off, carry off/away and thus has connections to ideas of theft.

³⁴ *Ibid.*, 115-116.

19 The feminisation of the land has been a practice investigated by many scholars, from Carolyn Merchant's *The Death of Nature: Women, Ecology and the Scientific Revolution* (1980) to the many chapters of the *Routledge Handbook of Ecofeminism and Literature* (2022) edited by Douglas A. Vakosh. It is a rhetoric with a deeply colonial origin; "explored" and "conquered" lands in the Early Modern period were often depicted as women, a tradition that Renaissance practices recovered from Classical times.³⁵ Notably, Europe and Asia are named after female characters from Greek mythology, emphasising the importance of Classical sources in the articulation and conception of new continents. Early Modern Europeans were encountering in their supposed "exploration" of the world. Other images from classical sources, especially those of monstrous "others", play similar roles, as does the figure of Medea. Thus, the perpetuation of this feminisation not only is grounded in a violent colonial history of exploitation and disenfranchisement, but also in petrocultural texts, as Cara Daggett notes: "the aesthetics of fossil fuels—most particularly oil—are ripe for recoding as expressions of sexualised power and orgasmic satisfaction. The parallels between rape and extractivism have been well documented".³⁶ Thus, in Bessora's novel the continual and ironic depiction of the rape of the land for oil extraction can be read as a commentary and means of registering the socio-ecological violence of petro-extractivism, one written within a history of colonial extraction in the country, beginning from the Atlantic trade, as noted via the Mbembe quote above, to the lumber extraction which preceded oil extraction

in Gabon. Additionally, Daggett informs us that "[a]nalyzing petro-masculinity alerts us to those perilous moments when challenges to fossil-fuelled systems, and more broadly to fossil-soaked lifestyles, become interpreted as challenges to white patriarchal rule".³⁷

This is crucial in the use of the Medea and the Mami Wata figures, in rewriting a specific history of Gabon, as both challenge white heteropatriarchal rule. Mami Wata is a fluid and multifaceted divinity, going by several names, and which can be found throughout what Antonio Benítez Rojo calls "la cultura afroatlántica" (developed from John Thornton's coinage of the word).³⁸ A merging of the European mermaid with African and Amerindian beliefs, "Mami Wata"—"(pidgin English for "Mother Water" or Mistress Water," sometimes rendered as "Mammy Water")" or even Man/Manman dlo in French creole—"epitomizes and embodies hybridity. She is a transcendent, transformative, transcultural, transnational, transgendered, and trans-Atlantic being. She straddles both land and water, culture and nature (being half-human, half-fish)".³⁹ Despite its hybridity, it is important to note that the use of this figure does not aim to merely celebrate creolisation, which might risk erasing the violence and brutality of colonisation and imperialism behind it.⁴⁰

³⁵ "In 1507, Martin Waldseemüller in his *Cosmographiae Introductio* proposed the name "America" for Columbus's newly discovered land on the explicit grounds that "I do not see why anyone should object to its being called after Americus the discoverer, a man of natural wisdom, Land of Americus or America, since both Europe and Asia have derived their names from women" in Lisa Hopkins, "Marlowe's Asia and the Feminization of Conquest", in Debra Johanyak and Walter S. H. Lim (eds.), *The English Renaissance, Orientalism, and the Idea of Asia* (New York: Palgrave Macmillan, 2010), 115.

³⁶ Cara Daggett, "Petro-masculinity: Fossil Fuels and Authoritarian Desire", *Millennium: Journal of International Studies*, vol. 47, n° 1, 2018, 39.

³⁷ *Ibid.*, 29.

³⁸ Antonio Benítez Rojo, *Archivo de los pueblos del mar* (San Juan: Ediciones Callejón, 2010), 113.

³⁹ Henry John Drewal, Charles Gore, Michelle Kisliuk, "Siren Serenades: Music for Mami Wata and Other Water Spirits in Africa", in Linda Austern and Inna Naroditskaya (eds.), *Music of the Sirens* (Bloomington: Indiana University Press, 2006), 294 and 295. In Hispanic and Lusophone cultures of the Americas she may also be called Yemayá and Iemanjá/Yemanjá.

⁴⁰ See more in Henry John Drewal, "Beauteous Beast: The Water Deity Mami Wata in Africa", in Asa Simon Mittman and Peter J. Dendle (eds.), *The Ashgate Research Companion to Monsters and the Monstrous* (London and New York: Routledge, 2013), 77–101; Persephone Braham, "Song of the Sirenas: Mermaids in Latin America and the Caribbean", in Philip Hayward (ed.) *Scaled for Success: The Internationalisation of the Mermaid* (Bloomington: Indiana University Press, 2018), 149–170; and in Giulia Champion, "Decolonising Deep-Sea Gothic: Perspectives from the Americas", *Gothic Studies*, vol. 24, n° 3, 2022, 275–294.

21 This paper's emphasis on the Mami Wata figure intends to show how she subverts socially constructed boundaries which are vestiges of colonial practices and epistemes. This is shown in the novel through the character of Louise, Jason's aunt, and her role as a priest to the deity, as well as in Jason's choice to work against Elf-Gabon for the deity. Louise represents these spirits and through her they tell the story of the first extraction of Gabon: timber logging. Indeed, in a flashback section of the novel this history is told by identifying the arrival of the first geologists in 1928 and how this shows a transition from timber to crude oil extraction.⁴¹ The novel connects these colonial scientists to Médée via their profession, but unlike Médée, these geologists do not unlearn the western episteme in which their science is grounded. Though they use a guide, Zéphryn, to take them through the woodlands, they do not abide by the traditional practices the guide identifies as the correct way to engage with extra-human nature; practices grounded in custodianship: "Il sait bien qu'il dérange les esprits de la forêt et les génies des eaux. Il sait bien qu'il faudrait demander l'autorisation aux arbres et aux poissons. Leur dire s'il vous plaît. Merci. Bonjour. Au revoir"⁴² ("He knows full well that he was disturbing the spirits of the forest and the water genies. He knows full well that he should have asked for authorisation to the trees and the fish. Tell them 'please'. 'Thank you'. 'Good morning'. 'Goodbye'"). Thus, the guide becomes afraid of the woods as he fails to properly ask for permission to extra-human nature for trespassing: "Alors il craint les représailles de la forêt. Néanmoins, il guide les explorateurs. Parce que le pétrole, ça paie bien. Ça paie mieux que le bois. Ça tue, mais ça paie"⁴³ ("He is then scared of the forest's revenge. Nonetheless, he guides the explorers. Because petroleum pays well. It pays better than timber. It kills but it pays"). Zéphryn's identification of the geologists as explorers highlights the colonial genealogy present in the different extractive practices of Gabon from colonisation

to lumber and to crude oil extraction. His concluding words on the reality of petroleum as something that kills denotes not only the violence that accompanies petro-economies, but also the necrotic realities of colonialism as noted in the Mbembe quote above. This is opposed to the spirits Zéphryn mentions, identifying their roles as stewards of the land and waters.

22 Similarly, the Medea figure challenges similar assumptions because of its intertextual presence and the mapping of the intertext on the novel's characters, as mentioned above; Médée is a French geologist and Jason a Gabonese cook working on the oil ship. This inverts the racial and power dynamic of the Euripidean intertext: Medea the dark-skinned barbarian becomes Médée in *Petroleum*, a French geologist from Normandy, and Jason the Hellenic white man becomes the Gabonese cook on the oil ship.⁴⁴ Moreover, Médée herself temporarily dies when Louise poisons her into a death-like sleep to free her from prison, incarcerated after having been wrongly accused of causing the explosion on the oil ship. For Médée to be free and with Jason, she must be officially dead, just as the Medea myth presented by Euripides must be deconstructed.⁴⁵ Moreover, the character of Médée herself is compared to Mami Wata by Jason: "- Je ne connais qu'un homme-poisson et c'est une sirène. Elle s'appelle Mamiwata. Son ventre est froid. [Le] regard [de Jason] se durcit et il ajoute d'un ton sec: - Elle te ressemble"⁴⁶ ("- I only know one merman and it's a mermaid. Her name is Mamiwata. Her belly is cold. [Jason's] gaze hardens, and he adds: - She is like you"). Médée's cold stomach here is likewise a cold womb: crude oil is her and Elf-Gabon's child extracted from the surrogate womb of the earth. The infanticide is displaced onto the Elf-Gabon company, since oil is the child in the novel to which, as noted above, Médée helps give birth. This refers back to the role of midwife often attributed to the character of Medea in many texts. Thus Médée may be connected to

⁴¹ Bessora, 60 (cf. note 27).

⁴² *Ibid.*, 61.

⁴³ *Ibid.*, 63.

⁴⁴ See *Ibid.*, 14–17.

⁴⁵ *Ibid.*, 319–320.

⁴⁶ *Ibid.*, 54.

motherhood or the possibility of childbirth, but not be enclosed in that role. By undoing the cultural connection between the Medea myth and motherhood, but also Mami Wata and motherhood, the novel proposes to reconsider femininity not only as a potential for motherhood, but as an individual identity on its own. While Mami Wata will always be a mothering figure attached to bodies of water, it is also a mermaid-like character that travels and moves freely in water and on land, unmoored.

- 23 For this reason, Bessora's novel brings full-circle this subversion of the (re)productive system through its focus on the Elf-Gabon company as the target of the murder. It also subverts the mythic intertext in which the character of Medea facilitates Jason's heroic quest by making her the main agent of the quest in the novel.⁴⁷ Additionally, as Alexandra Perisic has argued, the use of the detective novel form specifically permits the novelist to unearth and bring to light these uneven and exploitative dynamics of petro-imperialism:

In *Petroleum*, the target of the crime is no longer a person, but an entity: the Elf-Gabon company. Etienne, the sole human victim of the crime, is also one of the primary suspects. I concur with Close's assessment that detective fiction arises as an appropriate form to address the rise in violence in the age of neoliberalism, the new political emphasis on terrorism, and an increasing insistence on the importance of national and personal security. I would add that in conjunction to reflecting the rising social inequalities in the world metropolises, detective fiction stages the dialectic between the known and the unknown that is reflective of the contemporary modes of power and marginalization.⁴⁸

⁴⁷ "Par contre, dans *Petroleum*, c'est la femme, le héros de la quête. Autrement dit, c'est Médée, et non l'Argonaute aux multiples périples, qui détient la « puissance d'agir » dans ce texte. [...] À noter, tout le long du roman, il figure comme l'objet passif du désir féminin et des rêves de Médée" in Carrière, 153 (cf. note 26).

⁴⁸ Perisic, 419 (cf. note 28).

Along these same lines, I argue that the novel 24 undertakes a type of detective work in excavating submerged, un- and mis-told histories, especially through "clearing" Medea's name. Thus, Bessora's novel interweaves the Medea and Mami Wata intertexts and, in one parallel motion, exonerates the Medea figure while aligning the Mami Wata figure to a similar "canonical" level. Indeed, as the extensive scholarship on the Medea myth and figure shows, it has become a crucial and central figure in European intellectual and aesthetic work, including that written in Francophone languages. However, due to its emergence in Graeco-Roman sources, this myth has been given precedence, culturally speaking, over non-western narratives. This is due *first*, to the fact that colonial practices developed further during the Renaissance, a time which re-birthed "Classical sources" and put them above all other forms of knowledge. This was a central time for what was to become "Europe" as David Graeber and David Wengrow argue that in

the Middle Ages, most people in other parts of the world who actually knew anything about northern Europe at all considered it an obscure and uninviting backwater full of religious fanatics who, aside from occasional attacks on their neighbours ("the Crusades"), were largely irrelevant to global trade and world politics. [...] All this changed, of course, in the late fifteenth century, when Portuguese fleets began rounding Africa and bursting into the Indian Ocean – and especially with the Spanish conquest of the Americas.⁴⁹

And *second*, also because the history of these 25 developments has been told and repeated, as I discussed above, in a problematically unilateral way—especially in western historiography—and one that has erased other voices, as Graeber and Wengrow have also noted about the history they discuss in the quote above:

⁴⁹ David Graeber, David Wengrow, *The Dawn of Everything: A New History of Humanity* (London: Penguin Books, 2022), 29.

Of course, this isn't usually the way historians of ideas tell this story. [...] As a result, even in cases where Enlightenment thinkers openly insisted they were getting their ideas from foreign sources [...], there was a tendency for contemporary historians to insist they weren't really serious; or else that when they said they were embracing Chinese, or Persian, or indigenous American ideas these weren't really Chinese, Persian or indigenous American ideas at all but ones they themselves had made up and merely attributed to exotic Others.⁵⁰

26 Thus, this constant erasure and mis-/re-attribution of ideas and ways of thinking have constantly marginalised non-white and non-European peoples. This epistemological violence of colonial practices is repeated every time a narrative omits the importance of multi-cultural sources in its creation; Euripides' text created the Medea figure in a certain way, which was repeated across time, but Bessora's novel—as other resistance stories—has undone and decolonised it through its connection with Mami Wata. This means that the novel brings back to the forefront non-European and non-Graeco-Roman narratives and figures hence pushing the unlearning further; Medea is only one part of this history.

CONCLUSION

27 In Bessora's novel, we glimpse an ever-expanding socio-historical horizon, identifying how a world-systemic history connects colonial pasts with extractive presents. This genealogy is identified in Bessora's novel through a neologism correlating petrol extraction to colonisation and imperialism. This is done in the quote below through the narrator's listing of historical French figures who participated in the colonisation and exploitation of Gabon, via their roles as geologists, colonial administrators and politicians: "Serval, le gouverneur Chavannes, le géologue Roger Butin, le géologue Victor Hourcq, pionniers admirables de la colonisation puis de la

pétrolisation"⁵¹ ("Serval, governor Chavannes, geologist Roger Butin, geologist Victor Hourcq, admirable pioneers of colonisation, and then, of petrolisation"). The creation of this noun rhyming with colonisation in this sentence further identifies the entanglements between colonial practices and petroleum extraction and trade.

The novel also shows the power wrapped in the acts of resistance and non-conformity of the Medea and Mami Wata figures, as Sylvère Mbondobari argues concerning Medea: 28

Dans *Pétroleum*, la quête de l'Or noir donne lieu à différents types de violence: violence contre la nature, violence contre les populations autochtones, violence politique, violence coloniale et violence postcoloniale. Mais contrairement, au mythe originel qui met l'accent sur la violence de la figure féminine, Bessora fait de Médée une femme autonome et subversive, qui refuse la soumission à la hiérarchie d'Elf-Gabon et aux règles politiques et sociales dictées par la logique coloniale.⁵²

(In *Pétroleum*, the quest for black gold produces different types of violence: violence against nature, violence against indigenous population, political violence, colonial violence and postcolonial violence. However, contrary to the original myth, which emphasises the violence of the feminine figure, Bessora portrays Médée as an autonomous and subversive woman, who refuses to submit to Elf-Gabon's hierarchy and to political and social rules dictated by the colonial logic.)

This can also be seen metatextually in Médée's temporary dead state after she is poisoned by Louise in order to be freed from prison. This literal renaissance of the Medea figure through the character of Médée undoes its colonial and 29

⁵¹ Bessora, 90 (cf. note 27).

⁵² Sylvère Mbondobari, "Prose postcoloniale et enjeux mémoriels: Discours, mythes, et mémoire coloniale dans 53 cm et *Pétroleum* de Sandrine Bessora", in Anthony Mangeon (ed.), *Postures postcoloniales: Domaines africains et antillais* (Paris and Montpellier: Éditions Karthala, 2012), 119.

classical intertextual inheritance and further connects the figure to that of Mami Wata, given that Louise is a priestess to the deity in the novel.

30

Additionally, the binary between life and death is destabilised through a revision of indigenous epistemologies which provide a counter-context in which ancestors and loved ones who have passed away remain close to the characters in the novel. This is also noted by Étienne-Marie Lassie:

En plus de postuler l'existence des génies, entités surnaturelles maléfiques ou bienfaitantes suivant les circonstances et maîtresses absolues de l'élément naturel qu'elles habitent, ce qui tient lieu de culture locale dans *Petroleum* conçoit aussi la mort comme un passage de l'état d'être de chair à celui d'esprit. Ces esprits élisent domicile dans la nature et « vivent » en communion avec les vivants de la communauté dont ils influencent l'existence positivement ou négativement.⁵³

(In addition to postulate for the existence of genies, malicious or good supernatural entities, depending on the context and as absolute master of the natural element they inhabit, in

Petroleum, local culture is also seen to conceive of death as a passage between the physical living state and that of living spirit. These spirits choose to live in nature and 'live' in harmony with the living community whose existence they influence positively or negatively.)

Moreover, the focus on oil in the novel is crucial for deconstructing life and death as a dichotomy, because petrol is seen in the novel as bringing back to life dead matter (considering that it is made out of fossilised life): “Né de la vie morte, le pétrole, c'est vous: un déchet organique. Oui, madame, le pétrole est ce qu'il reste des êtres vivants après pourrissement. C'est qu'il restera de vous après votre décomposition”⁵⁴ (“Born of dead life, petrol is you: an organic refuse. Yes, Madam, petrol is what remains of living beings after they rot. It is what will remain of you after you decompose”).⁵⁵ Petrol takes on this zombified presence that connects humans and our “developed civilisation” to apocalyptic petrofutures, where loss appears to be the only result of our society's inability to divest from fossil fuels. A loss that also shows how petroleum extraction and production conceptually appear as a legacy, emphasised by the repeated images of birth the novel contains.

31

⁵³ Étienne-Marie Lassie, “La nature ré-enchantée de Bessora: La pétro-critique par les mythes dans *Petroleum*”, in Étienne-Marie Lassie (ed.), *Aspects écologiques de l'imaginaire Africain* (Cameroon: Langaa RPCIG, 2013) 181.

⁵⁴ Bessora, 174 (cf. note 27).

⁵⁵ This quote echoes Italo Calvino's short story “The Petrol Pump”, a classic of petroculture and one of the first text to fictionalise our embodied connection to petroleum and fossilisation, see Italo Calvino, “La pompa di benzina”, in Italo Calvino, *Prima che tu dica “Pronto”* (Milano: Mondadori, 1993), 194–201.

Bibliography

Amatya Alok, Dawson Ashley

“Literature in an Age of Extraction: An Introduction”, *MFS Modern Fiction Studies*, vol. 66, n° 1, 2020, 1–19.

Arboleda Martín

Planetary Mine: Territories of Extraction under Late Capitalism (London: Verso, 2020).

Barrett Ross, Worden Daniel

Oil Culture (Minneapolis: University of Minnesota Press, 2014).

Benítez Rojo Antonio

Archivo de los pueblos del mar (San Juan: Ediciones Callejón, 2010).

Bessora Sandrine

Petroleum (Paris: Denoël, 2004).

Braham Persephone

“Song of the Sirenas: Mermaids in Latin America and the Caribbean”, in Philip Hayward (ed.), *Scaled for Success: The Internationalisation of the Mermaid* (Bloomington: Indiana University Press, 2018), 149–170.

Butchart Alexander

The Anatomy of Power: European Constructions of the African Body (London and New York: Zed Books, 1998).

Calvino Italo

“La pompa di benzina” in Italo Calvino, *Prima che tu dica ‘pronto’* (Milano: Mondadori, 1993), 194–201.

Carrière Marie

Médée Protéiforme (Ottawa: Les Presses de l’Université d’Ottawa, 2012).

Césaire Aimé

Discours sur le colonialisme, suivi de discours sur la Négritude (Paris: Présence Africaine, 2004).

Champion Giulia

“Literary Cannibalism in the Extractiono(s)cene” (Ph.D diss., University of Warwick, Coventry, 2020).

“Decolonising Deep-Sea Gothic: Perspectives from the Americas”, *Gothic Studies*, vol. 24, n° 3, 2022, 275–294.

Drewal Henry John

“Beauteous Beast: The Water Deity Mami Wata in Africa”, in Asa Simon Mittman and Peter J. Dendle (eds.), *The Ashgate Research Companion to Monsters and the Monstrous* (London and New York: Routledge, 2013), 77–101.

Drewal Henry John, Gore Charles, Kisluik Michelle

“Siren Serenades: Music for Mami Wata and Other Water Spirits in Africa”, in Linda Austern and Inna Naroditskaya (eds.), *Music of the Sirens* (Bloomington: Indiana University Press, 2006), 294–316.

Ferdinand Malcom

Une écologie décoloniale: Penser l’écologie depuis le monde caribéen (Paris: Seuil, 2019).

Graeber David, Wengrow David

The Dawn of Everything: A New History of Humanity (London: Penguin Books, 2022).

Gómez-Barris Macarena

The Extractive Zone: Social Ecologies and Decolonial Perspectives (Durham: Duke University Press, 2017).

Gordimer Nadine

The Black Interpreters: Notes on African Writing (Johannesburg: Spro-Cas/Ravan, 1973).

Gudynas Eduardo

“Extracciones, extractivismos y extrahecciones. Un marco conceptual sobre la apropiación de recursos naturales”, *Observatorio del desarrollo*, n° 18, 2013, 1–18.

Hein Carola (ed.)

Oil Spaces: Exploring the Global Petroleumscape (London and New York: Routledge, 2022).

Henry Matthew S.

“Extractive Fictions and Postextraction Futurisms: Energy and Environmental Injustice in Appalachia”, *Environmental Humanities*, vol. 11, n° 2, 2019, 402–426.

Hopkins Lisa

“Marlowe’s Asia and the Feminization of Conquest”, in Debra Johanyak and Walter S. H. Lim (eds.), *The English Renaissance, Orientalism, and the Idea of Asia* (New York: Palgrave Macmillan, 2010), 115–130.

Jameson Fredric

The Political Unconscious: Narrative as a Socially Symbolic Act (London and New York: Routledge, 1989).

Lassi Étienne-Marie

“La nature ré-enchantée de Bessora: La pétro-critique par les mythes dans *Petroleum*”, in Étienne-Marie Lassi (ed.), *Aspects écocritiques de l’imaginaire Africain* (Cameroon: Langaa RPCIG, 2013), 169–186.

LeMenager Stephanie

Living Oil: Petroleum Culture in the American Century (Oxford: Oxford University Press, 2014).

Liboiron Max

Pollution Is Colonialism (Durham: Duke University Press, 2021). Macdonald Graeme, “Oil and World Literature”, *American Book Review*, vol. 33, n° 3, 2017, 7–31.

Malm Andreas

The Progress of This Storm: Nature and Society in a Warming World (London: Verso, 2018).

Mbembe Achille

Critique de la raison nègre (Paris: Découverte, 2013).

Mbondobari Sylvère

“Prose postcoloniale et enjeux mémoriels: Discours, mythes, et mémoire coloniale dans *53 Cm et Petroleum* de Sandrine Bessora”, in Anthony Mangeon (ed.), *Postures Postcoloniales: Domaines Africains et Antillais* (Paris and Montpellier: Éditions Karthala, 2012), 95–128.

Nyame Mendendy Boussambe Gildas

Histoire du Gabon. De ses origines à 1964 (Paris: L'Harmattan, 2019).

Omeje Kenneth (ed.)

Extractive Economies and Conflicts in the Global South: Multi-Regional Perspectives on Rentier Politics (London and New York: Routledge, 2008).

Orpana Simon

Gasoline Dreams: Waking up from Petroculture (New York: Fordham University Press, 2021).

Perisic Alexandra

“Life after Oil: The Politics of Labor in Bessora's *Petroleum*”, *Cambridge Journal of Postcolonial Literary Inquiry*, vol. 5, n° 3, 2018, 406–422.

Petras James, Veltmeyer Henry (eds.)

Extractive Imperialism in the Americas: Capitalism's New Frontier (Chicago: Haymarket Books, 2014).

Rich Jeremy

A Workman Is Worthy of His Meat: Food and Colonialism in the Gabon Estuary (Lincoln: University of Nebraska Press, 2009).

Riddle Amy

“Petrofiction and Political Economy in the Age of Late Fossil Capital”, *Mediations*, vol. 31, n°2, 2018, 55–74.

Said Edward W.

Culture and Imperialism (New York: Vintage, 1994).

Satia Priya

Time's Monster: History, Conscience and Britain's Empire (London: Penguin Books, 2020).

Shah Sonia

Crude: The Story of Oil (New York, Toronto and London: Seven Stories Press, 2004).

Sharpe Christina

In the Wake: On Blackness and Being (Durham: Duke University Press, 2016).

Sheller Mimi

Consuming the Caribbean: From Arawaks to Zombies (London and New York: Routledge, 2003).

Szeman Imre

“Conjectures on World Energy Literature: Or, What Is Petroculture?”, *Journal of Postcolonial Writing*, vol. 53, n° 3, 2017, 277–288.

“How to Know about Oil: Energy Epistemologies and Political Futures”, *Journal of Canadian Studies/Revue d'études Canadiennes*, vol. 47, n°3, 2013, 145–168.

Szeman Imre

“Introduction to Focus: Petrofictions”, *American Book Review*, vol. 33, n° 3, 2012, 3–3.

Szeman Imre, Wenzel Jennifer

“Afterword: What Do We Talk about When We Talk about Extractivism?”, *Textual Practice* vol. 35, n°3, 2021, 505–523.

Trouillot Michel-Rolph

Silencing the Past: Power and the Production of History (Boston: Beacon Press, 2015).

Wenzel Jennifer

“How to Read for Oil”, *Resilience: A Journal of the Environmental Humanities*, vol. 1, n° 3, 2014, 156–161.

White Hayden

Tropics of Discourse: Essays in Cultural Criticism (Baltimore: Johns Hopkins University Press, 1978).

Wilson Sheena, Carlson Adam, Szeman Imre

Petrocultures: Oil, Politics, Culture (Montreal: McGill-Queen's University Press, 2017).

WReC (Warwick Research Collective)

Combined and Uneven Development: Towards a New Theory of World-Literature (Liverpool: Liverpool University Press, 2015).

Yaeger Patricia

“Editor's Column: Literature in the Ages of Wood, Tallow, Coal, Whale Oil, Gasoline, Atomic Power, and Other Energy Sources”, *PMLA*, vol. 126, n° 2, 2011, 305–326.

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“Blue-Eyed Arabs” & the Silver Snake: Alaskan petrocultures and the Trans-Alaska pipeline system

Abstract

Following fierce construction controversies in the late 1960s and the early 1970s, the Trans-Alaska Pipeline System became a familiar cultural hallmark and the most iconic pipeline in the world. This article argues that the realization of the Trans-Alaska Pipeline System changed Alaska’s culture and global imaginaries of Alaska. TAPS forged overlapping and evolving petrocultures; rather than a uniform and static oil culture, the pipeline’s social valence ebbed and flowed with the passage of time and the transit of Arctic oil from Prudhoe Bay through Prince William Sound. The pipeline became a gauge not only for the State’s revenues, but also for the economic and cultural consciousness of its people. Yet there was always a subset of Alaskans who warned of the deleterious effects of the pipeline on Alaska’s environment, polity, culture and ancestral lifeways.

Plan of the article

- “Maelstrom of Change” (1968-1973)
- “A New Social Order” (1974-1985)
- Double Bust (1986-1999)
- Arctic Ambivalence (2000-2020)



Figure 1: The Trans-Alaska Pipeline snakes across the tundra, just south of the Arctic Circle, March 2019. Source: Philip Wight.

- 1 In late 1991, U.S. President George H.W. Bush uttered perhaps the strangest statement in history concerning a hydrocarbon pipeline: “The Caribou love it. They rub up against it, and they have babies.”¹ Bush was referring to the famous Trans-Alaska Pipeline System (TAPS), in the context of the fiery debate over drilling in the Arctic National Wildlife Refuge (ANWR) in northeastern Alaska. At a December 1991 fundraiser dinner for U.S. Senator Frank Murkowski (R-AK), Bush elaborated on TAPS, Caribou and drilling in ANWR: “the critics said years ago when the debate was on the pipeline up there, the Alaska pipeline, that caribou would be extinct because of this. Well, there’s so many caribou they’re rubbing up against the pipeline, they’re breeding like mad.”²
- 2 American citizens likely found Bush’s reference of the Trans-Alaska Pipeline System—even in its most bizarre aphrodisiac reference— a familiar cultural symbol. The pipeline provided the indispensable energy infrastructure to transport oil from the Prudhoe Bay field—the single largest conventional oil reservoir ever discovered on the North American continent—to the world’s most voracious energy consumers in the “lower

48” United States. Following the fierce controversy surrounding its construction and operation throughout the 1970s and 1980s, the Alaska Pipeline became perhaps the most famous—and certainly the most iconic and photographed—pipeline in the world. Since the late 1970s, when news articles discussed *any* pipeline around the world, they often portrayed TAPS—since it’s one of the few elevated hydrocarbon pipeline systems in the world. It is perhaps the only petroleum project for which numerous children’s books have been written.³ Like Hoover Dam or the Panama Canal, TAPS served as a cultural icon for American ingenuity, the prowess of modern engineering, and the proclaimed mastery of the natural world.

If the pipeline was an international icon, it became especially freighted with meaning for Alaskans. The construction of the pipeline system—at the time the largest private-capital project in world history—transformed the young polity of Alaska into a petrostate. Following the construction of TAPS, the vast majority of the state’s revenue flowed directly from the operation of the pipeline and the export of oil. The construction of the pipeline transformed Alaska from one of the poorest to one of the richest states in America. For Alaskans it is known simply as “the pipeline.” It is the state’s “main

¹ Colman McCarthy, “Saved in Alaska”, *Washington Post*, 9 November 1991.

² George H. W. Bush, “Remarks at a Fundraising Luncheon for Senator Frank H. Murkowski”, 11 December 1991, in Gisle Holsbø Eriksen, “From Jimmy Carter to George W. Bush: Presidential Policies and Involvement in the Debate over the Arctic National Wildlife Refuge, 1977–2009”(Master thesis, University of Oslo, Oslo, 2009), 67.

³ See Robert Redding, *The Alaska Pipeline* (Chicago: Children’s Press, 1980); Craig Doherty, *The Alaska Pipeline*, (Woodbridge CT: Blackbirch Press, 1998).

economic vein” and the facilitator of forty years of petro-prosperity.⁴ To others it constitutes a violation of Alaska itself—of its wilderness, its political independence, and its promise as a refuge from industrialism. Regardless of how Alaskans feel about the influence of the pipeline, it’s undeniably an international cultural icon.

4 This essay looks at petroculture specifically in relationship to one charismatic and outsized hydrocarbon infrastructure. While numerous books and articles have been written on TAPS, none have specifically focused on petroculture and how the infrastructure transformed Alaska’s culture between the 1970s and the present. As such, this essay aims to bring energy and Alaskan history into conversation with petrocultural studies. Much of the extant work on TAPS falls into two categories: environmentalist or boosterism. Environmental narratives tend to denounce the pipeline for despoiling Alaska’s pristine wilderness, while booster lauder engineers for overcoming herculean challenges.⁵ The works in both these categories tend to reflect a simplistic moral narrative of the pipeline and overlook its convoluted history. There are several excellent academic sources which overcome this

4 Campell Gardett, William Hoffman, Jim Palmer, Mike Szymanski, “Taking Stock as TAPS turns 40,” *Anchorage Daily News*, 27 May 2016.

5 Typical environmentalist works include Tom Brown, *Oil on Ice: Alaskan Wilderness at the Crossroads* (San Francisco: Sierra Club Books, 1971); Harvey Manning, *Cry Crisis! Rehearsal in Alaska (A Case Study of What Government By Oil Did to Alaska and Does to the Earth)* (San Francisco: Friends of the Earth, 1974); Michael McCloskey, *In the Thick of It: My Life in the Sierra Club* (Seattle: Island Press, 2012); Debbie Miller, *Midnight Wilderness: Journey’s in Alaska’s National Wildlife Refuge* (Braided River, 1990); Riki Ott, *Not One Drop: Betrayal and Courage in the Wake of the Exxon Valdez Oil Spill* (Chelsea Green Publishing, 2008); David Standlee, *Oil, Globalization, and the War for the Arctic Refuge* (State University of New York Press, 2006). Booster narratives include John Miller’s *Little Did We Know: Financing the Trans-Alaska Pipeline System* (Cleveland: Arbordale LLC, 2012); Kenneth Harris, *The Wildcatter: A Portrait of Robert O. Anderson* (New York: Weidenfeld & Nicolson, 1987); Armand Spielman, Michael D. Travis, *The Landmen: How They Secured the Trans-Alaska Pipeline Right-of-Way* (Anchorage: Publication Consultants, 2016); H.M. “Ike” Stemmer, *South from Prudhoe*. (Houston: Universal News Inc, 1977); John Sweet, *Discovery at Prudhoe Bay* (Surrey, BC: Hancock House Publishers, 2008).

problematic binary, but these texts offer their own scholarly limitations. Quite simply, those texts that focus on building the pipeline neglect its legacy and broad geographical impacts, while those texts that examine the environmental consequences of Alaskan oil often fail to recognize the historical influence and endurance of the system.⁶ This work aims to redress these gaps and offer a wide-ranging history of TAPS and Alaskan petroculture.

Petroleum and the Trans-Alaska Pipeline System 5
were the crucial energy source and infrastructure which undergirded and co-created much of modern Alaskan society. Since its approval in 1973, TAPS has been the most important economic facility in the state. As the only infrastructure for exporting oil from Alaska’s North Slope, the pipeline was the keystone which permitted Alaskan Arctic oil production.⁷ The “Silver Snake” also serves as an instructive infrastructure for understanding the ebbs and flows of Alaska’s petroculture, as well as the rise and fall of oil fortunes in the far north.⁸ This study is not exhaustive, but aims to capture some of the prevailing currents which reflected Alaska’s cultural consciousness.

Petroculture has emerged as a valuable theoretical lens to understand the influence of petroleum in the production and reproduction of culture.⁹ Environmental historians have long

6 George Busenberg, *Oil and Wilderness in Alaska* (Washington, D.C.: Georgetown University Press, 2013); Peter A. Coates, *The Trans-Alaska Pipeline Controversy* (University of Alaska Press, 1991); John Hanrahan, Peter Gruenstein, *Lost Frontier: The Marketing of Alaska* (New York: W.W. Norton, 1977); Stephen Haycox, *Battleground Alaska: Fighting Federal Power in America’s Last Wilderness* (Lawrence: University Press of Kansas, 2016).

7 Since Alaska became an oil producer in the late 1950s, TAPS and the North Slope have contributed roughly 18.5 billion barrels, while fields in and around the Cook Inlet have contributed roughly 1.4 billion barrels (2023).

8 Peter Coates used evocative term in his essay “The Trans-Alaska Pipeline’s Twentieth Birthday: Commemoration, Celebration, and the Taming of the Silver Snake,” *The Public Historian*, vol. 23, n° 2, 2001, 63–86.

9 Sheena Wilson, Adam Carlson, Imre Szeman, *Petrocultures: Oil, Politics, Culture* (McGill-Queen’s Press-MQUP, 2017).

noted the intimate relationship between energy sources and social dynamics, with scholar John McNeill arguing that each civilization can be organized by its “energy regime”.¹⁰ Petrocultural studies takes this insight further, moving beyond material conditions and analyzing the identities and practices of cultures situated within hydrocarbon production and consumption. Petroculture can be seen not only in cultural products like film, literature and music, but also the broader set of social values and conventions like political culture. Petroculture has been variously theorized as foundational to modern consumer culture, an entire phase of capitalism, and advanced through cultural strategies of evasion and denial.¹¹

7 Despite excellent existing scholarship, petroculture has too often been treated as static, hegemonic, and harmonic. The history of TAPS demonstrates how conceptions of petroculture provide an invaluable lens to understand Alaskan society, but also why additional attention to temporality, social tension and omnipresent fossil resistance is necessary. This essay offers a historically nuanced conception of petroculture that pays particular attention to changing cultural conceptions over time, dissonant cultural trends, and the power of infrastructure in shaping social norms and expectations. While scholars of petroculture have paid particular attention to the production and consumption of hydrocarbons, the history of TAPS demonstrates the centrality of analyzing other aspects of the petroleum supply chain, namely infrastructures like pipelines, tankers, and refineries.

8 The construction and endurance of TAPS forged overlapping and evolving petrocultures. Rather than a uniform and static oil culture, the pipeline’s social significance ebbed and flowed with the passage of time and the uneven transit of oil from Prudhoe Bay through Prince William Sound. The pipeline itself became the gauge for not only

the State’s revenues, but for the economic and cultural consciousness of its people. According to Alaskan journalist Elizabeth Harball, oil production at Prudhoe Bay and the construction and operation of TAPS “led to the state’s highest highs and lowest lows.”¹² TAPS became the indispensable artery fueling the beating heart of Alaskan state and society.

The controversy, construction, and operation of the Trans-Alaska Pipeline System changed Alaska’s culture dramatically; it also transformed American and global cultural imaginaries of Alaska. Journalists, commentators, and critics began referring to Alaskans after the discovery of Prudhoe Bay as “Blue Eyed Arabs.” In the midst of the 1970s oil crises, this capacious term offered a combination of exoticism, orientalism, and jealousy for the suddenly-rich people of Alaska. Yet this term was sometimes embraced by Alaskans themselves, who used the phrase in a tongue-in-cheek fashion.¹³ Whether intentional or not, “Blue Eyed Arabs” also communicated long standing tropes about Alaska not being fully American because of its large Alaska Native population. The term also elided the fact that Alaska Natives were now major contributors, stakeholders, and—at times—victims of the oil industry. Commentators also used to the term refer to other northern states—especially Scotland, Norway, and Alberta—who became major oil producers during the 1970s and 1980s.¹⁴ Blue Eyed Arabs communicated that while the center of gravity of the global oil industry had shifted to the Middle East following World War Two, Western nations were shifting

¹⁰ John R. McNeill, *Something New Under the Sun: An Environmental History of the Twentieth-Century World* (New York: W.W. Norton & Co., 2000), 298.

¹¹ Ross Barrett, Daniel Worden (eds.), *Oil Culture* (Minneapolis: University of Minnesota Press, 2014), xix-xxv.

¹² Elizabeth Harball, “Alaska’s 40 Years of Oil Riches Almost Never Was”, *National Public Radio*, 24 June 2017.

¹³ Craig Medred, “Reality Bites”, *craigmedred.news*, 12/12/2019. Url: <https://craigmedred.news/2019/12/12/reality-bites/> (accessed 03/06/2023).

¹⁴ For instance, see Joe LaRocca, *Alaska Agonistes: The Age of Petroleum, How Big Oil Bought Alaska* (North East PA: Rare Books, 2003), 3; Richard B. Wilson, “Severance Taxes, Energy Resources and Blue Eyed Arabs: Is the Power to Tax the Power to Survive?”, 29 (Bureau of Governmental Research and Service, University of Colorado, Boulder, July 1981); One publication used the term to refer to Norway’s demanding offshore leasing regime, Harold Burton Meyers, “Blue-Eyed Arabs Scramble for the Riches of the North Sea,” *Fortune*, June 1973, 142.

their petroleum industries to the far north and these peoples would now confront the burdens and prospects of oil wealth.

10 Alaska experienced four distinct petrocultural eras related to TAPS. Each of these political-economic periods changed and shaped the culture of Alaska.

11 First, the sheer enormity of the proposed pipeline system and its impact on the far north created a “maelstrom of change”, in the words of Alaska’s Governor Jay Hammond. Alaska came to be seen less as a military outpost (as it had been in the 1950s) and more as an emerging oil state. At the same time, a Native political revolution and unprecedented environmental movement stalled the pipeline, forced major reforms, and reconfigured social relations across society. The pipeline became the site of extraordinary contestation over oil development and the future of what many perceived as the nation’s last great wilderness.

12 Second, the construction and early operation of the pipeline helped to create nothing less than “a new social order” for Alaska. Few periods in Alaskan history were so transformational, unsettling, and frenetic as 1974–85. By the end of this period, Alaskans had reconfigured their political economy and created a novel society which journalist James Fallows called a “Boreal super state”. The State’s population effectively doubled—changing the culture, values, and collective politics of Alaska. The period made Alaskans rich, but also made state government far more volatile and dependent as Alaskans shifted their political economy to run on oil.

13 Third, the halcyon oil years gave way to the one-two punch of a double bust in the late 1980s and early 1990s as oil prices plummeted, a major recession gripped Alaska, and the *Exxon Valdez* oil spill desolated Prince William Sound. These years underscored some of the costs of the oil age, but did not fundamentally change Alaska’s deeply ingrained relationship with oil revenue. These years also witnessed the intensifying campaign to drill in the Arctic National Wildlife

Refuge, which highlighted a divergence between Alaska’s oil culture and national environmental currents opposed to petroleum extraction in areas of the Arctic perceived as sacred.

14 Fourth, modern Alaska’s economy and society in the 21st C. has matured and diversified, heralding a new era of “Arctic Ambivalence” that has come to dominant major elements of Alaskan society. Alaskans are on the front lines of global climate change—experiencing more wildfires, coastal erosion, and permafrost thaw—yet large numbers of Alaskans remain committed to an extractive hydrocarbon economy. Despite being more economically and socially mature, paradoxically Alaskans seem less able to envision—much less realize—an economy and culture beyond oil. In the 21st C., Alaskans are trapped in the political economy and society they created with the construction of TAPS.

“MAELSTROM OF CHANGE” (1968–1973)

15 On December 27th 1967, a crew of wildcatters from the Atlantic-Richfield Oil Company (ARCO) felt the roar of natural gas shake the earth from their drill on Alaska’s North Slope. Three months later, the oil explorationists formally discovered an underground ocean of oil beneath this prolific gas cap and the world soon had a new geographical term that was synonymous with oil abundance: “Prudhoe Bay.” At the time Alaska was one of the poorest American states, yet most realized it was rich in natural resources. Vic Fisher, the youngest participant at the Alaska Constitutional Convention in 1958, recalled feeling that Alaska was on the verge of something “very big”.¹⁵

16 Alaska was front-page news around the world as journalists, politicians, and the public fixated on two salacious developments: the state’s nearly billion-dollar lease sale (at the time the largest in world history) and the confounding issue of how to get the oil from the remote and

¹⁵ Tim Bradner, “Where is All Our Oil Money Going?” (Lecture at University of Alaska Anchorage), 9 November 2017.

forbidding North Slope to market. This international attention shifted narratives of Alaska from a 1950s military stronghold to a state gripped by oil fever.¹⁶ During this period journalists began using phrase “Blue Eyed Arabs”, yet this shorthand for Alaska’s publicly-owned oil wealth elided the austerity common throughout the state. This only began to change in September 1969, when Alaska held an oil lease sale for North Slope parcels adjacent to Prudhoe Bay and received \$900 million dollars—nine times the state’s annual budget.¹⁷ “Alaska has become established as America’s greatest oil province”, declared Alaskan Governor Bill Egan in a 1970 speech; “Ponder for a moment the promise, the dream, and the touch of destiny.”¹⁸

17 Alaska’s culture—especially in its largest settlements—became enveloped by the boomtown mentality which had pervaded its past resource rushes. Oil companies—especially the “big three” of Humble (Exxon), British Petroleum, and Atlantic-Richfield (ARCO)—moved quickly to plan a pipeline from the North Slope to tidewater. They did not consult the Federal Government, the State of Alaska, or Alaska Natives before deciding the technology and route of their proposed Trans-Alaska Pipeline System from Prudhoe Bay to Valdez.

18 The oil rush caused significant ecological harm and social turmoil. “We suffered serious trespass”, recalled Eben Hopson, an Inupiaq elder and mayor of the North Slope Borough. Oil companies bulldozed Inupiaq fish camps and ancestral sites on the North Slope, disrupted ancient caribou migration routes, and left behind “the junk of oil exploration” according to Hopson.¹⁹ In

its haste to exploit the rush, the State of Alaska bulldozed a hastily-planned winter road called the “Hickel Highway” to the North Slope. The state created the exact kind of ecological disaster and public relations fiasco the oil industry wished to avoid.²⁰

The prospect of a billion-dollar pipeline alarmed 19 two insurgent social groups: Alaska Natives and environmentalists. Two lawsuits by the Native community of Stevens Village and national environmental organizations, respectively, stalled the pipeline project in April 1970. The fallout of the Native court victory sent “ricochets... from Houston to Fairbanks”, the *Seattle Times* reported, and warned that “the project could be dead altogether.”²¹ Most pro-development Alaskans fumed as the pipeline project and its associated work contracts sputtered to a halt. After receiving death threats, the lawyer representing Alaska Natives was offered armed guards for protection.²² Jim Kowalsky, one of the founders of the Fairbanks Environmental Center, recounted a neighbor refusing to help when his car wouldn’t start in -30 Fahrenheit winter temperatures because of Kowalsky’s work opposing the pipeline.²³

The lawsuits forced TAPS owner companies to 20 lobby Congress and help to resolve outstanding indigenous land claims, which culminated in the Alaska Native Claims Settlement Act of 1971 (ANCSA). ANCSA provided roughly one billion dollars and forty-four million acres of land to Alaska Natives, and created a pipeline right-of-way through the center of Alaska. The law proved a cultural watershed because it tied native justice to oil development and empowered a new category of for-profit native corporations. Half a

¹⁶ Victoria Hermann, “The Birth of Petroleum Path Dependence: Oil Narratives and Development in the North”, *American Review of Canadian Studies*, vol. 49, n° 2, 303.

¹⁷ Todd Moss, *The Governor’s Solution: How Alaska’s Oil Dividend Could Work in Iraq and Other Oil-Rich Countries* (Brookings Institution Press, 2013), 52.

¹⁸ Harball, “Alaska’s 40 Years of Oil Riches Almost Never Was”, *National Public Radio*, 14 June 2017.

¹⁹ Eben Hopson, “On the Experience of the Arctic Slope Inupiat with Oil and Gas Development in the Arctic”, *ebenhopson.com*, 1976. Url: <http://ebenhopson.com/the-berger-speech/> (accessed 03/06/ 2023).

²⁰ Chris Allan, “The Brief Life and Strange Times of the Hickel Highway: Alaska’s First Arctic Haul Road”, *Alaska History*, vol. 24, n° 2, 2009, 2-29.

²¹ Stanton H. Patty, “Court Ruling on Alaska Indians’ Claims May be Crucial to Pipeline Development”, *Seattle Times*, 7 April 1970.

²² Donald Mitchell, *Take My Land, Take My Life: The Story of Congress’s Historic Settlement of Alaska Native Land Claims, 1960-1971* (University of Alaska Press, 2001), 330.

²³ Jim Kowalsky, interviewed by Philip Wight. Fairbanks, Alaska, 26 September 2017.

billion dollars, more than half of the total settlement monies, would only be granted if Alaskan oil development and TAPS went forward. “I cannot overemphasize the feeling of betrayal that would occur among Native people of Alaska”, Alaska Federation of Natives President Don Wright wrote President Nixon in May of 1972, “if there is further delay in issuing the pipeline permit.”²⁴ Additionally, ANCSA transformed Alaska Native communities because it provided the money and land to a dozen for-profit Native regional corporations who now had a fiduciary responsibility to their new shareholders. Via the pipeline controversy, oil companies, pro-development politicians, and even some native elites attempted to remake Alaska Natives in the image of American capitalism.

21 Throughout the United States, TAPS became the most contested infrastructure project in the early 1970s due to environmental concerns. For many Americans, the line symbolized not just an invasion of the America’s last wilderness, but also the profligacy of American society. All across the nation, citizens voiced their opposition—from the National Rifle Association to schoolchildren in Ohio, to the Audubon Society.²⁵ Broad public concern over the pipeline reflected an extraordinary diversity of concerns. Carl Pope of Zero Population Growth (who later became Executive Director of the Sierra Club), told an audience in 1971 that if Americans switched to a two-child family “we would save far more fuel than the Alaska pipeline can provide.”²⁶ The battle over TAPS was not simply about saving Alaska’s wildlife and wilderness, it was a contest between low-carbon conservation and refueling America’s high-energy petroculture.

22 In the summer of 1973, with oil becoming more scarce, the U.S. Senate voted that TAPS had satisfied the requirements of the National Environmental Policy Act of 1969 to expedite

its approval. In October, the Arab Oil Embargo gripped the Western world and skyrocketed oil prices up four hundred percent. In November 1973, President Nixon signed the Trans-Alaska Pipeline Authorization Act into law, which declared TAPS in the “national interest...because of growing domestic shortages and increasing dependence upon insecure foreign sources.”²⁷ 800-miles of pipeline were America’s foremost answer to the gas lines that would come to define the nation’s fraught relationship with petroleum during the oil crisis.

“A NEW SOCIAL ORDER” (1974-1985)

When Congress approved the pipeline and work began full bore in early 1974, this ultimately brought about nothing less than a new Alaskan social order: a new population, a new built environment, new native corporations, and new widespread oil wealth. The pipeline boom effectively doubled the population of Alaska, and permanently changed its cultural dynamics and complexion. The pipeline also brought tremendous new wealth for the young state of Alaska and its citizens. With this wealth came a new built environment, as cities rapidly expanded, and new roads, buildings and capital projects emerged throughout the state. The construction of the pipeline and the following oil age transformed Alaska from one of the poorest to the richest state in the union. 23

Even in towns a thousand miles away from the physical project itself, the intensity and scale of pipeline construction loomed over the entire state. Following congressional approval in 1973, construction first began in the Spring of 1974 on the Haul Road to the North Slope, with pipeline construction reaching peak intensity in 1975 and 1976. Alaska’s economic growth rate tripled in the first four months of 1975, compared to a year before, which itself was double 24

²⁴ Mitchell, *Take My Land, Take My Life*, 517 (cf. note 22).

²⁵ Stanton Patty, “Busy Senator takes time to ease fears of children in Ohio”, *Seattle Times*, 15 October 1970, A13.

²⁶ “Zero Population Growth deceptively radical idea”, *Seattle Times*, 14 February 1971, E8.

²⁷ “An Act to Amend section 28 of the mineral leasing Act of 1920, and to Authorize a trans-Alaska oil pipeline, and for other purposes”, Public Law 93-153, 16 November 1973.

the pre-construction year of 1973.²⁸ Costing in excess of \$15 billion, TAPS vastly overshadowed Alaska’s entire economy, which was only 1.5 billion in 1973.²⁹

- 25 Over 70,000 people worked on the project between 1974-1977, with a peak construction workforce exceeding 28,000 people in 1976. The project famously attracted workers from across the country, but Alyeska and its contractors had preferential hiring for Alaskan citizens, Alaska Natives, and women. Almost ten percent of the pipeline’s total workforce were women, and their entrance into a typically-male field symbolized the affirmative action efforts of the era.³⁰
- 26 The approval of the construction dramatically increased in-migration to Alaska, with tens of thousands of people moving to Alaska from the lower forty-eight—especially oil states like Texas and Oklahoma. The influx of these individuals would significantly change the culture of Alaska, and “sourdoughs” who had been here before the pipeline called these folks “Tex-Alaskans”. Pointed points, cowboy hats, and large belt buckles announced these new Alaskans. Country singers like Sam Little, who wrote and performed the Alaska pipeline song *Trucking on the Kamikaze Trail* in 1976, celebrated and commemorated the work being done by these blue-collar workers.³¹ Even more consequentially, Alaska’s newest residents brought with them different cultural beliefs, political preferences, and religious practices to the last frontier.³²
- 27 The high salaries—as much as \$1,000-1,700 per week—during a period of recession in the United States caused a new “black gold rush”. These

dynamics proved especially salient since, in the pre-pipeline years, those emigrating to Alaska were typically moving to seek a new lifestyle, get away from people and the pressures of fast-paced life; while the new arrivals were coming to Alaska very explicitly for monetary reasons. “This state is like a great big bottle of megabucks—big bucks that distort men’s minds, visions, and values,” reflected journalist Edward Fortier in 1975.³³ Yet many also came and did not find fortune—they waited in long lines at union halls, often with no luck. Despite the pipeline boom, Alaska had the same unemployment rate as the lower 48.³⁴

For Alaskans, everyday life amidst pipeline construction offered a mix of the profane and quotidian. With the boom came drinking, prostitution, crime, and general excess that followed the highest paid blue-collar jobs in the United States, if not the world at the time. These stories of debauchery garnered the most attention, but did not reflect the cultural experiences of everyday Alaskans. In contrast to the outside newspapers who portrayed Fairbanks and Anchorage as “Gommorahs of the Far North”, according to veteran journalist Dermot Cole, everyday life continued for Alaskans, who brought their kids to school, walked their dogs, and tried to live with some semblance of normalcy amidst the tumult.³⁵

In a similar contrast, Alaskan material culture during pipeline construction was one of simultaneous scarcity and abundance. Communities directly along the pipeline route, namely Fairbanks and Valdez, were most impacted. In the midst of the biggest resource rush Alaska had ever experienced, with individual salaries at all-time highs, public services were stretched thin and costs soared. Telephone lines were constantly busy as demand overwhelmed available circuits. The electric utility in Fairbanks stopped interconnecting new meters to avoid more brown outs. Nearly every community

²⁸ Edward J. Fortier, “Alaska Pays the Pipers”, *The National Observer*, 20 September 1975.

²⁹ *Alaska Economic Trends*, December 1999, 10.

³⁰ Georgia Paige Welch, “Right-of-Way: Equal Employment Opportunity on the Trans Alaska Oil Pipeline, 1968-1977” (Ph.D diss., Duke University, Durham, 2015).

³¹ Dermot Cole, *Amazing Pipeline Stories: How Building the Trans-Alaska Pipeline Transformed Life in America’s Last Frontier* (Epicenter Press (WA), 1997), 38.

³² K. L. Marshall, *Faith and Oil: How the Alaska Pipeline Shaped America’s Religious Right* (Wipf and Stock Publishers, 2020).

³³ Edward J. Fortier, “Alaska Pays the Pipers” (cf. note 28).

³⁴ Naomi Klouda, “Like 80s Recession, net migration turns negative”, *Alaska Journal of Commerce*, 17 May 2017.

³⁵ Cole, *Amazing Pipeline Stories*, 12 (cf. note 31).

resource was limited. Schools, banks, and cities couldn't keep workers, as they kept leaving for higher paid pipeline work. While pipeline workers and other in-demand professions experienced major wage increases, non-oil workers purchasing power declined as inflation soared.

30 Alaskans reacted rather defensively to the coming of the pipeline and went so far as to elect an environmentalist governor. “There was some feeling of unease about the coming pipeline in early 1974,” According to former Anchorage Mayor Jack Roderick. Many felt the pipeline was too large for Alaska's small population and economy.³⁶ Even before the height of construction and social disruption, Alaskans opted for a heterodox political leader to guide them through the boom. In 1974, by a very slim margin, Alaskans elected a republican environmentalist named Jay Hammond. A bearded bush pilot, hunter, and “reluctant politician”, Hammond ran on preserving Alaskan values and renewable natural resources. He had been one of the few Alaskan politicians to oppose the pipeline. Hammond recognized the State had a singular opportunity to save its oil wealth and steer Alaska towards a more sustainable economic future. Hammond called for Alaskans to “slow down and see where we're going before we begin any new developments.” As the specter of the pipeline loomed, he offered Alaskans a vision of a different kind of future.³⁷

31 As the election of Hammond highlights, the celebration of Prudhoe Bay and enthusiasm for the pipeline were far from universal. As one journalist reported in 1975, the pipe lengths, staged in Valdez, Fairbanks, and the North Slope, “both excite and revolt” Alaskans. There were always a subset of Alaskans—a vocal minority—who feared what the oil boom would do to Alaska's political culture, natural resources, and subsistence lifestyles. “It seems Alaska isn't so much in a state of transition as trauma,” Hammond concluded; “Alaska isn't transitioning, it is transcending from

its rather slumberous past and literally leaping into a national and international maelstrom of change.”³⁸ Despite the euphoria of many who rode the boom, there was also a period of mourning amongst many Alaskans and many Americans for what had been lost. Long-time Alaskans called their state, changing rapidly before their eyes, the “lost frontier.”³⁹

Ron Rau, a pipeline worker and free-lance writer, 32 termed it “the taming of Alaska.” He wrote in 1976: “In many ways, the pipeline is like an iceberg. What you see with your eyes is only a fraction of what is really there.” Rau argued the “real threat” to the Alaskan wilderness and down-to-earth lifestyle was “the part of the pipeline you cannot see: the money, the people and, most of all, the boom-town mentality that has permeated Alaskan society—a warm, modern house, a steady job and two snowmobiles in every garage.”⁴⁰

The celebration of “oil in” in 1977 marked both an 33 end and a new beginning. Because speed was of the essence for the pipeline companies, in just over three years the herculean pipeline project—with all its attendant secondary infrastructures—was completed. “Last Pipe Weld Seals off a Lifestyle”, proclaimed one headline in *The Anchorage Times*.⁴¹ Many Alaskans were happy to see the end of this lifestyle. The social friction caused by the influx of newcomers led to a famous Alaskan bumper sticker: “Happiness is 10,000 Okies going south with a Texan under each arm.” Many southerners working on the pipeline didn't disagree—their version of the bumper sticker added, “With \$20,000 in each pocket.”⁴²

The end of three wild years of inflation, sky-high 34 wages, and exuberance for many Alaskans was also the beginning of a new era for American

³⁶ Jack Roderick, *Crude Dreams: A Personal History of Oil & Politics in Alaska* (Seattle and Fairbanks: Epicenter Press, 1997), 387.

³⁷ *Ibid.*, 390.

³⁸ Edward J. Fortier, “Alaska Pays the Pipers” (cf. note 28).

³⁹ John Hanrahan, Peter Gruenstein, *Lost Frontier: The Marketing of Alaska* (New York: W.W. Norton, 1977).

⁴⁰ Ron Rau, “The Taming of Alaska,” *National Wildlife*, October–November 1976, 19–20.

⁴¹ Mike Kennedy, “Last Pipe Weld Seals Off a Lifestyle,” *Anchorage Times*, 5 June 1977.

⁴² Cole, *Amazing Pipeline Stories*, 58 (cf. note 31).

energy production and Alaska’s burgeoning petrocultural state. The state experienced a brief recession in 1977 as the TAPS workforce demobilized and tens of thousands left the state, but the economy quickly rebounded as world oil prices soared and the State of Alaska earned far more than expected from its oil.⁴³ Departing pipeliners were replaced by newcomers eager to build new modern infrastructure for the state, work in its new hospitals, teach in its schools and universities, and serve as professionals across the state—of course for extremely competitive wages.



Figure 2: Graffiti on the recently-completed pipeline north of Fairbanks, 1977-1978. Source: Richard Seifert.

35 In 1978, a particularly iconic billboard symbolized Alaskans’ angst. Someone spray painted “WHERE WILL IT ALL END?” on the pipeline north of Fairbanks. The message served as reminder of the widespread discontent brought by the pipeline and what many saw as its broad assault on Alaska’s wilderness and traditional lifeways. At the beginning of pipeline operations, some Alaskans were already worried about the end.

36 From the earliest days of its construction, the pipeline emerged as a cultural and marketing bonanza, as Americans and international visitors were fascinated by the narrative, scale, and controversy of the pipeline. Entrepreneurs sold

commemorative kitsch with oil from the first barrel of Arctic crude that moved through the pipeline. Gift shops continue to hawk hats, mugs, and shirts with its serpentine iconography. The pipeline starred in numerous Hollywood films and fictional narratives. Much to environmentalists’ chagrin, the pipeline even became an unlikely tourist destination—even for eco-tours—with “pipeline viewpoints” along Alaska’s highways. In 1983 alone, over half a million people visited the pipeline. Exxon approvingly called TAPS “one of the State’s prime tourist attractions.”⁴⁴

37 “The pipeline became the Alaska version of the Seattle Space Needle or the Golden Gate Bridge”, according to Alaska cultural historian David Reamer; “It is visual shorthand for the location.” As Reamer explains, When a Carmen Sandiego villain attacked Alaska in 1991, he HAD to steal the pipeline. “No other monument, building, or location offered the same economic and popular cachet.”⁴⁵ Indeed, TAPS emerged as the first hydrocarbon pipeline to become an international icon.

38 The pipeline transformed the built environment of Alaska far beyond its narrow right of way. The skyscrapers of new Alaska Native corporations created out of the pipeline controversy began to dot the skyline of Anchorage. Half of all homes in Alaska today were constructed during the pipeline boom of the early 1970s to the early 1980s.⁴⁶ Anchorage experienced rapid and largely unplanned growth. “Almost all Americans would recognize Anchorage”, quipped journalist John McPhee, “because Anchorage is that part of any city where the city has burst its seams and extruded Colonel Sanders.”⁴⁷

39 While Alaska’s history was dotted with colonial ghost towns from past resource rushes—fur, gold, and copper—astute observers saw a

⁴³ Gregg Erikson, Mitt Barker, “The Great Alaska Recession”, *Erikson & Associates*, 12/05/2015. Url: <https://www.alaskapublic.org/wp-content/uploads/2015/06/Erikson150412-The-Great-Alaska-Recession.pdf> (accessed 20/03/2023).

⁴⁴ Walter K. Wilson, “Taps revisited”, *The Lamp*, Fall 1984.

⁴⁵ David Reamer (@ANC_Historian) tweet, 2022.

⁴⁶ Casey Kelly, “That 70s Home: How AHFC is Trying to Update Alaska’s Aging Housing Supply”, *KTOO*, 19 March 2015.

⁴⁷ John McPhee, *Coming Into the Country* (New York: Farrar, Straus and Giroux, 1976), 130.

different legacy following the Prudhoe and pipeline boom. Alaskan economist Arlon Tussing predicted that “the rich complex of businesses and professions; schools and churches; clubs, cliques and factions; subcultures and lifestyles that flourished in Alaska during the Prudhoe Bay oil boom of the 1970s and 1980s—and the people who flocked to the state during that period—will not simply vanish in the next few years...”⁴⁸ For all its precarity, scarcity and abundance, the oil era had brought permanent social changes. The sweeping impact of TAPS would be felt beyond year 2000, predicted journalist James Roscow, who wrote a defining book on the pipeline, “as the state’s vast natural wealth is converted into material affluence and a new social order.”⁴⁹

40 The flow of oil through the pipeline in the late 1970s did not come “at a trickle”, but quickly accelerated to 1.2 million barrels per day.⁵⁰ Alaskans immediately began to receive a significant oil royalties and tax revenue. The resulting oil wealth only exacerbated growing inequality between Alaska (with its small population) and other states, most of whom were not enjoying a petroleum windfall. In this context, the phrase “Blue-Eyed Arabs” referred to Alaska’s fiscal exceptionalism.⁵¹ “Ninety-four percent of all our state revenue is coming down that 48-inch pipe,” explained Alaska state legislator Russ Meekins Jr. in 1980. “Look around,” he implored. “Everything you see we can attribute to the pipeline. The schools we have. The streets that are paved. It’s incredible. We’re living off that thing.”⁵² No wonder that when the United States’ Postal Service issued a commemorative stamp for the

⁴⁸ Arlon R. Tussing, “Alaska’s Petroleum-Based Economy,” in Thomas Morehouse (ed.), *Alaskan Resources Development: Issues of the 1980s* (Routledge, 2019), 74.

⁴⁹ James Roscow, “James Roscow talked to Alaskans About those changes. This is what he found.” *Alyeska Reports*, 1975.

⁵⁰ Sen. Henry Jackson, “Alaska Oil Development: International and Local Implications” (World Trade Club of Seattle: Seattle WA, 1969), 6,13

⁵¹ Charles McClure Jr., “The Taxation of Natural Resources and the Future of the Russian Federation,” *Environment and Planning*, vol. 12, n°3, 1994, 309–318.

⁵² Robert Atwood, “Pipeline Editorial,” *The Anchorage Times*, 1980.



Figure 3: 25th Anniversary Alaskan Statehood Stamp. Source: United States Postal Service, 1984.

25th Anniversary of Alaskan Statehood in 1984, they featured the pipeline as a fixture of a mountainous and wild Alaskan landscape.

The wealth flowed to urban and rural Alaska alike. In Anchorage, Alaska’s largest city, oil dollars funded a new convention center, library, and museum. “I can’t imagine Alaska without the pipeline” remarked Diane Brenner of the Anchorage Museum of History and Art in the late 1990s. “The building where I work,” she added, “was built with (oil) money. The government wouldn’t run in this state without pipeline oil money.”⁵³ The influx of new social spending, especially between 1980–1985, remade Alaska’s built environment and the relationship between citizens and the state.

⁵³ Coates, “The Trans-Alaska Pipeline’s Twentieth Birthday”, 65 (cf. note 8).

42 Even more than population booms and the transformation of the built environment, the biggest legacy of the oil boom proved to be the Permanent Fund and Permanent Fund Dividend. As early as the 1930s, Alaskan leaders recognized one way to break the boom-bust cycle of the extractive economy was to save mineral wealth in a state trust fund. Under Governor Hammond, Alaskans amended the Constitution in 1976 to save roughly ten percent of all mineral revenues and royalties in an investment account called the Permanent Fund. While early estimates suggested the Permanent Fund could be as large as 1.3 billion dollars by 1985, the fund amassed 4.3 billion by 1983.⁵⁴ Governor Hammond then used his considerable political power to create the Permanent Fund Dividend (PFD), whereby roughly half of all earnings from the Permanent Fund were disbursed directly to each Alaskan as a cash dividend each year.

43 On June 14th, 1982, the State of Alaska mailed out the first PFD check to each Alaskan man, woman, and child for \$1,000. Alaska became the first polity of any kind to disburse a sovereign wealth funds earnings directly to citizens, without regard to need.⁵⁵ In time, the PFD emerged as the state’s most popular policy and became a fixture of Alaskan culture and national perceptions of Alaska. Rather than just a mechanism to protect the principal of the Permanent Fund, as Hammond intended, for many Alaskans the Dividend became an end in itself—the very purpose of the fund. Citizens mistakenly but tellingly referred to getting their “permanent dividend fund” money.

44 During this same period, Alaskans leaders—including Jay Hammond, to his everlasting regret—voted to repeal the state’s modest income tax. Ten years after the startup of TAPS, the State spent four times as much money per resident as it did in 1977, but collected far less revenues from citizens and non-oil sources.⁵⁶

Alaskans effectively had negative taxation, as oil wealth paid for government services, citizens received cash payouts from the Permanent Fund, and residents became “disconnected” from state revenue source.⁵⁷

DOUBLE BUST (1986-1999)

The heady atmosphere of the late 1970s and early 1980s laid the seeds for a twofold downfall that permanently transformed Alaska’s petroculture. This double bust of the later 1980s stemmed from fiscal instability and an environmental disaster that constituted the single largest failure of TAPS. Both events left a deep wound in the Alaskan psyche and ended the halcyon days of the oil boom. 45

While some believed the high oil prices and high state spending created in the wake of the 1970s oil crises would continue indefinitely, careful observers knew oil history suggested the opposite: busts always followed booms. The phenomenal growth of state spending in the early 1980s stopped in July 1985. The reversal of state spending had a cascading impact across the economy, bursting the bubble in housing and the heavy construction industry. By April, 1985, Alaska was losing 1,660 jobs per month. Then oil prices began to decline in December 1985. In 1986, Saudi Arabia dramatically increased production, and due to its role as the global swing producer, the bottom fell out of the global oil market. Oil prices fell below ten dollars a barrel and the State responded by further cutting spending, which only intensified job losses.⁵⁸ State spending cuts hit the state particularly hard, since a quarter of Alaska’s workforce was employed by the state—the highest percentage of any state in the union.⁵⁹ 46

⁵⁷ For the Alaska Disconnect, see Mike Navarre, “Fixing the Alaska Disconnect”, *Fairbanks Daily News-Miner*, 6 April 2017.

⁵⁸ Gregg Erikson, Mitt Barker, “The Great Alaska Recession”, *Alaska Public Media*, 12 April 2015.

⁵⁹ William S. Brown and Clive S. Thomas, “The Alaska Permanent Fund: Good Sense or Political Expediency?”, *Challenge*, vol. 37, n° 5, 1994, 39.

⁵⁴ Dermot Cole, “40 years of writing about the Permanent Fund and its place in Alaska”, *Anchorage Daily News*, 2017.

⁵⁵ David A. Rose, *Saving for the Future: My Life and the Alaska Permanent Fund* (Epicenter Press, 2008).

⁵⁶ James Fallows, “Nigeria of the North”, *The Atlantic*, 1 August 1984.

47 The collapse of oil prices devastated Alaska’s economy and resulted in economic turmoil that came to be known as, “The Great Alaskan Recession”. Alaska lost more than 20,000 jobs from 1985 to 1987. Due to an over-leveraged real estate sector, fifteen banks went bankrupt or consolidated. The recession got so bad that some Alaskans just left the keys to their financially-underwater houses in the mailbox, dropped their pets off at nearby animal shelters, and left the state. It was the worst recession the history of the State of Alaska.⁶⁰ By the end of 1987, 14,000 houses in Anchorage sat empty and by the end of the decade there were more than 30,000 foreclosures. Overall, fifteen percent of the population left the state; it was a mass exodus.⁶¹ “The Trans-Alaska pipeline fulfilled the wildest dreams we had for the Alaskan economy”, recalled Alaska historian Claus-M. Naske, “but the boom lasted for only a few years”.⁶²

48 Between 1978 and 1986, Alaska spent more than thirty billion dollars. In the late 1980s, a popular bumper sticker encapsulated public sentiment: “God, please give us another boom. We promise not to piss this one away.”⁶³ Most Americans likely had little empathy for Alaskans, as the state had profited enormously when oil prices were high and other Americans were paying record sums for oil. This is why many referred to Alaskans as “blue-eyed Arabs” who had more in common with sheiks than middle America.⁶⁴

49 Paradoxically, while oil prices bottomed out at historic lows, the pipeline pushed more oil than ever before. In 1988, TAPS reached peak throughput at over two million barrels per day, yet Alaskans earned pennies on the dollar for their oil. The high flow of oil meant that the oil terminal at Valdez had to accommodate a record

number of supertankers to move the crude to the Lower 48. This moment of TAPS maximum capacity contributed to the worst environmental disaster in Alaska’s history.

On March 24rd, 1989, after departing the Trans- 50
Alaska Pipeline System’s Marine Terminal, the *Exxon Valdez* supertanker smashed into Bligh Reef in Prince William Sound. Tens of millions of gallons of North Slope crude oil gushed into the pristine waters over the next few days. The spill proved ecological disastrous, killing as many as half a million seabirds, tens of thousands of otters, hundreds of seals, at least 250 bald eagles, and twenty-two whales.⁶⁵ Images of dead or dying oil-covered birds, seals, and especially sea otters came to symbolize the disaster for most Americans.

The *Exxon Valdez* disaster provoked a sharp 51
but uneven backlash from Alaskans. Residents were outraged at the devastation and carnage wrought by the spill. While the tanker’s drunk captain, Joseph Hazelwood, received enormous public scorn, Alaskans also blamed the oil companies for their false safety promises and dismal cleanup performance.⁶⁶ The disaster was particularly devastating for Alaska Natives and fishermen who relied on Prince William Sound for their subsistence and livelihood. “Never in the millenium of our tradition have we thought it possible for the water to die,” Chief Walter Meganack reflected in the wake of the disaster. “It’s too shocking to understand.”⁶⁷

Paradoxically, the “bust turned into a boom”, 52
according to two Alaskan journalists. While the economy had begun to recover before the *Exxon Valdez*, the spill injected billions of dollars into the Alaskan economy and fueled a kind

60 Erikson, Barker, “The Great Alaska Recession” (cf. note 43).

61 *Alaska Economic Trends Magazine*, December 1999, 17.

62 “Alaska: 25 Years of Statehood”, *CQ Researcher*, 9 December 1983.

63 Amanda Coyne, Tony Hopfinger, *Crude Awakening: Money, Mavericks, and Mayhem in Alaska* (Bold Type Books, 2011), 43.

64 William S. Brown, Clive S. Thomas, “The Alaska Permanent Fund: Good Sense or Political Expediency?”, *Challenge*, vol. 37, n° 5, 1994, 40.

65 Melissa Bert, John Chaddic, “The Arctic in Transition—A Call to Action,” *Journal of Maritime Law and Commerce*, vol. 40, n° 4, 2009, 481.

66 Art Davidson, *In The Wake of the Exxon Valdez: The Devastating Impact of the Alaska Oil Spill* (San Francisco: Sierra Club Books, 1990).

67 Duane A. Gill, J. Steven Picou, “The Day the Water Died: The *Exxon Valdez* Disaster and Indigenous Culture”, in Steven Biel (ed.), *American Disasters* (New York University Press, 2001), 277-301.



Figure 4: Fairbanks TAPS-Valdez Mural. Source: PMER, REVS, and Fuel, 1995.

of disaster capitalism. “I’ve already said that if Hazelwood runs for governor, and my guys don’t vote for him,” a Fairbanks welding shop owner told a reporter in 1989, “I’m going to fire every one of them. He’s done more for us than any governor we’ve ever had. Too bad it had to happen from such a bad situation.”⁶⁸ With the construction of TAPS, Alaska had become a company town. Even when the oil industry was public enemy number one, it remained the economic engine of the state.

53 Years after the spill, its cultural legacy remained vexed and deeply contested. In 1995, three Brooklyn-based graffiti artists painted a mural in downtown Fairbanks. While the Chief of Police had consented to a mural and instructed the artists he depict mountains, wildlife, and Alaskan pioneers, the group had their own perception of Alaska. “We painted a pipeline that started with a shiesty character holding a fist full of money, the pipeline going down the wall, finally opening up with oil spelling our names,” recalled the artist PMER. “We threw in a bloody cross that said “Valdez” and gave him a mountain.”⁶⁹ While Alaskans wanted to see themselves as pioneers living amidst a scenic wilderness, outside observers had a different view.

⁶⁸ Coyne, Hopfinger, *Crude Awakening*, 58 (cf. note 63).

⁶⁹ PMER/ Catellovision, “Flashback to ‘95: PMER, REVS and FUEL in Alaska”, *blog.vandalog.com*. Url: <https://blog.vandalog.com/2013/05/27/flashback-to-95-pmer-revs-and-fuel-in-alaska> (accessed 25/11/ 2022).

54 Many local residents reacted with horror to the outsider’s depiction of Alaska. The local *Fairbanks Daily News-Miner* proclaimed, “Ghoulish mural gives neighbors a chill”. While the mural offered a cutting social criticism of Alaska’s petroculture, local residents—which included a senior citizens home across the street—found it “awful”. The Alyeska Pipeline Service Company was “offended” by the mural’s depiction of Alaska, and promised a swift cleanup.⁷⁰

55 Following the *Exxon Valdez*, oil industry marketing took on highly visible new marketing campaigns. While the spill was quite clearly Exxon’s fault, the entire Alaskan oil industry and the TAPS system were implicated. Therefore, companies like BP, ARCO, and Alyeska went into overdrive to remind Alaskans of their centrality to the Alaskan way of life. Countless advertisements each week in print, television, and on billboards communicated that oil companies were investing in Alaskan nonprofits, schools, and community programs. The underlying message was clear: Alaskan oil was not simply about money, it was about sustaining an entire culture—an entire way of life.

56 Perhaps the most visible demonstration of oil company philanthropy emerged in 1990. Following the Exxon Valdez, ARCO Alaska, BP, and Alyeska attempted to rejuvenate their

⁷⁰ Brian Donoghue, “Ghoulish mural gives neighbors a chill”, *Fairbanks Daily News-Miner*, 16 July 1995.

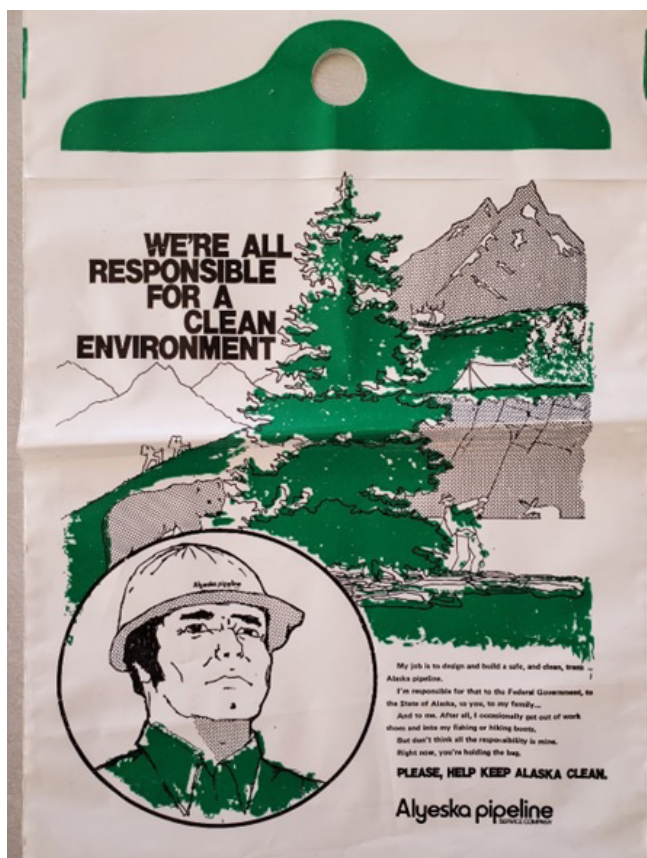


Figure 5: An Alyeska Pipeline Service Company trash bag which tells Alaskans “But don’t think the responsibility is all mine/ Right now, you’re holding the bag”, undated. Source: Richard Fineberg Papers, University of Alaska Fairbanks.

public image by purchasing millions of trash bags for annual public litter cleanups. ARCO first began sponsoring trash cleanup events with bright orange bags. When ARCO was purchased by BP in 1999–2000, the bags then bore BP’s logo. Eventually they became yellow. BP funded these efforts through a community organization called Alaskans for Litter Prevention and Recycling (ALPAR). As the group highlights, “Since 1990, we’ve given away over two million bags to help clean up Alaska.”⁷¹ In the wake of the Exxon Valdez, a bright trash bag served as a cultural symbol to Alaskans that oil companies cared about Alaska’s environment. These efforts dovetailed perfectly with famous 1971 Iron Eyes Cody commercial and BP’s “carbon footprint” efforts—endeavors

to make individuals feel responsible for systemic environmental impacts.⁷²

Oil companies were extraordinarily invested in 57 rehabilitating their public image. They had spent tens of billions into TAPS and Alaskan oil operations, and needed to expand drilling to maximize profits. It’s no surprise the fight to drill in the Arctic Refuge reached a fever pitch between 1985 and 2005. The intensity over the ANWR battle was directly linked to TAPS, as oil boomers argued that more oil was needed to “fill up” the pipeline and extend its lifespan. Representative Don Young wrote to his fellow Congressmembers in 1987, clarifying that “development of the field can continue to supply the famous Trans-Alaska Pipeline...” According to one source, oil companies were spending as much as 50,000 dollars per week to pay for travel and lodging of teachers and other influential citizens to travel to Prudhoe Bay—in hopes of showcasing the kind of “clean” oil operations that were promised for ANWR.⁷³ It is in this context that George H.W. Bush made his remarks about Caribou loving the pipeline and having babies.

Alaska’s Republican congressional delegation 58 and President Reagan’s Secretary of the Interior claimed environmentalists were wrong fifteen years ago when they claimed Prudhoe Bay and TAPS would harm caribou, and he expected similar false claims about harm that would come from drilling in ANWR.⁷⁴ Alaskan Senator Frank Murkowski explained to President Reagan in 1986 that, “The same groups that opposed to pipeline in 1973 have already mounted an extensive campaign to designate the ANWR coastal plain as wilderness.”⁷⁵ Murkowski’s timing for this argument could not have been worse. “Twenty years ago, [environmentalists] sounded the same

⁷² Finis Dunaway, *Seeing Green: The Use and Abuse of American Environmental Images* (University of Chicago Press, 2015).

⁷³ “The Valdez Spill: What will its legacy be?”, *Audubon Magazine*, November/ December 1989.

⁷⁴ Don Young to all Congressmen, 22 January 1987. Ronald Reagan Presidential Library; *Congressional Quarterly*, 22 August 1987, “Alaskan Wildlife Refuge Becomes Battleground”.

⁷⁵ Frank Murkowski to Ronald Reagan, 17 December 1986.

⁷¹ “ALPAR Programs”, *alparalaska.com*. Url: <https://www.alparalaska.com/wp/programs/> (accessed 25/11/2022).

alarm against the Alaska pipeline and they were wrong,” Murkowski argued just three days before *Exxon Valdez* disaster.⁷⁶

59 Ultimately, national public outrage over the *Exxon Valdez* and organizing by indigenous peoples—namely the Gwich’in peoples of Northeastern Alaska and the Yukon—created widespread political support to oppose oil development in the Refuge during this period.⁷⁷ Most Alaskans were pro-oil development and favored drilling in the Refuge, but a national campaign convinced most Americans and their elected representatives that ANWR was too special, and oil development too risky, to permit drilling. For decades, TAPS and drilling in Arctic Alaska—especially the controversy over the Arctic National Wildlife Refuge—were powerful symbols in the national fight over energy conservation and development.

60 Despite the fact that the recent *Exxon Valdez* oil spill proved the single largest failure of the Trans-Alaska Pipeline System, by the mid-1990s TAPS became even more ingrained in the public’s historical imagination. In 1994, the American Society of Civil Engineers named TAPS as one of the Seven Wonders of the United States—along with Hoover Dam, the Golden Gate Bridge, Kennedy Space Center, World Trade Center, Interstate Highway System, and the Panama Canal. In 1997–8, the Smithsonian Institution’s National Museum of American History opened a public exhibit on TAPS after Alyeska offered to donate items to the museum. The exhibit coincided with the 20th Anniversary of TAPS. As historian Peter Coates observes, commemorating TAPS as an object of historical memory proved curious, since it was very much an operational system that continued to shape the present and future. While many pipeline critics objected to the exhibit and argued this kind of corporate patronage led to a clearly biased presentation, the Smithsonian had already decided

TAPS deserved to be featured in examining the nation’s historical memory.⁷⁸ In many ways this was a fitting finale for an especially rocky period for TAPS and Alaskan petroculture. Even after contributing to the nation’s worst oil spill, the nation’s flagship history museum celebrated TAPS as a technological marvel.

ARCTIC AMBIVALENCE (2000–2020)

As Alaska entered the 21st C., the State and its people entered a new petrocultural era of Arctic ambivalence. Following the low oil prices of the late 1980s and 1990s, global oil prices began rising precipitously in the 2000s and hurled Alaska onto a roll coaster of extraordinary price volatility and spasms of paltry and bloated state budgets. The Arctic climate which had molded and defined Alaskan cultures for centuries was now becoming an “angry beast”, in the words of one scientist, with fossil-fueled anthropogenic climate change.⁷⁹ The pipeline continued to remain central to Alaska’s economy and culture, but ongoing oil dependence left a growing number of Alaskans anxious about the state’s future in a rapidly warming and changing world. Alaskans found themselves the front lines of global climate change—experiencing more wildfires, coastal erosion, and permafrost thaw—yet large numbers of Alaskans remained committed to an extractive hydrocarbon economy.

By the 1990s, scientific studies cleared showed that Alaska and planet’s poles would be particularly affected by climate change. Alaskans were increasingly aware that they were on the front lines of a major climatic shift. Alaskan author Nancy Lord called this *early warming*.⁸⁰ And at one time, Alaskans showed some leadership in confronting the issue. Alaska Governor Steve

⁷⁶ Henrik Hertzberg, “That’s Oil, Folks”, *The New Republic*, 23 April 1989.

⁷⁷ Finis Dunaway, *Defending the Arctic Refuge: A Photographer, an Indigenous Nation, and a Fight for Environmental Justice* (UNC Press Books, 2021).

⁷⁸ Coates, “The Trans-Alaska Pipeline’s Twentieth Birthday”, 65–66 (cf. note 8).

⁷⁹ Spencer Weart, *The Discovery of Global Warming* (Harvard University Press, 2008), 59.

⁸⁰ Nancy Lord, *Early Warming: Crisis and Response in the Climate-Changed North* (Berkeley CA: Counterpoint Press, 2011).

Cowper commissioned a state report in 1990, *An Alaskan Response to Global Climate Change*.⁸¹

63 By the 2000s, Alaskans—who had historically scoffed at environmentalists’ concerns and sentiments—increasingly worried about climate change as their roads softened with thawing permafrost and mushers feared it was getting too warm for their sled dogs.⁸² Alaska experienced early snow melt, reduced sea ice, fiercer winter coastal storms, thawing permafrost, droughts and drier landscapes, more pervasive insect outbreaks, and more wildfires. Alaskans began to see the impacts of climate change all around them. Coastal erosion in villages like Shishmaref and Kivalina becoming a major concern, presaging the need to move the community due to rising seas. In 2006, a massive National Science Foundation poll of more than one thousand Alaskans found that eighty-one percent said that global warming was occurring, with fifty-five percent stating that they believed it was caused by human activity, including fossil fuels.⁸³

64 Many Alaskans argued the State of Alaska was partially to blame for the four degrees Celsius of warming that had already occurred in the last 40 years, since Alaska had pumped billions of barrels of oil. “Unless we do something about the use of fossil fuels,” University of Alaska Professor Gunter Weller argued in 2002, “then the climate impacts will become worse and will be a serious problem.”⁸⁴

65 A decade later, while Alaskans continued to see signs of climate change all around them, paradoxically it became even harder for the State to wean itself from fossil fuels. By the 2010s, as a concerted climate denial campaign picked up steam, larger majorities of Alaskans rejected anthropogenic global warming. The fact that some Alaskans also viewed global warming as

a favorable trend in frigid Alaska did not help the case for climate action. A few Alaskans even flaunted this view with a bumper sticker: “Alaskans for Global Warming.”⁸⁵

Mitigating Alaskan carbon emissions also 66 became harder as state revenues dwindled and pro-development Alaskans argued the State needed more oil in the pipeline. Even before the throughput on TAPS peaked in 1988 at over two million barrels per day, petroleum executives and Alaskan politicians increasingly talked of refilling the pipeline.⁸⁶ This phrase had both economic and technical meanings. “Refilling the pipeline” became shorthand for the need to drill for more oil and bring more revenue to the state. Reflecting all Alaskan Arctic oil production, TAPS experienced a precipitous decline between 1991 and 2001—from an average of 1.8 million to under 1 million barrels per day.⁸⁷ This economic situation was further compounded by technical issues as the pipeline moved less and less oil. While the pipeline was technically always full, as it moved less oil, which then flowed slower, allowing a greater buildup of wax and ice, which increased costs and reliability issues.⁸⁸ While there were countless efforts to refill the pipeline in the 2000s—most controversially by drilling in the Arctic Refuge—concerns about the pipeline’s low throughput reached a fever pitch in the 2010s.⁸⁹

The oil industry used these economic and 67 technical low-flow concerns to push for more drilling, arguing throughput could not decrease below 300,000 b/d. “If [TAPS] were a car,” former Federal Pipeline regulator-turned Alyeska CEO Tom Barrett said, “the ‘add oil’

⁸¹ Steffan, Greenlaw *et al.*, “Alaska’s Climate Change Policy Development” (Center for Arctic Policy Studies, 2021).

⁸² Spencer R. Weart, *The Discovery of Global Warming* (Harvard University Press, 2008).

⁸³ Michael Carey, “Alaska Melting”, *Dissent*, Fall 2015.

⁸⁴ Alex Kirby, “Alaska’s Oil ‘melts its ice’”, *BBC News*, 7 May 2002.

⁸⁵ Nancy Lord, *Early Warming*, 14–15 (cf. note 80).

⁸⁶ See, for instance, Rep. Don Young to members of Congress, 22 January 1987, Ronald Reagan Library.

⁸⁷ Historic TAPS throughput, <https://www.alyeska-pipe.com/historic-throughput/>.

⁸⁸ Mohamed A. Abdel-Rahman, “Resource Plays Could Help Refill Trans-Alaska Pipeline,” *Oil & Gas Journal*, vol. 111, n° 1, 2013.

⁸⁹ Philip Wight, “How the Alaska Pipeline Is Fueling the Push to Drill in the Arctic Refuge”, *Yale Environment* 360, 16 November 2017.

light would be on.”⁹⁰ Responding to environmentalists who rejected the idea that the pipeline *needed* more oil to function properly, Barrett argued that if environmentalists had gotten their way in the 1970s, “TAPS would never have been built.” In case Alaskans needed reminding about the centrality of the pipeline to their culture, Barrett spelled out that alternative reality: “Billions of dollars for schools, roads, parks and projects would never have touched the state budget; tens of thousands of jobs would never have existed; entire communities would not have flourished and grown; hundreds of Alaska nonprofits wouldn’t have benefited from industry contributions... There would be no [Permanent Fund] dividend.” Barret offered the most succinct oil industry defense of Alaskan petroculture: “The pipeline has changed the nature of our state and the quality of life for Alaskans for the better; sustaining it for decades to come is in the best interest of all of us.”⁹¹

68 Alaskan politicians walked in lock step with Alyeska. “We need to see oil in that pipeline. That’s our cash register,” Alaska’s Governor Bill Walker told reporters in 2017.⁹² Following the presidential election of Donald Trump, Murkowski and her fellow Alaskan Senator Dan Sullivan quickly put forward a bill to open up ANWR and succeeded in getting mandatory lease sales as part of the 2017 Tax and Jobs Act. Their legislation explicitly cited the increasing challenges from TAPS low throughput and the apocalyptic possibility that the, “Closure of the pipeline would shut down all northern Alaska oil production, devastating Alaska’s economy and deepening U.S. dependence on unstable countries throughout the world.” The solution for the Murkowski, Sullivan, and many other Alaskan politicians was opening the Refuge to drilling and “ensure the pipeline will continue to operate well into the

future.”⁹³ Secretary of the Interior Ryan Zinke supported these efforts and used the pipeline as a cultural touchstone for Arctic drilling. “I put my hand on [the pipeline]”, he said in 2018, “and pledged to help fill it by putting Alaskans back to work on the North Slope.”⁹⁴

69 Even more acute than climate for most Alaskans was austerity as state spending declined, state jobs were eliminated, and cuts to social programs spread throughout Alaska. Declining oil revenues, quite simply, caused a social crisis. “You have a state where oil had paid for almost everything”, reflected Alaskan economist Gunnar Knapp in 2017, “and suddenly the oil revenue – most of it — has evaporated.”⁹⁵

70 Thanks in large part due to the pipeline population boom and economic expansion of the past thirty years, Alaska’s economy and social institutions were far more mature and diversified than the boom-and-bust decades of the 1970s and 1980s. Yet without state income or sales taxes, Alaska continued to fund its government and social services primarily from oil revenues flowing from TAPS. The oil industry captured the State of Alaska not just politically and economically, but socially and culturally. Yet this capture wasn’t hegemonic: there were always Alaskans fighting for a greater share of oil wealth, fighting to protect native lifeways and subsistence, and fighting for Alaska’s wilderness, biodiversity, and ecological health. By 2020, the pipeline provided far less revenues than it ever had, yet culturally Alaskans were enmeshed as deeply as ever in the petroculture they had created. Paradoxically, Alaskans seem less able to discuss—much less realize—an economy and culture beyond oil. In

⁹⁰ Kevin Baird, “Trans-Alaska Oil Pipeline Celebrates 40th Anniversary”, *US News and World Reports*, 24 June 2017.

⁹¹ Tom Barrett, “Commentary on pipeline oil flow is flat wrong”, *Anchorage Daily News*, 11 November 2016.

⁹² Alex Nussbaum, “A pipeline built to survive extremes can’t bear slow oil flow,” *Bloomberg*, 11 April 2017.

⁹³ “Murkowski, Sullivan Introduce Bill to Allow Energy Production in 1002 Area of Arctic Coastal Plain”, *US Senate Press Release*, 05/01/2017. Url: <https://www.energy.senate.gov/2017/1/murkowski-sullivan-introduce-bill-to-allow-energy-production-in-1002-area-of-arctic-coastal-plain> (accessed 20/03/ 2023).

⁹⁴ Julie St. Louis, “Environmentalists Sue to Block Alaska Oil Leases”, *Courthouse News Service*, 02/02/2018. Url: <https://www.courthousenews.com/environmentalists-sue-to-block-alaska-oil-leases/>(accessed 20/03/ 2023).

⁹⁵ Elizabeth Harball, “Alaska’s 40 Years of Oil Riches Almost Never Was”, *National Public Radio*, 24 June 2017.



Figure 6: Aggie Creek Fire, 10 July 2015. Source: Philip Spor, U.S. Forest Service.

the 21st C., Alaskans are trapped in the political economy and society they created with the construction of TAPS.

71 More recently, the effects have climate change have only become even more acute—and no place more so than the villages eroding into the sea. As one report on climate change in the coastal village of Kivalina noted, in 2011 “The rate of climate change is no longer measured in decades, but rather in years, months, or even hours.”⁹⁶ The pace of change significantly greater than scientists expected. Alaska is no longer warming at twice the rate of the

rest of the planet, recent reports claim the region is warming three to four times faster. Ironically, climate change has also particularly affected the TAPS, as permafrost thaw, forest fires, thawing debris lodes, and flooding rivers have threatened pipeline operations.⁹⁷

TAPS is far from permanent. As Historian Peter Coates observes, it’s the only top modern engineering marvel built with plans for its own removal.⁹⁸ As part of the Trans-Alaska Pipeline Authorization Act, at the end of its economic life, the owners of TAPS are required to dismantle, remove and remediate the pipeline. Currently five billion dollars have been collected for this purpose—but these funds have not been placed in a secure escrow account and these funds may never be made available. It remains to be seen if the oil companies operating TAPS will be financially solvent at that time.⁹⁹ The end of the pipeline—whether Alaskans have access to the billions they need to dismantle and remediate TAPS—will be another cultural watershed for Alaska. In that regard, it’s worth repeating that question some Alaskans were pondering when the pipeline system first began operating: “WHERE WILL IT ALL END?”

⁹⁶ “Climate Change in Kivalina, Alaska: Strategies for Community Health”, *Alaska Native Tribal Health Consortium*, 2011, 5.

⁹⁷ David Hasemyer, “Raging Flood Waters Driven By Climate Change Threaten Trans-Alaska Pipeline”, *Inside Climate News*, 12 October 2021.

⁹⁸ Peter Coates, “The Trans-Alaska Pipeline’s Twentieth Birthday: Commemoration, Celebration, and the Taming of the Silver Snake” (cf. note 8).

⁹⁹ Richard Fineberg, “Trans-Alaska Pipeline System Dismantling, Removal, and Restoration (DR&R): Background Report and Recommendations,” *Anchorage, AK: Prince William Sound Regional Citizens’ Advisory Council*, 2004.

Bibliography

Archival and Primary Sources

Atwood Robert

“Pipeline Editorial”, *The Anchorage Times*, 1980.

Baird Kevin

“Trans-Alaska Oil Pipeline Celebrates 40th Anniversary”, *US News and World Reports*, 24 June 2017.

Barrett Tom

“Commentary on pipeline oil flow is flat wrong”, *Anchorage Daily News*, 11 November 2016.

Carey Michael

“Alaska Melting”, *Dissent*, Fall 2015.

Donoghue Brian

“Ghoulish mural gives neighbors a chill”, *Fairbanks Daily News-Miner*, 16 July 1995.

Fallows James

“Nigeria of the North”, *The Atlantic*, 1 August 1984.

Fortier Edward J.

“Alaska Pays the Pipers”, *The National Observer*, 20 September 1975.

Hopsen Eben

“On the Experience of the Arctic Slope Inupiat with Oil and Gas Development in the Arctic”, *eben-hopson.com*, 1976. Url: <http://ebenhopson.com/the-berger-speech/> (accessed 03/06/2023).

Jackson Henry

“Alaska Oil Development: International and Local Implications” (World Trade Club of Seattle: Seattle WA, 1969).

Secondary Sources

Abdel-Rahman Mohamed A.

“Resource Plays Could Help Refill Trans-Alaska Pipeline”, *Oil & Gas Journal*, vol. 111, n° 1, 2013.

Kennedy Mike

“Last Pipe Weld Seals Off a Lifestyle”, *Anchorage Times*, 5 June 1977.

Kirby Alex

“Alaska’s Oil ‘melts its ice’”, *BBC News*, 7 May 2002.

Kowalsky Jim, interviewed by Philip Wight

Fairbanks, Alaska, 26 September 2017.

McCarthy Colman

“Saved in Alaska”, *Washington Post*, 9 November 1991.

Meyers Harold Burton

“Blue-Eyed Arabs Scramble for the Riches of the North Sea”, *Fortune*, June 1973, 140-145.

Murkowski, Sullivan

Introduce Bill to Allow Energy Production in 1002 Area of Arctic Coastal Plain”, *US Senate Press Release*, 05/01/2017. Url: <https://www.energy.senate.gov/2017/1/murkowski-sullivan-introduce-bill-to-allow-energy-production-in-1002-area-of-arctic-coastal-plain> (accessed 20/03/2023).

Navarre Mike

“Fixing the Alaska Disconnect”, *Fairbanks Daily News-Miner*, 6 May 2017.

Nussbaum Alex

“A pipeline built to survive extremes can’t bear slow oil flow”, *Bloomberg*, 11 May 2017.

Patty Stanton H.

“Court Ruling on Alaska Indians’ Claims May be Crucial to Pipeline Development”, *Seattle Times*, 7 May 1970.

“Busy Senator takes time to ease fears of children in Ohio”, *Seattle Times*, 15 October 1970, A13.

PMER/ Catellovision

“Flashback to ’95: PMER, REVS and FUEL in Alaska”, *blog.vandalog.com*. Url: <https://blog.vandalog.com/2013/05/27/flashback-to-95-pmer-revs-and-fuel-in-alaska> (accessed 25/11/2022).

Rau Ron

“The Taming of Alaska,” *National Wildlife*, October-November 1976, 19-20.

Roscow James

“James Roscow talked to Alaskans About those changes. This is what he found.”, *Alyeska Reports*, 1975.

St. Louis Julie

“Environmentalists Sue to Block Alaska Oil Leases”, *Courthouse News Service*, 02/02/2018. Url: <https://www.courthousenews.com/environmentalists-sue-to-block-alaska-oil-leases/>(accessed 20/03/ 2023).

Wilson Walter K.

“Taps revisited”, *The Lamp*, Fall 1984.

Baker Rachel, Boucher John, Fried Neal, Windisch-Cole Brigitta

“Long-Term Retrospective: Alaska’s Economy Since Statehood”, *Alaska Economic Trends*, vol. 19, n° 12, 1999, 3-21.

Allan Chris

“The Brief Life and Strange Times of the Hickel Highway: Alaska’s First Arctic Haul Road”, *Alaska History*, vol. 24, n° 2, 2009, 2-29.

Baker Rachel, Boucher John, Fried Neal, Windisch-Cole Brigitta

Barrett Ross, Worden Daniel (eds.)

Oil Culture (Minneapolis: University of Minnesota Press, 2014).

Bert Melissa, Chaddic John

“The Arctic in Transition-A Call to Action”, *Journal of Maritime Law and Commerce*, vol. 40, n° 4, 2009, 481-509.

Bradner Tim

“Where is All Our Oil Money Going?” (Lecture at University of Alaska Anchorage), 9 November 2017.

Brown Tom

Oil on Ice: Alaskan Wilderness at the Crossroads (San Francisco: Sierra Club Books, 1971).

Brown William S., Thomas Clive S.

“The Alaska Permanent Fund: Good Sense or Political Expediency?”, *Challenge*, vol. 37, n° 5, 1994, 38-44.

Brubaker Michael, Berner James,**Bell Jacob, Warren John**

“Climate Change in Kivalina, Alaska: Strategies for Community Health” (Anchorage, AK: *Alaska Native Tribal Health Consortium*, 2011).

Busenberg George

Oil and Wilderness in Alaska (Washington, D.C.: Georgetown University Press, 2013).

Coates Peter

“The Trans-Alaska Pipeline’s Twentieth Birthday: Commemoration, Celebration, and the Taming of the Silver Snake”, *The Public Historian*, vol. 23, n° 2, 2001, 63-86.

Cole Dermot

Amazing Pipeline Stories: How Building the Trans-Alaska Pipeline Transformed Life in America’s Last Frontier (WA: Epicenter Press, 1997).

“40 years of writing about the Permanent Fund and its place in Alaska”, *Anchorage Daily News*, 02/09/2017. Url: <https://www.adn.com/opinions/2017/09/02/40-years-of-writing-about-the-permanent-fund-and-its-place-in-alaska/> (accessed 12/05/2023)

Cole Terrence

Fighting for the Forty-Ninth Star: CW Snedden and the Crusade for Alaska Statehood (University of Alaska Press, 2010).

Cooper Bryan

Alaska: The Last Frontier (New York: William Morrow and Company, 1973).

Coyne Amanda, Hopfinger Tony

Crude Awakening: Money, Mavericks, and Mayhem in Alaska, (Bold Type Books, 2011).

Davidson Art

In The Wake of the Exxon Valdez: The Devastating Impact of the Alaska Oil Spill (San Francisco: Sierra Club Books, 1990).

Doherty Craig

The Alaska Pipeline (Woodbridge CT: Blackbirch Press, 1998).

Dunaway Finis

Defending the Arctic Refuge: A Photographer, an Indigenous Nation, and a Fight for Environmental Justice (Chapel Hill: UNC Press Books, 2021).

Eriksen Gisle Holsbo

“From Jimmy Carter to George W. Bush: Presidential Policies and Involvement in the Debate over the Arctic National Wildlife Refuge, 1977-2009” (Master Thesis, University of Oslo, 2009).

Erikson Gregg, Barker Mitt

“The Great Alaska Recession”, *Alaska Public Media*, 12/4/2015. Url: <https://www.alaskapublic.org/wp-content/uploads/2015/06/Erickson150412-The-Great-Alaska-Recession.pdf> (accessed 20/03/2023)

Fineberg Richard

“Trans-Alaska Pipeline System Dismantling, Removal, and Restoration (DR&R): Background Report and Recommendations” (Anchorage: Prince William Sound Regional Citizens’ Advisory Council, 2004).

Gill Duane A., Picou J. Steven

“The Day the Water Died: The Exxon Valdez Disaster and Indigenous Culture”, in Steven Biel (ed.), *American Disasters* (New York: New York University Press, 2001), 277-301.

Gardett Campell, Hoffman William, Palmer Jim, Szymanski Mike

“Taking Stock as TAPS turns 40,” *Anchorage Daily News*, 27/05/2016. Url: <https://www.adn.com/opinions/2017/05/27/taking-stock-as-taps-turns-40/> (accessed 10/05/2022).

Hasemyer David

“Raging Flood Waters Driven By Climate Change Threaten Trans-Alaska Pipeline”, *Inside Climate News*, 12/10/ 2021. Url: <https://insideclimatenews.org/news/12102021/trans-alaska-pipeline-climate-change-floods/> (accessed 02/15/2022)

Harball Elizabeth

“Alaska’s 40 Years of Oil Riches Almost Never Was”, *National Public Radio*, 24/06/2017. Url: <https://www.npr.org/2017/06/24/533798430/alaskas-40-years-of-oil-riches-almost-never-was> (accessed 10/18/2022).

Harris Kenneth

The Wildcatter: A Portrait of Robert O. Anderson (New York: Weidenfeld & Nicolson, 1987).

Hanrahan John, Gruenstein Peter

Lost Frontier: The Marketing of Alaska (New York: W.W. Norton, 1977).

Haycox Stephen

Battleground Alaska: Fighting Federal Power in America’s Last Wilderness, (Lawrence: University Press of Kansas, 2016).

Herrmann Victoria

“The Birth of Petroleum Path Dependence: Oil Narratives and Development in the North”, *American Review of Canadian Studies*, vol. 49, n° 2, 2019, 301-31.

Kelly Casey

“That 70s Home: How AHFC is Trying to Update Alaska’s Aging Housing Supply”, *KTOO*, 19/3/2015. Url: <https://www.ktoo.org/2015/03/16/70s-home-ahfc-trying-update-alaskas-aging-housing-supply/> (accessed 05/03/2022)

Klouda Naomi

“Like 80s Recession, net migration turns negative”, *Alaska Journal of Commerce*, 17 May 2017.

Jackson Sen

“Alaska Oil Development: International and Local Implications” (World Trade Club of Seattle: Seattle WA, year?).

LaRocca Joe

Alaska Agonistes: The Age of Petroleum, How Big Oil Bought Alaska (North East: Rare Books, Ink, 2003).

Leepson Marc

“Alaska: 25 Years of Statehood”, *CQ Researcher*, 9 December 1983.

Lord Nancy

Early Warming: Crisis and Response in the Climate-Changed North, (Berkeley CA: Counterpoint Press, 2011).

McClure Jr. Charles

“The Taxation of Natural Resources and the Future of the Russian Federation”, *Environment and Planning*, vol. 12, n° 3, 1994, 309-318.

Manning Harvey

Cry Crisis! Rehearsal in Alaska: A Case Study of What Government By Oil Did to Alaska and Does to the Earth (San Francisco: Friends of the Earth, 1974).

Marshall K. L.

Faith and Oil: How the Alaska Pipeline Shaped America’s Religious Right (Wipf and Stock Publishers, 2020).

Medred Craig

“Reality Bites”, *CraigMedred.news*, 12/12/2019. Url: <https://craigmedred.news/2019/12/12/reality-bites/> (accessed 03/06/2023).

Miller John

Little Did We Know: Financing the Trans-Alaska Pipeline System (Cleveland: Arbordale LLC, 2012).

Mitchell Donald

Take My Land, Take My Life: The Story of Congress’s Historic Settlement of Alaska Native Land Claims, 1960-1971 (University of Alaska Press, 2001).

McCloskey Michael

In the Thick of It: My Life in the Sierra Club (Seattle: Island Press, 2012).

McNeill John R.

Something New Under the Sun: An Environmental History of the Twentieth-Century World (New York: W.W. Norton & Co., 2000).

McPhee John

Coming Into the Country (New York: Farrar, Straus and Giroux, 1976).

Miller Debbie

Midnight Wilderness: Journey’s in Alaska’s National Wildlife Refuge (Braided River, 1990).

Moss Todd

The Governor’s Solution: How Alaska’s Oil Dividend Could Work in Iraq and Other Oil-Rich Countries (Brookings Institution Press, 2013).

Ott Riki

Not One Drop: Betrayal and Courage in the Wake of the Exxon Valdez Oil Spill (White River Junction: Chelsea Green Publishing, 2008).

Redding Robert

The Alaska Pipeline (Chicago: Children’s Press, 1980).
Roderick Jack, *Crude Dreams: A Personal History of Oil & Politics in Alaska* (Seattle and Fairbanks: Epicenter Press, 1997)

Rose David A.

Saving for the Future: My Life and the Alaska Permanent Fund (Seattle and Fairbanks: Epicenter Press, 2008).

Spielman Armand, Travis Michael

The Landmen: How They Secured the Trans-Alaska Pipeline Right-of-Way (Anchorage: Publication Consultants: 2016)

Standlee David M.

Oil, Globalization, and the War for the Arctic Refuge (State University of New York Press, 2006).

Steffan Abigail, Greenlaw Stephen Arturo, Biermann Maureen, Lovecraft Amy Lauren

“Alaska’s Climate Change Policy Development” (Fairbanks AK: Center for Arctic Policy Studies, 2021).

Stemmer H.M. “Ike”

South from Prudhoe (Houston: Universal News Inc, 1977).

Sweet John

Discovery at Prudhoe Bay (Surrey, BC: Hancock House Publishers 2008).

Weart Spencer R.

The Discovery of Global Warming (Cambridge MA: Harvard University Press, 2008).

Welch Georgia Paige

“Right-of-Way: Equal Employment Opportunity on the Trans Alaska Oil Pipeline, 1968-1977” (Ph.D diss., Duke University, Durham, 2015).

Wight Philip

“How the Alaska Pipeline Is Fueling the Push to Drill in the Arctic Refuge”, *Yale Environment* 360, 16/10/2017. Url: <https://e360.yale.edu/features/trans-alaska-pipeline-is-fueling-the-push-to-drill-arctic-refuge> (accessed 05/05/2022)

Wilson Sheena, Carlson Adam, Szeman Imre

Petrocultures: Oil, Politics, Culture (Montreal and Kingston: McGill-MQUP, 2017).

Tussing Arlon R.

“Alaska’s Petroleum-Based Economy”, in Thomas Morehouse (ed.), *Alaskan Resources Development: Issues of the 1980s* (Routledge, 2019), 51-78.

REVIEWS

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Simon Orpana, *Gasoline Dreams: Waking Up from Petroculture* (New York, NY: Fordham University Press, 2021).

Abstract

Orpana's graphic novel *Gasoline Dreams* offers critical perspectives on especially the psychoanalysis of consumption of oil that reveals the illusionary nature of the pleasures and excitements of automobility and the industries that support it. The book delivers alternative imaginings by which readers can better understand the wide range of theoretical methods by which dissent can be formulated.

- 1 Much of the critical and creative work around the cultural import of oil has examined the complex ways in which it is “hidden in plain sight”, i.e., obviously central to modernity, and yet rarely a prominent element of the narrative of the forces that gave shape to it. This recoding of oil from repugnant substance to virtually veiled has enshrouded it in layers of fantasy and seductive connotations. The task of many scholars in the energy humanities has been to undo its hiddenness and to debunk its many myths as a step towards weaning ourselves off the substance and to insist, through the various readings on offer, on oil’s cultural, social, and narrative importance.
- 2 *Gasoline Dreams: Waking up from Petroculture* (2021) by Simon Orpana offers such a reading of oil’s well-concealed importance. Moreover, Orpana’s ambition is to also show the characteristics of fossil fuel culture in order to attempt to undo its hold over us. It bears similarities to Nick Sousanis’ doctoral thesis in comic form, *Unflattening* (2015). Like *Unflattening*, *Gasoline Dreams* is packed with ideas expressed in words and in black and white drawings. It consists of eight chapters, as well as an introduction, a foreword by Imre Szeman and an afterword by Mark Simpson.
- 3 The past few years have seen an abundance of work coming out of the field of energy humanities. This has contributed to the growth of cultural self-awareness which of course includes the capacity to critique the sort of energy we consume. Ironically, that which funds the perspectives offered by the humanities, more broadly, is sufficient surplus energy.
- 4 Orpana gestures towards this tension between work and compliance with fossil-fuel capitalism when towards the conclusion of the book, he suggests interrupting one’s own productivity: “if you have to work, find ways to slow it down and direct the system’s monstrous energies against itself”.¹ While a spanner in the wheel of progress might be an effective form of industrial sabotage, it is not clear how this will facilitate a widespread awakening up from gasoline dreams.
- I take more inspiration from Adrienne Maree Brown’s notion in *Pleasure Activism: The Politics of Feeling Good* (2019) in which she, like Orpana, similarly suggests an awakening. However, unlike Orpana, Brown believes in locating a source of well-being within ourselves, making us self-sufficient and less dependent on high-octane pleasures. This discovery of joyous possibility within oneself, she suggests, will translate into a joy of working towards social change, such that it might even be possible to transition to a less fuel-dependent lifestyle. Orpana comes to a somewhat similar realization in the final Chapter “The Beach” when he offers an analysis of the utopian potential of skateboarding: “In a world that has been made over in the image of cars and petroleum, street skating uses the same technologies and infrastructures to help the streets remember the beach”.²
- What is exciting about Brown’s notion of pleasure activism is that she wants to think of change through bringing about a changed subjectivity, not just an informed subjectivity. For energy humanities to continue making a contribution, it will need to move beyond the supposition that petro-modernity has somehow miraculously produced subjects that can now offer humanity a solution, an escape or an awakening from our gasoline-infused dreams, while at the same time being products of modernity, or “petro-subjects” in Orpana’s terms.³ Vanessa Andreotti’s thoughts on this in *Hospicing Modernity: Facing Humanity’s Wrongs and the Implications for Social Activism* (2021) are most helpful for questioning the validity of any solution or clever decoding that “petro-subjects” come up with.
- In his foreword to *Gasoline Dreams*, Szeman does not question the benefit or even the right of subjects of petro-modernity to correct the wrongs of petroculture: “the circumstances

¹ Simon Orpana, *Gasoline Dreams: Waking Up from Petroculture* (New York, NY: Fordham University Press, 2021), 226.

² *Ibid.*, 218.

³ *Ibid.*, 16.

we find ourselves in demand nothing less than taking up the challenge of flipping the impossible to the possible and do so with the speed of a revolution”.⁴ A key outcome of the scholarly work of energy humanities must be that this assumed “we” is effaced once and for all. Who is this “we” that can supposedly imagine themselves a way out of being hostages of petrol? How could we for one second believe that it is down to the pride and vanity of the privileged global north to once again think it can solve problems related to energy transition and global warming?

8 To his credit, Orpana includes the views of indigenuous thinkers in his book, specifically in Chapter Four “Quilting Point”, the most thought-provoking chapter. To introduce the book, however, Orpana sets the stage for what are some key concerns for him, including what he calls the “false liberation”⁵ offered by the car and the apocalyptic look and feel of a polluted Vancouver, Canada. The statement in this short introduction “This is what the apocalypse looks like, but we accept it as an everyday reality”,⁶ haunts the rest of the book as Orpana sets himself the task of discovering how it is that we have come to accept the extreme as part of mundane everyday reality. This disconnect becomes the guiding query throughout the remainder of the book, taking the author on a wild, and at times rather bumpy, ride with plenty of detours through psychoanalysis, philosophy, film theory, Marxism, and material culture theory.

9 What makes this a roller-coaster of a ride through cultural history is not just the range of theorists and material consulted, but also the higgledy-piggledy arrangement of the ideas. The eight chapters seem to eschew telling a story in a historical or logical sequence, perhaps to underline Orpana’s rejection of the logic of the highway and linear progress. That said, it nevertheless returns, compulsively even, to the troping of automobility as the emblem of freedom in petro-modernity.

10 Instead of a simply recognisable narrative sequence, each chapter includes studies of the dark heart of the petro-dependent human psyche using thick strokes of black to indicate expressivity, angst, and despair. Less dream and more nightmare. Most compelling for Orpana are concepts to do with addiction and cultural dysfunctions, layers of his text which thicken or blur the boundaries between sleep and wakefulness.

11 As noted in Chapter One (“Petroculture”) “the task of transitioning from fossil fuels, while daunting, is an opportunity to re-imagine our society and selves”.⁷ Yet, the author’s frustration is with our propensity to remain unperturbed in face of the calamity posed by global warming: “Being in flames around us, our oil-soaked culture, with all its speed, distractions and excitement, largely works to keep us asleep”.⁸

12 Chapter One contains a lengthy petrocultural reading of John Krasinki’s thriller *A Quiet Place* (2018) that focuses on the gendered association of masculinity with driving (as well as space travel) as a key dream of mobility that we subscribe to as people and nations especially in the privileged global north.⁹ Orpana’s emphasis on film gives his cultural readings a broad relevance for readers as he unpacks the human dimensions of our relationship to energy. And situating gender and domesticity within petroculture as he does here, succinctly opens up two relatively new areas of analysis in energy humanities. This raises questions regarding the similarities and differences in the ways that economies of energy and gender foster oppression.

13 Interestingly, while considering cinema, Orpana gives a fascinating petrocultural gloss on the zombie trope in popular consciousness: here, humans whose lives depend on the smelly, “decomposed bodies of past life forms” confront smelly, decomposed bodies of past humans.¹⁰

4 *Ibid.*, xi.

5 *Ibid.*, 1.

6 *Ibid.*, 6.

7 *Ibid.*, 16.

8 *Ibid.*, 23.

9 *Ibid.*, 27-37.

10 *Ibid.*, 46.

- 14 Through this reading of *A Quiet Place* specifically, and indeed throughout *Gasoline Dreams*, Orpana successfully shows that in itself an increased environmental awareness will not lead to shifts in attitudes and a decrease in energy consumption. Rather, what is required is a more clear awareness of the causal connections between the wellbeing and affordances we enjoy and the harm this brings to the environment. Orpana shows how our “entire way of life” including some apparently positive values such as “mobility, progress, productivity, freedom” rests on an increasingly unstable foundation supplied through fossil fuels.¹¹ Orpana shows that other, more sustainable, values are conveyed and kept alive through storytelling and performative practices, which is why I applaud his use of the graphic form as well as his inclusion of film analysis and his own autobiographical note in the acknowledgements section of *Gasoline Dreams* that notes that the writing process of this book coincided with the beginning of a healing process from psychological depression.¹²
- 15 Central to Orpana’s book is that the stories we tell about ourselves register, often unconsciously, key historical and contemporary manifestations and imaginings of energy. Understanding this affective narrative of energy and how it has evolved in our lives is a critical undertaking of the utmost relevance if we are to create a holistic view of the relations between energy and climate questions together with questions of social justice, gender equality and resource distribution and management. *Gasoline Dreams* dives into these fictional cinematic representations of energy subjectivity as a vital strategy in preparing for a sustainable energy transition that does not lose sight of the ethical affordances gained through the petroleum era. But we are also obliged to suspect that some of those affordances and the values they founded will not be part of a post-petroleum culture. As Orpana summarises: “we still do not know ‘human nature’, only human potentials under petroculture”.¹³
- Attending to this energy literacy allows Orpana to frame and critically examine the challenges associated with climate change on a level deeply relevant to people’s beliefs and dreams. Ultimately, the fullest significance of *Gasoline Dreams* is its potential role in transforming the energy transition into an opportunity for social reform or as Imre Szeman says in the foreword, that it be a manifesto for a revolution.¹⁴ I shall return to this question of what *Gasoline Dreams* can and cannot do later on in the essay.
- Chapter Two “Big Oily Dreams” positions the global north as the vampires of oil “sucking up more than our fair share of energy resources”.¹⁵ But unlike the vampires of the television series *True Blood* (2008–2014, Alan Ball), we are yet to find a fuel replacement such as “true blood” that satisfies our lust for energy without harming the rest of the world. Having been vampires of the world’s life blood, circumstances oblige us now to seek a more “true” form of sustenance, something less damaging to the host as well as to our future prospects. Although our use of sacrifice zones puts our extraction activities out of sight, as this chapter shows, the distance between here and there is now collapsing and once again the road and the car become an index for Orpana’s critique of petroculture.
- As subjects of petroleum, Orpana argues, we remain within the confines of a society organised around the production and consumption of oil and other fossil fuels. Both the public and private lives of human beings are circumscribed by petroculture. As Orpana shows in Chapter Three “Attachment”, energy vitally affects what we care most about. Once again, the pages reveal the car and the road as contested spaces, with Edward Munch’s figure from “The Scream” (1893) precariously placed on the highways and the ramps, his slender body also morphed into a pipeline, demonstrating the conflation between cultural expressivity and fossil fuels.¹⁶ The chapter concludes with a reading of *Easy Rider* (1969, dir. Dennis Hopper), a film that reenforced the notion

¹¹ *Ibid.*, 152.

¹² *Ibid.*, 246.

¹³ *Ibid.*, 46.

¹⁴ *Ibid.*, xi.

¹⁵ *Ibid.*, 51.

¹⁶ *Ibid.*, 85.

that modern concepts considered the bedrock of the humanities, including freedom and progress, have coevolved with the affordances supplied by, especially, the fossil energy regime.

19 Chapter Four “Quilting Point” continues the project of redefining energy in human and ethical terms. It sheds light on how energy is used defensively, to prevent the majority of the world’s population from sharing in its affordances. Without attending to these deeply human dimensions of petroleum as a quilting point suturing many (sometimes contradictory) aspects of human endeavour, any changes we make will be temporary and ultimately unsustainable. Here, Orpana imagines a “petrol gland”¹⁷ as such a point, “the juncture where the base material of petrol intersects with our hopes, fears and fantasies”.¹⁸ This point becomes the “keystone” of gasoline dream interpretation which, in Freud’s account of dreams, is not open to direct interpretation but is still understood as a dense portion of the dream from which “the dream-wish then arises”.¹⁹

20 Chapter Five presents a full display of petrol subjectivity that is powerfully drawn by Orpana to show that it is no longer possible to distinguish the consumer from the substance consumed. A petrocultural version of Frankenstein’s creature presides over a vision of despair (“it is not our lifestyles that are under threat. Rather they threaten us”), his gaze full of grief and pain and his torso either a dark bilious cloud of smog, volcanic ash, or perhaps this is a figure already transmogrified into oil or oil personified.²⁰ This page gives the reader a chance to contemplate more fully the title of Orpana’s book. Is it the dreams produced by gasoline or is it in fact that gasoline herself dreams us, her subjects? And yet on this page we also see that our predicament is also the condition for a possible reparation and rebuilding of “a world to rediscover once we embrace energy transition”.²¹

Chapter Six tackles “scenario planning” as what is usually practiced by oil companies such as Shell to propose a limited range of possible strategies to crisis none of which will upset the harmful growth-profit model they wish to maintain. As Orpana summarises, “scenario planning’s seemingly collaborative and open-ended form of storytelling helps contain, disguise and discipline discordant voices that might otherwise disturb the status quo of petroculture”.²² One take home message here is that so-called solutions to the climate crisis that do not address the problem of global inequity are merely trying to shore up the colonial capitalist system that has brought about the problems we face. The chapter opens with an imagined implementation of “stratospheric sulphur release” aimed at making the sky more reflective of heat from the sun. It does seem to avert global warming but with a concomitant instability in weather in some parts of the world and resulting protests and the need to violently suppress them. Orpana concludes that, despite the apparent success of the technology, “it would almost certainly reinforce the hegemony of the same technocratic and corporate elites who steered us into the current crisis”.²³ Orpana mounts a detailed critique of the shortcomings of Shell’s “Scenarios to 2050” which “assume the expansion of oil production as a given”.²⁴ Discussion of the financial instruments and operations that come into effect in some of these scenarios was somewhat dizzying for this reader though others better versed in the complexities of such terms as “futures contracts”, “leveragable event” and “priceable risk”²⁵ will doubtless appreciate these sections. Finally, Orpana finds more hope in the possibility of collaborative restoration among “the growing legions of wilful and reluctant exiles from petroculture”.²⁶

Chapter Seven, “Excess”, feels a little like an appendix providing a deeper historical background to expectations of endless capitalistic

¹⁷ *Ibid.*, 118.

¹⁸ *Ibid.*, 119.

¹⁹ *Id.*

²⁰ *Ibid.*, 160.

²¹ *Id.*

²² *Ibid.*, 181.

²³ *Ibid.*, 175.

²⁴ *Ibid.*, 179.

²⁵ *Ibid.*, 180.

²⁶ *Ibid.*, 183.

growth as one of the underpinnings of the climate crisis. Orpana refers to Alain Badiou's announcement that the neolithic revolution is the only real one, our current crisis being just the final working out of that breakthrough.²⁷ Key to the neolithic revolution was the relatively sudden development of agriculture and the creation of means of storing surplus produce and the associated birth of a class with control of and access to the surplus and thus with less need to work. Orpana makes clear that associated with the neolithic economy (and ours as its direct descendent) is its contrast with earlier indigenous structures especially in their support for generosity toward strangers.²⁸ Orpana cites Badiou's suggestion that we need a second over-turning in response to having reached the limits of the neolithic revolution "that would restore humanity's fundamental unity".²⁹ This chapter that began as a useful appendix on what we might term "deep economics" and that also contains a useful account of Bataille's nuanced concept of unused or unuseable surplus as "the accursed share",³⁰ also offers an intriguing though, for me, somewhat confusing detour into a psychoanalytical reading of *Taxi Driver* (1976, dir. Martin Scorsese). Having said that, I know there will be readers who will appreciate a detailed consideration of the significance for the film and for petroculture overall of the Freudian death drive³¹ along with Slavoj Žižek's updated Lacanian version of it³² together with other neo-Freudian ideas.

23 Orpana's final chapter, "The Beach", evokes the revolutionary hope associated with May 1968 via one of its slogans – "beneath the pavement, the beach" – to affirm the enduring existence of a robust, terrestrial materiality still capable, with the right collaborations, of supporting life and humanity.³³ There is a reassuringly autobiographic feel to this chapter as it recalls

Orpana's experiences of the freedom and subversiveness of street skateboarding in his hometown as a kid.³⁴ He proposes this as an activity symbolising freedom from petroculture available within its infrastructure³⁵ and contrasts its sense of community and camaraderie with the middle-class fantasy of individualism associated with surfing. At the heart of Orpana's respect for street skating is an alternative work ethic able to overcome repeated setbacks. This segues onto something akin to magic as monotonously repeated failed attempts to master a move "coalesce into a newly internalized ability to do what previously seemed impossible".³⁶ In a fascinating move, this focus on work transitions to a careful consideration of Maurizio Lazzarato's call to inefficiency and laziness as a means of refusal of petroculture's subjectivisation under the banner of productivity.³⁷ In a moment of quiet achievement, Orpana gently reminds us of his own contribution here: "comics are a terribly inefficient way to express ideas and research, from a time and energy perspective".³⁸ Nevertheless, I cannot help but admire Orpana's dogged insistence on expressing his ideas in this self-confessedly arduous and "inefficient" manner. To this I can add that ideas presented in this form demand a proportional extra effort from the reader as well! Readers will have to decide for themselves based on their own time and energy economies whether or not this way of reading is or is not in fact a labour of love of the human potential as yet unrealised under the economic regimes that have occupied our world for the past 10,000 years.

While I'm impressed with Orpana's genuine contribution towards the establishment of an energy epistemic drawn from theory and fiction, I'm not convinced that the notion of waking up from petroculture constitutes a new beginning. For me, a radical beginning implies a catastrophic ending, and so it simply is not the case, as Orpana puts it, that the apocalypses on our screens "are

²⁷ *Ibid.*, 189.

²⁸ *Ibid.*, 191.

²⁹ *Ibid.*, 193.

³⁰ *Ibid.*, 206.

³¹ *Ibid.*, 195.

³² *Ibid.*, 196 and 198.

³³ *Ibid.*, 215.

³⁴ *Ibid.*, 217-219.

³⁵ *Ibid.*, 219.

³⁶ *Ibid.*, 221.

³⁷ *Ibid.*, 225.

³⁸ *Ibid.*, 226.

disguises for things that have already happened to us”.³⁹ It seems clear that much, much worse is yet to come with the ramping up of global warming, species destruction, humanitarian crises and general planetary distress. Given the hardship of things to come, I wonder about the pleasures that petroculture has made possible. We know that oil is a finite resource. We know global stability is seriously threatened as oil reserves run out, become harder to locate, or, when located, more expensive and dangerous to exploit. What will be the consequences on our sense of well-being and the sociality that oil makes possible when we wake up from gasoline dreams?

25 Although the final page leaves the reader with the promise that “The true adventures lie

ahead”,⁴⁰ the ashen pages of *Gasoline Dreams* leave few cracks for the light to get in. On the other hand, what also seems clear is that Orpana also knows how dire the situation is and will become. In fact, notwithstanding glimmers of careful hope, Orpana’s book is largely plunged in darkness or half-light as his imagery relentlessly registers the pervasive miasma (often literally in parts per million) of petroculture and the dark dreams in which it immerses its subjects. And so I believe that a significant part of what *Gasoline Dreams* offers is an exercise in how to retain the word hope as a meaningful term while clearly understanding the immense scale of the task before us and future generations in making that happen. I look forward to Orpana’s next creative project.

³⁹ *Ibid.*, 238.

⁴⁰ *Ibid.*, 238.

Bibliography

Brown Adrienne Maree

Pleasure Activism: the Politics of Feeling Good (Chico, CA: AK Press, 2019).

Machado de Oliveira Vanessa

Hospicing Modernity: Facing Humanity's Wrongs and the Implications for Social Activism (Berkeley, CA: North Atlantic Books, 2021).

Sousanis Nick

Unflattening (Cambridge, MA: Harvard University Press, 2015).

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Abstract

In *The Wretched Atom: America's Global Gamble with Peaceful Nuclear Technology* (2021), Jacob Hamblin tackles the concept of peaceful nuclear energy by arguing that the promise of atomic energy was deeply intertwined with Western postcolonial policies and was always linked to the United States nuclear weapon industry. Based on rich archival work, the book tells the telling story of the development of atomic energy from the Manhattan Project to recent decades.

1 Based on the first line of the lyrics of *The Internationale*, the collected essays of the Caribbean island of Martinique-born psychiatrist and political philosopher Frantz Fanon were entitled *The Wretched of the Earth* in 1961. In these essays, written in the context of the Algerian struggle for independence, Fanon links the concept of mental and personal health to the impact of language on colonial power relations. The use of terminology such as “colonizer” and “colonized” creates the power relations that make colonial exploitation possible by distinguishing between natives and colonizers, according to Fanon. In doing so, the language used establishes an important condition for then transforming this distinction into a relationship of “slave” and “master”, a class distinction intrinsic to colonial domination. For Fanon, this insight prompts him to argue for a connection of the local intellectual and revolutionary elite with the lumpenproletariat, a term derived directly from Karl Marx’s description of the stratum of the population that itself lacks the class consciousness necessary to initiate a revolution, to provide punch to the broader anti-colonial revolution.¹

2 Since the publication of Fanon’s work and its first English translation in 1963, his essays have inspired a wide variety of activists, intellectuals and revolutionaries around the world. Also, historian Jacob Darwin Hamblin takes explicit inspiration from Fanon’s work in his recently published book *The Wretched Atom: America’s Global Gamble with Peaceful Nuclear Technology* (New York, NY: Oxford University Press, 2021). Already in his introduction, Hamblin acknowledges Fanon’s work by referring to his quote “they are given bouquets of flowers. Invitations. To be frank, everyone wants a piece of them”.² The framing of technological promises as “little more than a sales pitch, at best playing on naïve dreams that hundreds of years of economic evolution could be skipped and at worst providing

an in-road to other forms of paternalistic influence, leaving such countries forever ‘wretched’ or ‘damned’ to continue the structure of colonialism” by Hamblin, perfectly underpins his aim to reframe the history of peaceful atomic energy as a (geo)political and strategic constructed framework created by Western and Soviet governments, and Western-dominated international organizations, to sell the interests of these governments in forming postcolonial dependencies from countries in the Global South, but also less apparent countries like Japan and Israel, to the manufacturers of atomic energy.³

In his book, Hamblin tracks the history of peaceful atomic energy in its broadest sense, including the use of radioactive isotopes for medicine and agriculture, from the conclusion of the Manhattan Project in the detonation of two atomic bombs on Hiroshima and Nagasaki in August 1945 almost to the current decades. Hamblin’s main argument is that there actually never was such a thing as “peaceful” atomic energy. Since the end of the Second World War, the United States and the Soviet governments used the promise of civilian atomic energy as “a tool of state power” by taking “advantage of social aspirations, anxieties, and environmental vulnerabilities, especially in the developing world”.⁴ Here, Hamblin alludes to the cornucopian promise that nuclear energy would solve all kinds of future problems in the world, from sorting food shortages to offering inexhaustible energy, and from environmental benefits to making innovative future technologies possible. This promise was actively sold by the United States and Soviet governmental agencies and diplomats and was framed as an intrinsic willingness to further science and prosperity in other countries. Hamblin convincingly shows, however, how actual policies, focused on creating relations of dependency with countries in the Global South to lure them under the Western or Eastern Cold War umbrella and creating markets for selling rest products of the nuclear weapon industry, lurked under the rhetoric veil of the nuclear promise.

¹ Frantz Fanon, *The Wretched of the Earth* (London: Penguin Books, 2001).

² Quote from Fanon in Jacob Darwin Hamblin, *The Wretched Atom: America’s Global Gamble with Peaceful Nuclear Technology* (New York, NY: Oxford University Press, 2021), 5.

³ *Ibid.*, 5-6.

⁴ *Ibid.*, 6.

- 4 In the first of the three parts *The Wretched Atom* is divided into, Hamblin sketches an overview of how the promise of nuclear energy was developed by United States governmental agencies since the Second World War, culminating into the 1953 Atoms for Peace speech by President Dwight D. Eisenhower. In his speech, Eisenhower showed the world a cornucopian vision of the peaceful atom. A future of prosperity and abundance, driven by the limitless possibilities of peaceful nuclear energy, especially in medicine and agriculture. Although this speech was widely regarded a gigantic step away from nuclear proliferation and towards a better future, Hamblin argues that the famous speech actually was more a product of post-colonial developments during the previous years. Already since the Manhattan Project, the United States had actively tried to get worldwide access to deposits of uranium and monazite sands – resources needed for the production of atomic weapons. By urging countries with access to these resources, like India and Brazil, to focus on developing peaceful application of the atom in agriculture and medicine based on radioisotopes and offering their technological help and supplies of radioisotopes in exchange for uranium, the United States tried to ensure that these countries would not turn toward developing nuclear electricity or weapon production, which would need the use of uranium. In this way, the United States government wanted to both get access to strategic minerals, distract the world from focussing on threatening applications of nuclear energy, and get rid of their stockpiling amounts of radioisotopes, the waste products of the United States weapon industry. The 1953 Atoms for Peace speech was then a way to convince the world to focus on developing research based on these isotopes.
- 5 In the second part, Hamblin turns to the countries on the receiving end of the previous described policies. Here, the author breaks away from the book's main actors – the, mainly, Western governments, especially the United States' and their policies – to focus more on the actors one would expect to be central in a story referencing Fanon's work in the title. In these chapters, Hamblin does a good job showing that the governments of, often recently decolonized Asian and African states, were neither passive nor irrelevant. Many of the governments were well-aware that they were being played and kept consistently trying to get access to nuclear technologies with more strategic and technological potential, like nuclear weapons and the production of atomic electricity. Hamblin illustrates the complex and shifting attitudes towards the United States' atomic promises within the different countries by making use of some elaborate case studies, for example showing how atomic energy was used as a tool for sub-Saharan pan-African movements in the 1960s and pan-Arabism in the 1970s. In both cases, atomic weapon and electricity production were actively pursued, sometimes successfully with the detonation of the first "coloured bombs" in China in 1964 and India in 1974. These cases show for Hamblin how "wretched countries" would try to resist the nuclear extortion by the United States and other Western countries, bringing the Western governments to find new strategies for creating relations of nuclear dependencies by means of investments in uranium mining or selling nuclear power plant technologies, for example the French uranium mining enterprises in former colonized countries. In this context, Hamblin also refers again to the essays of Fanon to show that "the waves of independence" – meaning the, sometimes hard fought, decolonization projects – did not mean the end of exploitation by white people and industries.⁵
- 6 The third part returns to the main actors of the book. The United States government had to adjust their nuclear policies to the increasing access to non-United States' nuclear power plants around the world, the emerging nuclear weapon programs in countries like India and China, and the loss of access to strategic resources like oil in decolonized countries. To make sure that these countries would halt their nuclear weapon development and would stay dependent to United States' nuclear technologies, the government decided instead to actively promote their model nuclear reactors and try

5 *Ibid.*, 109-110.

to sell them to other countries, keeping them dependent on United States' enriched uranium and nuclear know-how. In this way, nuclear energy also became an asset to other geopolitical and market goals. Whether it was recouping oil money by convincing OPEC countries to buy back nuclear reactors or justifying its own growing weapons arsenals, Hamblin convincingly argues that by creating these new dependencies, Fanon was right in stating that industries and former colonizing countries would continue to try exploiting former colonized ones. In this way, the promise of peaceful atomic power as inexhaustible source of clean energy, actively promoted in United States' official rhetoric, was not at all peaceful and was actually an active act of postcolonialism.

7 Overall, Jacob Hamblin clearly succeeds in telling a captivating and empirically rich story in which he fundamentally challenges the concept of peaceful atomic energy by showing its direct ties to policies related to the United States nuclear weapon industry and the use of the atomic promise as geopolitical and strategic weapon during the Cold War. *The Wretched Atom* especially stands out in uncovering a wide variety of sources, ranging from the IAEA archives in Vienna to the CIA archives in Washington D.C., and the FOA archives in Rome. This includes sometimes, relative new sources, such as the FOA archives, combined with more commonly researched sources published in the *Foreign Relations of the United States* volumes, which are presented in a refreshing way, telling a new story of how the peaceful atom was in fact a postcolonial project.

8 By making use of these Western orientated sources, Hamblin offers us, as Western readers and scholars interested in the history of atomic energy, a mirror in which reflection we can distinguish how the cornucopian promise of inexhaustible and clean nuclear energy was from the start always foremost a rhetoric strategy to keep dominating a rapidly decolonizing world in the context of the Cold War. *The Wretched Atom* is a well-researched reflective work, forcing us to think about the status of peaceful atomic

energy. In this way Hamblin surely makes up for the explicit references to Fanon's work, in line with Jean-Paul Sartre's reflection in his 1961 preface to *The Wretched of the Earth* that "Fanon explains you to his brothers and shows them the mechanism by which we are estranged from ourselves; take advantage of this and get to know yourselves seen in the light of truth, objectively".⁶

9 Although, Hamblin also shows how the countries on the receiving end of the United States policies made up their own minds on how to deal with emerging nuclear technologies, even elaborating how the atomic promise played an important role in creating new identities for previous colonized countries, the main focus of the book clearly is on the Western strategies and rhetoric. In this way, *The Wretched Atom* is more a history of the Western promotion of atomic energy than the explicit references to Fanon's work seem to indicate on the first glance. Where Fanon by focussing on the colonial and postcolonial struggles, argued for an activist revolution to cut the ties of exploitation more severely by mobilizing the "wretched of the Earth" and by letting go of Western stories, literature and rhetoric, and re-establishing an own language, Hamblin's history is foremost focussing on the policies of the wrenching Western governments instead of mainly focussing on the psychological effects of these policies on the waged struggle to break free from colonial ties. Even when Hamblin goes into more detail on the debates in the "wretched countries", these are mainly viewed through the lens of the documents collected in the CIA archives.

10 This focus on Western sources influences the role the atom plays in the story. Although, one could argue that the atom itself is an independent actor in Hamblin's story too, given that it does play a role in creating new pan-Arab and pan-African identities, the story of the atom remains one from a Western perspective. In his introduction, Hamblin does refer to scholars in Science and Technology Studies (STS) focussing

⁶ Jean-Paul Sartre, "Preface" in Frantz Fanon, *The Wretched of the Earth*, 12 (cf. note 1).

on the characteristics of the atom as a driving force behind nuclear developments, like Itty Abraham's research on Indian nuclear energy and Gabrielle Hecht's work on the African uranium trade.⁷ In this way, Hamblin combines the fields of STS and International Relations. In *Being Nuclear* (2012), Gabrielle Hecht introduces the concept of "nuclearity", a technopolitical, geographical, personal, and temporal phenomenon that is constantly shifting and determines when something is regarded as "nuclear".⁸ By focussing on mainly Western policies and rhetoric however, these aspects only appear in *The Wretched Atom* when relevant for those policies. The geographies of uranium deposits in countries like Brazil for example, only become relevant when the United States Atomic Energy Commission recognized the existence of those deposits. The stories of the role the existence of these deposits of radioactive minerals played for the local environment and residents are not told.

- 11 Choosing his Western perspective on the role of the atom does then raise the question why Hamblin deems the atom itself "wretched", as the title does suggest. Although, the atom does play a role as actor in Hamblin's research and one could argue the atom in itself is not

knowledgeable on class distinctions, the atom mostly seems to be a tool for Western governments to exert power. The atom does not provide the "punch" for a successful revolution from the colonized countries deemed necessary by Fanon to cut all the ties between colonizer and colonized, but keeps playing its role as rhetoric promise used to accomplish colonizing geopolitical goals.

In conclusion, Hamblin's *The Wretched Atom* 12 offers a telling, and very rich, insight into the history of Western, mainly United States, policies regarding peaceful atomic energy. The book offers both a great overview of the development of Western atomic energy policies since the Second World War, and successfully contests the notion of "peaceful" atomic energy. The main contribution of the book, however, is to show how the history of nuclear energy from Western perspective is inextricably linked to the history of postcolonialism, the concept of race, and the division between "the West" and "the rest". In this way, *The Wretched Atom* will be of interest to everyone willing to learn more about the history of atomic energy, decolonization, and United States' geopolitical strategies during the Cold War.

⁷ Itty Abraham (ed.), *South Asian Cultures of the Bomb: Atomic Publics and the State in India and Pakistan* (Hyderabad: Orient Blackswan, 2010); Gabrielle Hecht, *Being Nuclear: Africans and the Global Uranium Trade* (Boston, MA: MIT Press, 2012).

⁸ Hecht, *Being Nuclear*, 15.

Additional references

Abraham Itty (ed.)

South Asian Cultures of the Bomb: Atomic Publics and the State in India and Pakistan (Hyderabad: Orient Blackswan, 2010).

Fanon Frantz

The Wretched of the Earth (London: Pinguin Books, 2001).

Hamblin Jacob Darwin

The Wretched Atom: America's Global Gamble with Peaceful Nuclear Technology, (New York, NY: Oxford University Press, 2021).

Hecht Gabrielle

Being Nuclear: Africans and the Global Uranium Trade (Boston, MA: MIT Press, 2012).