THE ANTI-FRACKERS

AN ETHNOGRAPHIC ACCOUNT OF THE SOUTH AFRICAN FRACKING DEBATE

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I confirm that I have seen/have not seen the final version of L. van der Merwe (candidate's name) dissertation and that it is submitted for examination with ~~without~~ my approval.

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ABSTRACT

This paper details an intermittent six months of ethnographic fieldwork, interviews and participant observation carried out between September 2014 – March 2015, among members of the Treasure the Karoo Action Group and three other South Africans labeled “anti-frackers” and/or “environmentalists”: a filmmaker, an entrepreneur, and an attorney. Drawing from analysis of literature, news and multimedia published outside the period of engaged research, the paper explores the contested process of hydraulic fracturing (fracking) from the perspective of those who work to ensure that this technique of shale gas extraction will not be allowed, or will be proven unnecessary, in South Africa. The dissertation details the author's attempts to understand how the binary of “pro”/“anti” is used in the ongoing fracking “debate”, and contrasts this with the work of those who have sought to craft positions that stand outside of the prevailing polemic. Tracing the stakes and interests involved in the potential for the use and sale of shale gas through a series of expeditions into the Karoo, the thesis seeks to problematize the idea that there is a fracking “debate” at hand between two collective fronts: the so-called “pro-frackers” and their opponents the “anti-frackers”. In the Latourian sense of the term the dissertation critiques the construction of these two 'phantom publics', presenting a series of nuanced personal profiles in a call for a new appreciation of the diverse human, financial and natural forces at play in this currently unfolding scenario.

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While Lesley laboured behind the scenes, there was another woman who carried out her craft very much center stage. The reader will find Jeanie Le Roux interrogated and scrutinized and praised throughout the coming pages, but it is vital to state at the outset that this ethnography simply would not have been possible without her. This work rests on Jeanie‟s warmth and welcome and assistance and availability. Over the course of my fieldwork Jeanie le Roux came to be a real friend; not only one who I could rely on but also one who I am immensely proud of and thankful for.

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CHAPTER 1:

AN INTRODUCTION TO THE PROJECT AT HAND

"There's a whole ocean of oil under our feet! No one can get at it except for me!"

- Daniel Plainview (Daniel Day-Lewis), There Will Be Blood (2009)

THE BRIEF HISTORY OF FRACKING IN SOUTH AFRICA

It was around March 2012 when the term „fracking" began to make itself a permanent fixture in South African news headlines. In a local environment of energy crisis and financial downturn, one would have had to make a very deliberate effort to ignore the fracking-related hype terms that had started to appear in reporters" collective, countrywide lexicon: it was in this month that the discovery of shale gas deposits beneath the Karoo was first heralded by Rob Jeffrey, managing director of Econometrix, as a catalyst for "transformational" and "potentially game-changing" developments in South Africa (Esterhuizen, 2012). At this time Econometrix (South Africa"s self-proclaimed "leading independent economic consultancy") had just concluded its preliminary investigation of the Karoo basin, having been commissioned to do so by the Shell Oil Company (Econometrix, 2015). The publically available closing report of this inquiry claimed that the harnessing of South Africa"s shale gas reserves, estimated to be the 5th largest in the world, could come to provide this country with an alternative combustible fossil fuel "50% cleaner than coal" (Twine, 2012). Much more than that, however, it was proclaimed in the text – and the tabloids – that the harvesting of shale gas resources would serve to resolve South Africa"s infamous energy deficit and carbon emission limit; to promote the development of infrastructure in the country; to contribute to growth in the GDP by providing jobs for locals, attracting skills and investment to our shores, and boosting the national export industry with an immensely valuable locally sourced product (Esterhuizen, 2012).

Unsurprisingly, this form of world-making and its appeal to the economically beleaguered in post-Apartheid South Africa garnered the Econometrix report much attention; not least that of the ruling party, which offered a swift, decisive response to the document. Within weeks of Rob Jeffrey"s public statement the ANC government acted to lift a nationwide embargo that had, since 2011, prohibited the practice of high-volume, horizontal, slick-water hydraulic fracturing in South Africa. It is this verbosely titled process that is more commonly and accessibly known as „fracking": currently, the extraction of shale gas anywhere in the world is entirely dependent on the technique. Shale gas – as Spence (2013) explains – exists in shale rock sediments deep under the earth"s surface: layers like those that underlie the Karoo. Its harvesting, or fracking, is achieved by pumping a high-pressure mixture of hundreds of millions of

litres of fresh water, sand and chemicals into vertically drilled wells of depths between 2000-6000 metres underground (Bishop et al., 2012). In these wells, further thousands of metres worth of horizontal tunnels channel this mixture (typically made up of 99%-99.5% water/sand and 0.5%-1% chemicals) in order to crack surrounding shale layers so as to release the gas trapped between the rock"s particles (Sovacool, 2014). This gas, once freed, is collected at the heads of wells once it has made the reverse journey along the channel pipelines to the earth"s surface (Bishop et al., 2012).

The lifting of the 2011 moratorium decriminalized hydraulic fracturing and encouraged a range of prospectors to apply for permits to investigate the Karoo"s shale resources. Across 2012-2013, depending on the choice of one"s preferred news source, the most prominent pioneer (Royal Dutch Shell) was purported to be ready to invest figures ranging from R1 billion-R5 billion into the exploration of the region, essentially carrying out a two year investigation of South Africa"s shale gas potential on behalf of the government (Forde, 2013). The limits of shale gas extraction technology determine that the most effective way to explore for fracking potential is *to* frack an area of interest. If this is not possible for any legal reason, a similarly intrusive but endorsed exploration method (such as seismic testing) must be carried out to see if hydraulic fracturing will be possible, and just how much underground gas is actually obtainable (Bishop et al., 2012). For this reason, in October 2013, the government published a set of *draft* regulations for the harvesting of shale gas. At this time the director of the Department of Mineral Resources stated that exploratory fracking of the Karoo would begin after a set of final regulations was drawn up to incorporate comment received during the draft document"s allotted period of public access and review (Vecchiato, 2013). Early in 2014, following the close of this phase, the State of the Nation address saw President Jacob Zuma confirm that “having evaluated the risks and opportunities, the final [fracking] regulations will be released soon and will be followed by the processing and granting of licences” (Forde, 2014). At this point the situation seemed clear: as far as government was concerned, fracking in South Africa was a certainty.

An interesting question to ask at that time, then, was why some people made it their very public and ostensibly very futile work to refute this inevitability and contest Econometrix"s vision for South Africa? Since March of 2012, it seemed that almost *every* official statement or news or opinion piece that promoted the looming prospect of shale gas extraction was rivaled and contested in a corresponding media release –

most often threatening counter-offensive action and most often put out by an association called the Treasure the Karoo Action Group (the TKAG). The TKAG, as can be seen on the group"s official website to this day, was responsible for government"s installation of the original 2011 fracking moratorium through a public campaign arguing that the estimated economic benefits of fracking would always be outweighed by the environmental costs of the process (TKAG, 2015). A statement on the TKAG website declares that the group is/was concerned about the quantities of fresh water required to frack (approximately 20 million litres per frack per well); the release of methane that accompanies the cracking of shale rock; the impact of fracking well pads and transport systems; and the toxic effects of 200 000 litres of radioactive carcinogenic chemicals included in fracking mixtures per well, assuming that only 1% of fracking fluid constitutes chemical content (TKAG, 2015).

In published and broadcast statements that followed Jacob Zuma"s 2014 State of the Nation Address the TKAG took up what seemed to be a new line of protest, this time around the development of fracking regulations; or rather, the lack thereof. Critiquing the fact that these regulations were yet to be made available, and that the South African public had received no idea of how submitted civic comment had affected the draft framework, the TKAG asserted that any plans submitted by exploration applicants up until that point *must* have been flawed – simply because of the non-existence of regulatory guidelines to inform their applications (Planting, 2014). In August 2014, the group went so far as to call for the enactment of a *new* moratorium; threatening to challenge government in court if this demand was not met (Planting, 2014). It was out of this threat that this ethnographic research project was born.

LITERATURE REVIEW

In 2014 the TKAG's move towards action against government – the possibility of a state vs. activist court case – seemed a significant one, coming at a time when environmental legal philosophy was (and still is) shifting, globally, to new forms of argument. In 2013, this shift was highlighted in Weston, Burns and Bollier's book *Green Governance: Ecological Survival, Human Rights and the Law of the Commons*. In *Green Governance* (2013), Weston et al. compared a series of approaches that activists around the world had recently adopted in order to secure or alter regulatory frameworks to address their particular regional environmental concerns. One such approach, successful in transforming official policy in Santa Monica, asserts the existence of "intergenerational environmental rights". This framework focuses on heritage principles included in constitutions like South Africa's own: the accepted legal idea that each generation receives a natural legacy in trust from its predecessors and holds this legacy in trust for its successors, even where law needs to be refined to ensure judicial apparatus sufficient to adjudicate/enforce this trust as a right (Weston et al., 2013). A second approach has centered on "nature's rights". "Nature's rights" campaigns have been successful in both Bolivia and Ecuador, where nature itself is now afforded the same legal footing as any recognized human individual or collective (Perreualt and Valdivia, 2010). That is, "nature" as an entity – though still necessarily represented and arbitrated by human surrogates – is granted the rights to respect for its existence, its wellbeing and its maintenance, and more (Weston et al., 2013).

In Weston et al.'s (2013) book the success of these approaches is credited to their careful design which fits them *within* the confines of existing legal systems, through the addition of new rights or the enunciation of existing constitutional principles. This is in contrast to more radical environmental campaigns dismissed for their overall challenge to and incompatibility with existing regulatory frameworks. In the context of the TKAG's threats of August 2014, the recent triumph of intergenerational and nature's rights-based campaigns in the changing of legal philosophy seemed to imply that *if* the TKAG was going to take action against the South African government for its endorsement of fracking, the group would likely be forced to shape its arguments to fit one of these approaches. This would be in order to stay within the confines of *our* existing legal system, which holds the principle of intergenerational trust within its

founding constitution, but where an actual lawsuit requires a plaintiff to prove (i) actual personal harm that can be traced back to (ii) a defendant(s)‟ harmful acts which are capable of (iii) some sort of favorable redress (Ramsay Webber, 2012).

An ethnography of how and why members of the TKAG do or don‟t subscribe to one of Weston et al.‟s (2013) highlighted approaches – and of what implications their chosen strategy might have for these existing limits of the South African judiciary – is the sort of contemporary anthropology promoted by Dominic Boyer in his essay *Energopolitics and the Anthropology of Energy* (2011). In this current era of anthropology, Boyer‟s (2011) argument was for anthropologists to use ethnography anew. In a world characterized by energy resource conflict and the imagining of alternative futures, amidst consensus on human-caused climate change, Boyer (2011) wished to see ethnographers tracing relations between emergent energy technologies like fracking, the social institutions surrounding them and the divergent political and cultural understandings of energy arising from them. This, he felt, could come to provide a new and increasingly important way “of understanding the operation of modern statecraft and political economy” (Boyer, 2011: 22). In 2013, Boyer‟s sentiments were echoed by anthropologist Kim De Rijke, who explored their significance with regard to hydraulic fracturing in the article *Unconventional Gas and Anthropology*. In this piece De Rijke (2013: 14) posited that energy transitions like the one envisioned for South Africa – from coal/petrol to shale gas – have never been simple exercises in swapping fuels but “disruptive events with the potential to remake societies in fundamental ways”. It was for this reason that De Rijke (2013: 14) called for “up, down and sideways” ethnographic contributions: monographs on governments, protesters and everything in-between, that would contribute towards an overall understanding of discursive and argumentative framings of fracking and the political economy of the process itself.

As far back as 1999, authors like Ian Scoones declared the enriching possibilities of “fruitful engagement” between anthropologists and the intertwined complexities of 21st century ecological and social dynamics. In the field of anthropological work that has emerged since this declaration, both Melissa Checker (2007) and Joshua Reno (2011) have pointed to the ethnographer‟s unique potential to uncover the sorts of evidence that inform environmental risk claims made by ecological activists, and to develop more comprehensive and accurate assessments of said risk in order to improve opposition dialogue with governmental agencies. Simona Perry (2013: 34), more

recently, has recommended that anthropologists use the process of “observing, interpreting, describing, and writing about local cultures” to highlight the “persistent environmental inequalities within communities of colour and the poor who are exposed to greater environmental hazards at the same time as they experience higher rates of poverty, malnutrition, social isolation, political powerlessness, and discrimination”. In 2014, papers by both Benjamin Sovacool and Bazilian et al. have brought Scoones's declaration to the fore, proposing and pleading fresh ethnographic and social science research agendas focused on the social impacts of new energy technologies like fracking and the contests and institutions implicated in their emergence.

What this collection of literature underlines is not just that the arrival of fracking in South Africa is something that a contemporary anthropologist should and could be interested in, but also that ethnographic research on the topic ought to venture far beyond the courtroom settings and judicial implications of potential fracking-related legal battles waged between government and the TKAG. In light of the anthropological imperatives that have materialized since Scoones's identification of the possibilities of “fruitful engagement”, the TKAG itself – as an NGO that has emerged in response to the declaration of fracking as a South African energy future – stands as an ethnographic curiosity in its own right. From the perspective of a discipline that Mafeje (1979) has infamously criticized for its Apartheid and colonial-era complicity in the reification of non-existent homogeneities in particular population groups, the popular assimilation of the TKAG's members into a seemingly universal collective referred to as the “anti-fracking” movement also appears worthy of ethnographic interrogation.

There is an extensive body of literature which demonstrates that the TKAG's qualms about the detriments of fracking are echoed both locally and globally, and have been for a long time. The health and environment-related damage that the TKAG has expressed apprehensions about has been documented in courts of law (Pearson et al., 2013), in film (*Unearthed*, 2014; *Gasland*, 2010), in social and environmental science journals (Vengosh et al., 2014; Jacquet, 2014; Small et al., 2014), and by other NGOs (Ridlington and Rumpler, 2013; Union of Concerned Scientists, 2014) internationally. A paper by Evensen et al. (2014) shows that in the USA, the side-effects of shale gas extraction are asserted even as the process is carried out on a near-countrywide scale. There, a recent US geological survey (Petersen et al., 2015) has pointed to a new link between fracking and the massively increased prevalence of

earthquakes: the well-dense state of Oklahoma has a current earthquake rate 600 times higher than its pre-fracking rate. This year, a book titled *Global Resistance to Fracking* (Rodriguez, 2015) has gathered the stories of "communities rising up to fight climate crisis and democratic deficit" from Canada to Argentina to Spain, including an account of the TKAG"s work in South Africa. *In* South Africa, other groups such as the Climate Justice Campaign have received newspaper coverage on their own protests against the legalization of fracking (Maditla, 2011), while political economist and sociologist Dr David Fig has published widely on his predictions of health and environmental damage that will accompany fracking (Williams, 2014).

In light of these local and international accounts, what *does* appear distinctive in the TKAG"s campaign against fracking is the group"s consistent open critique of the ruling party"s civil consultation process and the completely unpaid volunteer nature of their work. In 2013, Jonathan Deal – founder and CEO of the TKAG – was flown to the United States to receive a well-publicized Goldman International Environmental Prize (affectionately known as a "Green Nobel") for his work in South Africa. With the prize came a three million Rand purse, and in a Cape Argus interview following the awards Deal expressed his intention to use this money to "pay the staff of the TKAG" who had, until that point, volunteered "for two years without a salary" (Yeld, 2013). Read in conjunction with Dimiter Kenarov"s *Unlikely Dissidents* (2013) – an account of how a dairy farmer in Pennsylvania, a border customs clerk in Romania, a geologist in Ohio and a farmer in Poland all came to be effective opponents of fracking in their own countries – Yeld"s interview and Rodriguez"s *Global Resistance to Fracking* give the impression that those who resist hydraulic fracturing are widely varied, mostly unconnected individuals with differing motivations, divergent goals and diverse methods of action: widely dissimilar people few and far between, with little in common except for a desire for fracking to be prohibited, for whatever reason.

This is the very opposite of the impression created by local journalists like Ivo Vegter, who has published several articles critiquing the "myths and propaganda" spread by members of a cohort he refers to interchangeably as the "anti-fracking activists", "green activists" and/or "radical environmentalists" (Vegter, 2013; 2015). Since 2011, these labels have become increasingly popular terms of reference in South African news and media for – as above – *anyone* who opposes the procession of fracking, for whatever reason, and through whatever means. As such, and as can be seen in a

wide range of news articles by Vecchiato (2012), Forde (2014), McWilliams (2012), Reader (2013) and Ndweni (2014), unconnected groups and individuals – including but not limited to the members of the TKAG – are portrayed to be like-minded and similarly equipped parties who would rather see the preservation of South Africa's ecology than the progress of the country's economy. This is by no means an exclusively local phenomenon: the Control Risks international consultancy group released a press brochure in 2013 titled *The Global Anti-fracking Movement: What it Wants, How it Operates and What's Next*. The content of this manifesto – which warns of the structure, methods and trajectory of the "anti-frackers" as an international legion – is illustrated with examples from the Ukraine to India. In these separate studies, the document serves as sufficient indication that the idea of a united "anti-fracking" movement has been made prevalent wherever fracking is and wherever it is resisted.

What the "anti-fracking movement" is reported to come up against, wherever active, is the similarly named counterpart that Davis (2013), Cropley (2013), Bega (2015) and countless others have called the "pro-frackers". In these sources, the dominant depiction of "pro-frackers" is that of parties angling for fracking to go ahead, also for whatever reason, but predominantly for the sake of the development of economy: the apparently opposite end goal of all "anti-frackers". In South Africa and globally, the clash of these contrary objectives and the two collectives that bear them – including the standoff between the TKAG and the ANC government – has been discussed ubiquitously in news and media as the fracking "debate". Reference to this "debate" is also present in contemporary engineering journals (Botha and Yelland, 2011), medical journals (Mash et al., 2014) environmental and energy policy journals (McGowan, 2012; Cotton et al, 2014), and security review journals (Warren, 2013). In these various sources of public knowledge, the term "debate", alongside the accompanying and implicit ideas of two distinct and all-encompassing fracking-related lobbies, can be seen to generate a very tangible duality in discussion and analysis of hydraulic fracturing technology as a South African energy future. The argument of this thesis shall be that this binary, the "debate" and the fronts it encompasses are non-existent, politically useful notions in the same sense that Mafeje (1979) once identified: labels and devices that hide the true range of divergent and heterogeneous interests, values, voices, capacities and stakes involved in the potential for fracking in South Africa.

QUESTIONS, AIMS AND OBJECTIVES

This thesis sets out to answer two central, interrelated questions, emergent from the literature discussed:

1. Who are the people identified as South Africa"s most influential “anti-frackers” or ”environmentalists”, and how do they position themselves in relation to these labels?

2. Where do the objectives, strategies, actions and motivations of these “anti-frackers” overlap or deviate, and to what effect?

The primary aim of the dissertation is to understand what the prevalent notion of a fracking “debate” between homogenous “pro” and “anti” fracking sides serves to conceal, how it achieves this camouflage and why.

The purpose of the paper is to provide perspective on the difficulties faced by South Africans challenging government and multinational corporations within the limits of existing environmental law; and to explore the critique of this challenge as a tainted form of activism for the privileged.

In the context of the recent legal interventions in Santa Monica, Bolivia and Ecuador, this thesis intends to facilitate and expand the current mode of dialogue between the South African government and the population that stands to be directly affected by fracking, should it go ahead.

The dissertation encourages future ethnographic work around the topics of hydraulic fracturing and other emergent and alternative energy technologies: increasingly important and relevant concerns for all academic disciplines of this era known as the „anthropocene“.

RESEARCH METHODS AND PARTICIPANTS

The primary subject of this thesis is the TKAG, by virtue of the organization's key role in the fracking contestations unfolding in this country. Recruitment of participants beyond the group – the other "anti-frackers" whose names and stories appear in this dissertation – was achieved through an open-ended, multi-sited approach to fieldwork, reliant on research into figures famed as "anti-frackers" in South African media and on snowball sampling made possible through the recommendations and associations of Jeanie le Roux, Director of Operations (DOP) of the TKAG. The majority of the intermittent six months of ethnographic research that gave rise to this paper was spent in the close company of Jeanie le Roux, who approved and welcomed participant observation of her group in the early stages of this project's formulation in 2014.

Fieldwork took place between September 2014 and March 2015. The duration of research was made necessary by what was discovered to be the sporadic nature of engaged "anti-fracking" activity, and the constant mobility that this activity entails. Punctuated by several overnight trips to various sites in the Karoo, many weeks of research demanded a daily commitment to fieldwork while others required little time or ethnographic action. Research, simply, occurred when and wherever Jeanie or other research participants' own activities transpired and where a researcher's presence could be accommodated: at the TKAG office in Bellville; in Karoo towns like Prince Albert and Nieu Bethesda; at Jackal & Hide pub in Cape Town; and at Canal Walk shopping centre, to give some idea of the surprising diversity of locations involved.

The chief mode of research in and out of these field sites was participant observation in the most classic sense: what Kawulich (2005) has defined as the process of learning about the activities of people under study, in their natural settings, through observing and participating in those activities and writing detailed field notes about them. Complementing this method was the continued conduction and audio recording of informal and formal interviews. At times and in contexts where participant observation was not possible, for consideration of informants' own time and schedule demands or in situations where mere days or weekends were spent in certain locations, interview research came to stand as the only available research method. In this dissertation only two such interview profiles have been included, as a result of the interviewees' status as particularly high profile South African "anti-frackers".

ETHICAL CONSIDERATIONS

From the moment of this project's conception, a distinct unease has accompanied the processes of fieldwork and writing that have produced the present ethnography. The trepidation is one well articulated by Eva Berglund (2001: 318), who once observed the "significant hesitation in anthropology's engagements with environmentalism, including an anxiety that its accounts are more likely to be co-opted by the politically conservative than by the morally virtuous". In the context of the South African fracking "debate", a lingering concern was (is) that an ethnography that exposes the struggles and complexities of the lives of those standing in the way of hydraulic fracturing may all too easily end up a welcome gift in the hands of those seeking to overcome or eliminate such opposition. Following Anthropology Southern Africa's (2008) recommendation that ethnographers incorporate informants' interests and concerns into the structure of their research projects, this ominous possibility was discussed with all participants who now appear in this thesis. Through regular conversation, begun during the ethnography's initial stages of formulation and correspondence with Jeanie le Roux, two implementable strategies were identified to alleviate concerns around undesired co-option. Both strategies draw from ASNA's (2008) ethical recommendation to ensure that anyone involved in ethnographic research is not made more vulnerable by the work, and rather stands to benefit from participation.

The first strategy is straightforward: those who participated in this research were offered the choice to remain anonymous and, during writing stages, to review their inclusion in this paper (if requested). As such, every real name or title displayed in these pages appears with the permission of the person or group concerned, and every pseudonym has been asked for. Each individual whose comments, actions or opinions have come under scrutiny provided informed consent and was offered the opportunity to assess or alter this thesis and withdraw involvement before publication.

The second strategy is more complex, and aims to replace the ethnographic tendency to write *about* research participants with an attempt to write *alongside* them. The goal in this regard, following Checker (2007) and Reno (2011), is to have produced an ethnography which might strengthen and stimulate dialogue between those engaged in "debate" with government; which ensures that those "anti-frackers" who appear in the thesis are aware of what the others on their apparent side of the "debate" are

actually concerned with and working towards. At its core the ethnography attempts to document the common challenges faced by those opposing fracking in South Africa and to provide a point of reflection on the different voices, interests and capacities engaged in dialogue with the government. This is with a view to assisting in the facilitation of the issues at hand in the currently ongoing fracking “debate”.

The approach foregrounded is one informed by Melucci‟s (1989: 25) call for anthropologists to discover the plurality of perspectives, meanings and relationships which crystallize in any given collective action and to recognize the ambivalences and heterogeneous agendas present within such action. In Charles Hale‟s (2006: 96) sense of the term the sort of work that has gone into this thesis could be considered “activist” research, in that fieldwork emphasis has been placed on the „participation‟ aspect of participant observation: an attempt has been made to establish alignment with a cohort of people, to accompany them on the path towards their goals and to allow dialogue with them to shape each phase of the ethnography. Hale (2006: 105) has argued that “to align with a struggle while carrying out research on issues related to that struggle is to occupy a space of profoundly generative scholarly understanding”; and it is in solidarity with Hale‟s position that this thesis proceeds with no deliberation on researcher choices between detachment and identification. For Melucci (1996: 395), this choice is “itself a conundrum which is based on a false dichotomy and misrecognition of the role of social investigation”. In this sense the dissertation may even be read as an “engaged” anthropology so far as that the research is a part of the world it is describing and to the extent that it involves personal interests and responsibilities, including a responsibility to enable those researched to contribute to – but also learn from – the ethnography (Melucci, 1989).

At the bi-annual sitting of the University of Cape Town Social Anthropology Ethics Review Committee in 2014, the first proposal to proceed with the ethnography outlined in this introduction was misinterpreted as a desire to embark on a planned investigative study of *activism* as a general category. There were a number of factors at play in this misunderstanding, including the complicated caveats of the noted ethical concerns and stratagems and the misleading title of the draft proposal “The Shale Gas Revolution: An Ethnographic Investigation of „Anti-fracking‟ Activism”. The purpose of mentioning this misunderstanding here, however, is not to deconstruct the causes or additional contents of the proposal rewrite that the Ethics Committee subsequently

deemed necessary, but to explore one pertinent implication of this restructuring. In the revised and accepted proposal that eventually allowed the procession of the research that has produced this dissertation, it was required that I, as the researcher, restate my abovementioned engaged alignment with the TKAG as a *personal* ideological stance against fracking. I was obliged to proclaim that this personal standpoint would unquestionably colour and define subsequent ethnographic interpretations and writings – writings which I should always state would be in no way representative of disciplinary or institutional imperatives.

At that stage, stating that I had „gone native" as an "anti-fracker" was an extreme amplification of an attitude and perspective I was *assumed* to harbour because of my choice of literature and method and the positionality of my chosen research subjects within the context of the fracking "debate". It appeared, no doubt, that I had chosen to enter this "debate" from a very decided angle rather than on any sort of neutral middle ground. What I intend to demonstrate now, in this paper, is that this idealized middle ground *simply does not exist*: as Finewood and Stroup (2012) have argued, it is an illusory position that never has been attainable in this situation and never will. Over the course of the pages to come the reader will find that fieldwork did indeed bring me to occupy a position whereby I would protest to fracking taking place in this country, but not because I neglected to take an attainable neutral position or because I embarked on my ethnography as a tunnel-visioned "anti-fracker". Quite the contrary: I have taken this stance slowly, steadily and not for the assumed "environmentalist" reasons explored in this paper. I have taken this stand because, as this thesis will show, I simply *had* to.

OVERVIEW OF THE THESIS

The next chapter of this thesis serves as an introduction to the TKAG and the woman who acted as this paper's chief informant: Jeanie le Roux. The chapter examines Jeanie's role and impetus as Director of Operations of the Treasure the Karoo Action Group, offering insight into the organization's past and future trajectory and detailing the unexpected forms that regular daily work takes within South Africa's most famous and consequential "anti-fracking" group.

Chapter three constitutes an assembly of numerous personalities and efforts mobilized in opposition to the possibility of fracking in South Africa. The chapter is presented as a series of personal profiles and portraits of the local "anti-frackers" unaffiliated with the TKAG, and explores the related significance of one particular journey taken into the Karoo during the course of fieldwork.

Chapter four draws from the theoretical framework put forward in Finewood and Stroup's paper *Fracking and the Neoliberalization of the Hydro-social Cycle in Pennsylvania's Marcellus Shale* (2012) and Bruno Latour's book *An Inquiry into Modes of Existence* (2013) to introduce the paper's theoretical framework, encasing and explicating all ethnographic observations and personal profiles presented in chapters 1, 2 and 3. This final section of the thesis sets up the problematization of the "pro" and "anti" fracking labels, reviewing findings and literature presented throughout the paper in an attempt to reframe the fracking "debate" taking place in this country and to recognize the heterogeneity of the stakes at risk in this contestation.

CHAPTER 2:

THE TREASURE THE KAROO ACTION GROUP, OTHERWISE KNOWN AS JEANIE LE ROUX

"There is earth below your earth, a deep room where gas and oil, rock and stone, circulate like slow blood through a body."

- Matthew Henderson, The Lease (2012)

THE TKAG, OFFICIALLY

Jeanie le Roux relies on a handy Nestle analogy when discussing shale rock and its gas content: she likes to think of the sediment as an enormous Aero bar buried somewhere between 4-6km underground. In my six months under Jeanie‟s wing at the TKAG, I too have come to equate fracking and chocolate, imagining each tiny Aero bubble to be filled with a gas meant to supply fuel and income to South Africa in abundance. To gain access to this gas, shale rock – the inedible Aero deep under the earth‟s surface – needs to be penetrated in such a way that the walls that separate bubbles are cracked and that the combined pressure of newly created passageways will force the gas contents up and out of them. The depth and density of this rock determines that the pressure is very high – once fractured, a lot of shale gas starts to migrate upwards very quickly. This is not what is known as „conventional‟ gas drilling, where one vertical ground surface well provides sufficient channel to collect the gas (De Rijke, 2013). It is the „unconventional‟ kind, where a single well is not enough to stay ahead of the gas escape, and neither are simple direct-down vertical drill shafts.

What fracking requires in a region of interest is the establishment of numerous ground surface wells, each capping vertical shafts which become horizontal at the shale level (De Rijke, 2013). Multiple entry and collection points are necessary to keep up with gas migration and each shale fracture is achieved by using pipe-encased tunnels to shoot around 20 million litres of water at and through the rock at an incredibly high pressure – more than 4000 pounds per square inch (De Rijke, 2013). This water is not unaccompanied: around 200 000 litres of the total fluid quantity is a mixture of sand material and chemicals intended to aid the process, with each fracking company maintaining the right to keep the contents of its patented mix confidential (Bishop et al, 2012). As a means of access to the planet‟s most valuable Aero, the act of hydraulic fracturing has been outlawed in more than 100 locations around the world: in places ranging from Scotland to Germany, Bulgaria, France and the state of Maryland, where fracking was recently declared an “ultrahazardous activity” by Senate (Geiling, 2015).

For Jeanie le Roux, Director of Operations of the TKAG, the reasons for which these numerous bans have been put in place are a powerful justification for her and her group‟s opposition to fracking in South Africa. The TKAG‟s extensive but not uncommon list of grounds for objection on these shores, already mentioned in this

paper's literature review, spans the documented air pollution caused by fracking wells' uncollected gases; the water contamination and soil degradation seen to have been caused by escaped and remnant carcinogenic chemicals in fracking fluids; the use and loss of millions of litres of fresh water in fracks; and the grave and severe impacts of all of these factors on human health, animal and plant life and agriculture, especially pertinent for a water-scarce area like the Karoo. Fracking itself is just one part of a broader process that Jeanie and her organization are concerned about, which Boudet et al. (2014). have summarized as including the clearing of natural vegetation for the construction of well pads, access roads and infrastructure; the transport and processing of extracted gas; the transport of water and wastewater for treatment and disposal; the need to accommodate large transient working populations around well pad areas; and the well graveyards left after shale gas supplies have been exhausted.

Barring Jeanie's useful Aero analogy, all of this information about the TKAG's "anti-fracking" rationale is already publically available on the group's website, which also contests Econometrix's version of the trickle-down economic benefits of hydraulic fracturing, disputes the number of jobs that will be created for South Africans through shale gas extraction, and condemns "the lack of cohesive, broad and inclusive government consultation with the various stakeholders in South Africa" (TKAG, 2015). Since formation in 2011, this – the TKAG's official, collective stance – has brought the members of the group much success in their quest to prevent hydraulic fracturing taking place in this country. In the passage below, Jeanie le Roux lists a few of the organization's most significant achievements:

> JEANIE: What we're doing is… we're focused on accountability… if Shell lies we take them to court. We've taken them to the advertising standards authority; we won that case against them.
>
> LAWRENCE: What? What case was that?
>
> JEANIE: In 2011, around the statements they were making. They were handing out flyers with misleading and untruthful statements around fracking… that there's never been any proven case of contamination… the usual stuff… so we laid a formal complaint with the Advertising Standards Authority. They ruled in our favour and Shell was ordered to withdraw their statements and pamphlets and stuff. We've had to sue the Minister of Minerals… because she failed to provide us with information on the task team that she formed on shale gas. We won that as well… even if you take away fracking from what we're doing, then we're scrutinizing government and the applicants as well… we have a whole paper trail going back four years, and obviously just our brand: the fact that we are recognized as *the* anti-fracking organization in the country.

Back before it was recognized as "*the* anti-fracking organization in the country", the TKAG (in conjunction with a range of partners, including UCT professor of law Jan Glazewski) was also responsible for government's installation of the very first

moratorium on shale gas extraction – the one lifted after the release of the 2012 Econometrix report. When the first fracking applications came in to South Africa, Jonathan Deal's group delivered to parliament a critical review of Shell's original environmental management plan (EMP): a tool "used to ensure that undue or reasonably avoidable adverse impacts of the construction, operation and decommissioning of a project are prevented and that the positive benefits of the projects are enhanced" (Lochner, 2005). The contents of this review resulted in government halting the fracking application process while it assembled the task team intended to develop regulations for hydraulic fracturing – the same task team the TKAG later sued the Minister of Mineral Resources over, and the same regulations that the TKAG have since critiqued government for developing without proper public or stakeholder consultation.

As a volunteer, non-profit, non-governmental association, the TKAG has been given the life needed to accomplish its various feats by the organization's members; none of which appear more important in this enactment, presently, than Director of Operations Jeanie le Roux. The premise of this thesis, however, has always been that an apparently shared position on fracking – even one that has proven as successful as the TKAG's – would inevitably be driven by an assortment of individuals prompted by diverse personal motivations. In the half a year spent observing and participating in the TKAG's daily work, it was Jeanie who came to demonstrate this hypothesis beyond doubt. Jeanie's ever-presence proved to be *the* single permanent feature of a continually fluctuating cast of volunteer colleagues responsible for the TKAG's functioning. It is the exploration of this singularity – in the section to come – which confirms that there is much more to the TKAG's impetus than any official standpoint or collective "anti-fracking" label has ever been able to encapsulate.

THE TKAG, UNOFFICIALLY

JEANIE: Ja, but TKAG [she pronounces the acronym as „tea-cag"] *is* my full time job…

The above is a quote taken from one of my many informal interviews with Jeanie le Roux, this particular one conducted from the passenger seat of her blistering hot car somewhere along the road from Cape Town to the town of Prince Albert, on a long journey we took towards the warm end of 2014 when the TKAG was invited to give an address formally opening the Prince Albert Agricultural Show. At the last minute the original invitee Jonathan Deal – CEO and founder of the TKAG – had become unavailable, asking Jeanie to take his place as speaker in a town which finds itself firmly embedded in the spread of South African territory that global contenders have applied to frack. Thus it was that on the 40°C Friday that the Agricultural Show opening took place, Jeanie, another colleague and I made a six hour voyage in order so that that evening, amidst catcalls and whistles from male members of the hundred-strong audience, Jeanie could deliver a calm and impassioned (yet very nearly completely unprepared) address of the TKAG"s key qualms about hydraulic fracturing.

Despite her blatant objectification as a young woman, or perhaps partly because of it, Jeanie"s speech was received with rapturous applause. The crowd"s support for the TKAG"s stance was overwhelming, with our exit from the event being delayed by nearly an hour by the throng of people wishing to express their thanks to Jeanie for her work and her talk. The next morning we were taken out for brunch by one of our voluntary overnight hosts to meet an even further range of interested Prince Albert residents, which meant that our traveling party only arrived back in Cape Town on Saturday evening. The entire trip had taken a total of two whole days, requiring all willing travelers to drop everything and go, and to pay for a weekend"s unplanned petrol and food expenses out of our own pockets. The expedition had been demanding, but as far as I could tell it had been worthwhile: it seemed to have generated a whole new body of support for the TKAG, or at least to have renewed the enthusiasm of those Prince Albert residents who were already backers of the group.

As the weeks after the Agricultural Show passed, I waited with confident optimism for the donations and pledges of help to start rolling in. Strangely, Jeanie didn"t seem too excited. In time I learnt why: nothing ever came. The support that Jeanie"s speech had stirred up that weekend simply did not translate into one direct or material contribution

to the TKAG, either in the form of money or new volunteers. This, for Jeanie, was all too familiar; something she later identified to be the hardest part of her work:

> JEANIE: …what is it that you need to be turning it [support] into to make an impact? We say, you know, we're looking for 2000 people to donate R50 a month each and if they would be so kind to just talk about us and the work we do and the fact that we need funding and support in their circles we'd appreciate it. But then, you know, nothing ever happens. Like for example in Somerset West… there were about 30 people… by the end of the night I asked by a show of hands who of them were concerned about fracking and concerned enough to feel that they want to do something about it. And almost the whole hall raised their hands. And then I started telling them what it is we need people to do… talk about it… inform people… contact us for info… donate monthly… nothing. Not one donation. Not one donation. I don't know if we should make it easier for them to donate… or go for selling stuff… I honestly don't know what to do…

In the interview excerpt above, Jeanie was making use of the term "we" to indicate to me that the struggle to turn ideological displays of support to the TKAG into a tangible resource – in the sense of finance or manpower – is one that Jonathan Deal faces, and has always faced, as well. As Deal's Goldman Prize interview showed, the TKAG has always been an organization financed by the association's members themselves: before the Goldman Prize the group's chief source of capital had been Deal's own retirement fund, and since the Prize, Jeanie and her colleagues have had to finance their personal involvement and rely on what public donations they *can* accrue to keep the TKAG going. Just in my time with the group, Jeanie set up a variety of campaigns intended to supplement the TKAG's capital base through public contributions and sponsorships. Apart from the verbal pleas she and Jonathan made at events like the Agricultural Show and in newspaper, radio and TV interviews, Jeanie had a part in setting up a public SMS donation line, organized a series of radio commercials with South African musicians that have not yet aired, hosted a demonstration on the University of Western Cape campus, and personally applied for a series of local and international NGO/NPO funding programs. All of this while single-handedly maintaining the *chase SHELL OIL out of the Karoo!* Facebook page (current membership: 12 954), *and* keeping up correspondence with the thousands of people worldwide who have submitted their contact details to be kept abreast of TKAG news.

As part of my participation in the group, I had a role in adding a recent backlog of names and numbers to the TKAG's enormous digital catalog of subscribers. Like the Agricultural Show, this database and the Facebook body of support (which boasts some *very* passionate regular contributors) again surprised me in their lack of translation into useable TKAG resources. More than that, spending hours typing up Microsoft Excel spreadsheets drove home the reality of just some of the time and

energy that Jeanie‟s position requires – barring unexpected trips to Prince Albert, the *chase SHELL OIL out* page alone sees upwards of 20 public postings demanding moderation and response per day. In this sense, the administration involved in sourcing the TKAG‟s revenue and public support could easily be considered a “full time job” just in itself: even an extraordinarily demanding one. But work at the TKAG is simply *not* a job as Jeanie described it: it doesn‟t pay (in fact it only incurs personal costs), its hours far exceed those of the typical 9-5 position, and the call of duty can come at any time of day or night. As a result of the lack of funding, there isn‟t even an office to work out of. If TKAG members are not together at events like the Agricultural Show, meetings take place at cafes, pubs and malls around Cape Town, and sometimes Jonathan Deal asks to convene at his farm two hours out of the city.

Work itself, which of course extends far past funding administration and public speaking, is carried out at these locations but mostly from home. There is a need for Jeanie et al. to use their hours away from meetings and group commitments to stay up to date with emerging global research on shale gas and its extraction and opposition, and to feed this into the formulation of present and future responses to developments in local government‟s processing of fracking regulations and applicant licences. In this formulation, the TKAG‟s partnerships with local organizations are significant factors to consider – both in terms of the alignment of goals and resources, and for the supplementary time and energy demanded in the preservation of these relationships. One such alliance is maintained with The Cancer Association of South Africa (CANSA) on the grounds that the CANSA group, according to an official media release, is “concerned about reducing the cancer risk from potential spills and incidents releasing toxic chemicals into the Karoo environment that could make drinking water aquifers dangerous to consume” (CANSA, 2015). So far as that neither CANSA nor TKAG have pooled any resources in their coalition thus far, and that CANSA‟s interest is purely in implementing transparent public testing of the pre- and post-fracking quality of Karoo water, this is a highly specific and purely nominal working relationship.

The nature of the TKAG/CANSA affiliation is very different from the critical partnership that the TKAG shares with AfriForum, a controversial civil rights organization that sustains “a specific focus on the rights of Afrikaners as a community” (Afriforum, 2015). It is AfriForum‟s legal team that will make all autonomous decisions on the rights-based approach to any future litigation the TKAG brings against government:

> JEANIE: AfriForum has got an in-house legal firm that does work for them and they are very successful. AfriForum"s members… a lot of them are farmers… and anything relating to environmental degradation immediately becomes a Constitutional issue, Section 24 of the Constitution, so as a civil rights organization it affects them as well… so they are providing the attorneys and they will cover the costs of going to court, but… the research, preparation, co-ordination, falls on our shoulders. We have the knowledge… we provide them with the context… background, correspondence from government and everything.

That Jeanie"s group is dependent on another NGO to realize their own threat of a future legal challenge to government is unsurprising when the TKAG"s resources and its members" lack of necessary legal qualifications are taken into account. What *may* invite curiosity, and fairly so, is their choice of collaborator: AfriForum announced itself in South African press as an association that endorsed Steve Hofmeyr, an Afrikaans singer described as a "disgrace to South Africa" by the South African Institute of Race Relations (Cronje, 2011). It is also a group that has recently insisted that the "Marikana miners should also be prosecuted for slain officers and guards" (Raborife, 2015) and that "transformation equals race discrimination" (Mtakati and Wesi, 2015). It is for this public positioning that AfriForum has come to be described in various media as an institute that sets out to "develop and enhance white victimhood" (Poplak, 2014), and "an organisation that fights for the preservation of white privilege" (De Vos, 2014).

Clearly, none of this has been enough to discourage Jeanie and Jonathan from involvement with the group. It"s not that Jeanie is unaware of AfriForum"s reputation either, so much as she just doesn"t care about it: with little to no resources at her disposal, as far as forging alliances goes the Director of Operations of the TKAG is openly looking no further than fracking concerns. In all the time I spent with Jeanie, I was in equal parts troubled and impressed by her myopic ability to focus only on whether potential and current partners are willing to help stand in the way of fracking and what assistance they can lend in that regard. Supporters" opinions, values and ideas unrelated to hydraulic fracturing need not align with Jeanie"s own; which in the case of AfriForum, they certainly do not. In this sense, the entire scenario appears deeply complex and intricately intertwined. It seems to me that the TKAG"s success in almost single-handedly preventing fracking thus far – the group"s aforementioned reputation as "*the* anti-fracking organization in the country" – may actually be an underlying, counterproductive reason that Jeanie cannot generate the financial and volunteer support that she so desperately needs; just as it is the same reason that the AfriForum alliance now stands as the TKAG"s only option for challenging government.

On multiple occasions during the course of fieldwork, Jeanie expressed her disappointment that larger and more established organizations like the WWF had declined to become active in direct, legal opposition to fracking ever since it became clear that the TKAG was having success in its own endeavors. This does not seem an unfounded claim: throughout my period of ethnographic research I made contact with South Africa‟s Water Research Commission (WRC), the Climate Justice Campaign (CJC), and even the Cape Town branch of the WWF itself. Not one of these three associations had a person or division that was available or willing to discuss fracking with me. Indeed, even the TKAG‟s CANSA coalition has only come about in the last year. It could be argued, of course, that these groups are not actually opposed to fracking, but this does not seem to be the case: in May 2014, the CEO of the WRC took part in a nationally broadcast debate supporting the motion that „fracking threatens our water resources‟ on SAfm; the CJC, as mentioned in this paper‟s introduction, used to organize fracking street protests in Cape Town; and, since the time at which I contacted the institute, the WWF has published a report arguing hydraulic fracturing‟s non-viability for South Africa (Gosling, 2015).

Whatever the reason, the TKAG now finds itself the prisoner of a Catch 22. Success seems to have reduced the TKAG‟s support base, in that Jeanie and her colleagues appear to have the fracking situation so effectively under control that most like-minded people and organizations do not feel the need to get involved. This leaves the TKAG to rely on the assistance and resources of the only party also prepared to take a stand – AfriForum – which, considering that the TKAG‟s battle is against the directives of the ANC government, can be considered an alienating organization at best. As such, Jeanie‟s most indispensable ally is perhaps also the greatest barrier to accruing the broader public support she needs: in the South African political rhetoric, the AfriForum link places her group firmly in the conservative, white, Afrikaans, middle-class stratum of interest that is so commonly seen to stand against the sort of post-Apartheid world-making promised by the “pro-fracking” possibilities of the 2012 Econometrix report.

All of this, however, is to neglect one vital contributing factor – the nature of a “full time job” at the TKAG. Is it any surprise that there is no demand for a 24/7 unpaid position where the objectives of one‟s working day are to obstruct government plans purported to be in the public interest, and then to plead for the same public‟s help to do so? Not even Jonathan Deal seems to want the job anymore: in January 2015, on Sub-

Saharan television broadcast channel CNBC Africa, what follows was Deal"s candid response to interviewer Alec Hogg"s interest in his "anti-fracking" motivation:

> ALEC HOGG: Why? Why do you do this?
>
> JONATHAN DEAL: It ran away from me at the beginning. I didn"t understand the scope of this fight when I got into it four years ago... once the number of volunteers around the country had committed their time and effort, I just didn"t have the motivation… [but] I couldn"t, morally, I couldn"t just walk away from it. So I put in about R1m of my personal funds and all of my Goldman Prize money, and that"s been used.

In six months of fieldwork at the TKAG I only met Jonathan Deal once, even though it is his name and statements that are so ubiquitous in South African reporting on the group. Jeanie was always conscious (and conscientious) of Jonathan"s conspicuous absence, eager to point out how much she had learned from the founder of the TKAG and how much of her role was made possible by the trail he had blazed before her; how much his influence till "steers the ship". She also reminded me – as I remind the reader now – that the research carried out for this thesis could only provide what she called a "snapshot" of the TKAG"s composition. She was right: it is important to realize, as Keesing (1994) and Thornton (1988) have implored, that the findings presented in an ethnography *are* rooted in the time spent in the field and limited to the spaces and places occupied by the researcher. This acknowledgment aside, it says something for the situation at the TKAG that Jonathan Deal"s current absence never surprised me very much: after all, in half a year at the organization, the only volunteer I encountered every single day was Jeanie le Roux. From my first day until my last, in the midst of a handful of other volunteers" comings and goings, Jeanie was the only constant of the TKAG participant observation experience: a woman for whom the title of Director of Operations does absolutely no justice in surmising the multitude of roles and vital functions performed. Having come to know her only in this "anti-fracking" capacity, it is sometimes hard to believe that, five years ago, Jeanie was just a student:

> JEANIE: I finished my Masters in Environmental Management [at Stellenbosch University] in 2010… so I started looking for jobs… then I think I read in a newspaper article about proposed fracking in the Karoo… that there were now public consultation meetings that were being held across South Africa… and I thought well, I"d better go. „Cause at that stage I was already reading up on fracking… just trying to educate myself on it… and I thought, well maybe it"s a good thing… maybe one needs to consider sacrificing a piece of land for the better good, or the general interest of the country… so I went to the meeting… that room was just buzzing with attorneys [for Shell]… the tension in the room was really hectic… and there were people outside with posters, you know, like "fracking pollutes" or the typical posters that you get. And then [the attorneys] started speaking, and they were just smoothing everything over. They were saying that there were no contamination cases ever recorded around fracking, and it"s so safe, and then… Bonang Mohale [chairman and vice-president of Shell SA], stood up… someone asked him a question directly and they said "what will the environmental impacts be on the Karoo?" and his answer was "we will leave the Karoo better than we found it". And that was it for me. Afterwards I tried to get hold of Jonathan… I wasn"t even thinking

about anything else, I just knew that I had to get involved… I introduced myself… and within a week I was in a board meeting. At that stage TKAG had like a serious board with attorneys and media experts… we still have a board, it's just that we used to meet much more regularly. And now obviously Jonathan moved to the farm so it's different… But ja… he [Jonathan Deal] asked me to do a presentation of… how I see the whole fracking thing… so I had this whole PowerPoint presentation where I'd mapped out all the areas that could be affected by fracking and what the impacts are… and I could see some of them like… being amused by it… and it just escalated from there… and the core group started getting smaller and smaller, I think people realized how much personal time and sacrifice it really requires and I don't think it's everyone's cup of tea.

What this self-narrative hints at but does not state is Jeanie's age: she is 27. What the account *does* bring to light is how Jeanie got involved with the TKAG and why I have seen her reject offers of several paid full-time job positions, and funding for a doctoral degree, to stay with the group. Jeanie, an Afrikaans first-language speaker, identifies herself above all as a "proud South African"; lucky enough to find herself in the minority of the tertiary-educated. Her makeup is that of a person who *would* meticulously research any topic of national interest; and who *is* unable to stay uninvolved if her investigation produces any questionable results, especially so if she sees attempts being made to mislead fellow South Africans into trusting that these results do not exist. She is also the sort of person who takes up a task only if she will see it through to its very end with full focus, dedication and effort. As shown in this section, the execution of a task is something Jeanie will continue unabated through any hurdles from sexual objectification to ridicule of her over-preparedness. Even when an undertaking fails through no fault of her own, as in the previously explored case of sourcing public donations, Jeanie's search for the cause turns inwards: "I don't know if we should make it easier for them to donate… or go for selling stuff… I honestly don't know what to do…"

It is this unique combination of personality traits that leaves Jeanie in curatorship of the TKAG at a moment when the end of the organization's need to exist is nowhere in sight: at the time of writing of this thesis in mid 2015, the South African government has just published the final regulations on hydraulic fracturing, making way for the processing and endorsement of applications to explore for shale gas. If this next step towards fracking is as slow to come as the last, the TKAG will be consulting with AfriForum for a long time to come. Nearly two years have passed since government's publication of draft regulations, and Jeanie's indignation at the way in which public consultation was handled in relation to that document has still not subsided:

JEANIE: I think it's just wrong, from a moral perspective on so many levels. Even if you don't take into account the real impacts – the environmental and health impacts… Even if you just look at the way government has approached the issue… the way Shell has been marketing it… denying any form of

contamination... even though Shell has been responsible for several cases of groundwater contamination in the US. From a moral and just a justice perspective, it's wrong.

LAWRENCE: So it's as much an opposition to how it's being done as to the process itself?

JEANIE: Yes, definitely. I don't think we were elected or appointed by anyone necessarily, but I think we are a civil watchdog body and I think that we act to promote and protect the Constitutional rights of South Africans with regards to fracking… even pro-frackers who want fracking, we are acting to try and protect their rights as well… if you just look at the process that has been followed so far by the government that process has been significantly flawed and in contravention of several acts, so it's not procedurally fair.

What Jeanie finds "wrong", quite simply, is that the government has so far neglected to even *ask* any part of the South African populace if it would like fracking to go ahead, despite the costs that shale gas extraction would inflict on taxpayers and the state if it were to take place. Also, that the formulation of the parameters intended to control the activity – purported to be so definitively within the public's interest – has been entirely concealed from the public view. It is for these reasons that Jeanie identifies her organization as a "civil watchdog body" that would have taken action in the current scenario even if there *weren't* grave concerns about the environmental and health implications of fracking. Excluding these factors, what Jeanie operates in reaction to is the lack of transparency that has characterized the total fracking application process; that, and her own personal attachment to the Karoo:

JEANIE: I've always loved the Karoo. Not just for its natural beauty… if you look at the way that the environment has been exploited and polluted across South Africa then the Karoo almost feels like a last resort… that's been put under threat now as well… that's something that I really feel very strong about…

Much to her credit, this sense of „solastalgia" – a term coined by Australian philosopher Glenn Albrecht (2005) to refer to a feeling of distress caused by a current or imminent change to an environment whilst one is still connected to it – is not something that Jeanie has ever brought to the fracking "debate" in any official capacity. Her love of the Karoo is not something Jeanie wishes to defend or promote in any future action either, despite what the title of the TKAG might imply. Legally speaking, Jeanie could actually attempt a solastalgia approach: physical and mental well-being in relation to the environment are human rights protected in the South African Constitution, section 24 of which implies that the noise and artificial light involved in the operation of fracking wells alone might be enough to constitute a threat to one's attachment to a pre-fracking Karoo (Constitution of the Republic of South Africa, 1996). What keeps Jeanie involved with the TKAG, however, is not her desire to impose a preservationist mindset on the South African public. In my time with the group, I came to enjoy Jeanie's regular, outright dismissal of this kind of "anti-fracking" rationale as "soft stuff": she

does not forget that her attachment to the Karoo is a personal one, an emotional association different for everybody, perhaps even non-existent or apposite for some.

Instead of a privileged not-in-my-backyard mindset, which columnists like David Johnson (2013) have accused the members of the TKAG of imposing, what my ethnographic research has revealed is DOP Jeanie le Roux"s permanent anxiety that, if she was to throw in the towel, there simply wouldn"t *be* anyone to take over her role in directing the only South African group, representing civil society, that is willing to litigate government. Not that Jeanie is thinking about giving up:

> JEANIE: …it"s a very normal feeling to just feel, you know, we"re up against so much and it"s clear that the government has given the go-ahead… [but] for such a small organization we"ve managed to achieve quite a lot… and it"s really worth it… I realize what would have happened if it wasn"t for us, and I"m not trying to make us sound like these heroes... but I think we"ve come too far and we"ve sacrificed too much already to just give up… there"s no one, no one else, no other organization doing what we"re currently doing…

Coming to the end of my fieldwork with the TKAG, asking Jeanie about her future in the fracking "debate" served only to elicit another analogy: this time an optimistic allusion (borrowed from Jonathan Deal) to the infamous South African e-tolls saga of the last few years. The nationwide implementation of e-tolls, as far as Jeanie can see, was something that the government made a similarly autonomous decision about; something which, at one stage, looked just as inevitable as fracking does now as an impending reality for all South Africans. That future, however, has never actually materialized; and that Jeanie puts down to the efficiency of public opposition. "Anything is possible", were her words, "and you won"t know until you"ve tried".

These inspirational quotes bring to a close the first ethnographic chapter of this thesis, and mark the end of the study of the TKAG. With "*the* anti-fracking organization in the country" as a point of reference, the ethnographic content that follows in chapter three is presented in a sequence of concise comparative case studies of prominent South African "anti-frackers" who are *not* members of Jeanie"s group. This series of profiles begins with Jolynn Minnaar, a filmmaker whom Jeanie has come to identify with through mutual adverse experience as a recognized, local, female "anti-fracker":

> JEANIE: It"s something we [me and Jolynn] have discussed quite often – how different we are being received at, for example, industry conferences, because we are women and because we are young. In comparison to when Jonathan or an older male person addresses them… most of the people that attend these conferences work for oil industry or government, want fracking to go ahead, the majority of them are men 35 plus... I think it"s uncomfortable for them because the message is being delivered by [a young woman]. I mean, it"s not like they hold any punches… they really go for it but… I think it"s strange for them, they don"t know how to deal with it… so it"s easier for them to try and make fun…

CHAPTER 3:

THE "ANTI-FRACKERS"

"Fracking is a symptom of a much larger problem in our society, an oligarchy, a complete separation of people making decisions and those whose lives they affect."

- Hellen Slottje, quoted in Capital New York (Waldman, 2014)

JOLYNN MINNAAR, 2014 GLAMOUR WOMAN OF THE YEAR

If Jeanie le Roux and Jolynn Minnaar were to be pictured together, the pair might appear at first glance to counter the key claim of this thesis, confirming instead the homogeneity of the perceived "anti-fracking" collective. Jolynn, like Jeanie, is a white Afrikaans female in her mid-20s who harbours a personal emotional attachment to the Karoo. She has also been described in press as everything from an "impassioned anti-fracking activist" (Todres, 2014) to a "one woman anti-fracking army" (Silent Journey, 2013). Born and raised in Graaff-Reinet, another town entrenched in fracking application territory, Jolynn has garnered these titles through the release of *Unearthed*: a celebrated self-made documentary centered on an expedition she made to study hydraulic fracturing in practice in the USA. This journey, propelled by the announcement of fracking and its potential benefits for South Africa, comprised Jolynn's attempt to understand "what this new method of gas extraction could mean for the semi-arid Karoo" at a time when she herself was optimistic about the prosperity that shale gas extraction could bring – in jobs and income – to her hometown (van Rooyen, 2014). In a run-time of 93 minutes, *Unearthed* presents the outcome of 18 months and 400 interviews worth of Jolynn's recorded research (van Rooyen, 2014). The result is a movie named Best SA Film at the 2014 Encounters Film Festival, winner of the Green Award at the 2014 Sheffield International Documentary Festival, Audience Award at the Tri Continental Film Festival and a film which has even earned Jolynn the title of 2014 Glamour Woman of the Year in the "Change Agent" category.

All of this post-production glitz is a far cry from the content that Jolynn's picture actually presents. *Unearthed* features interviews with fracking industry whistleblowers, scientists and former well pad operatives – some of whom bear the physical results of chemical exposure themselves – who profess that, contrary to the sort of claims made by Shell, much goes wrong in the process of shale gas extraction. To this effect, Jolynn has filmed Americans living in the proximity of fracking wells turning on their taps and setting fire to the gas that now accompanies their water supplies. She has also documented a collection of harrowing cases of people suffering from hair loss, arsenic poisoning and leukemia, all attributed to fracking's contamination of domestic sanitation. Perhaps worst of all is *Unearthed*'s exposé of the justification that underlies the statements we have seen Jeanie le Roux become so irate about: the

proclamations that there have never been any recorded cases of contamination as a result of fracking. What Jolynn shows is that all those affected Americans who *have* been offered compensation by fracking companies have been bound, as part of their remuneration, to sign non-disclosure agreements. These contracts ensure that cases of fracking damage – the exact sort that the TKAG are so concerned about – become what the Britdoc Foundation (2012) calls "invisible statistics": cases never able to enter into the public domain of information or decision-making, which allow continued (truthful) claims that no such fracking-related harms have ever been *recorded*.

In an interview with The Herald in 2014, Jolynn added to her film's findings that her research for *Unearthed* had also shown that the Karoo's gas reserves are actually not as substantial as initially predicted; that the life spans of fracking operations are far shorter than generally believed; and that she herself remained unsure if fracking would deliver cheaper energy to South Africans (Gillham, 2014). In this interview, Jolynn also questioned "whether South Africa is facing a corporate fracking strategy or one which fits in with a national government energy programme" (Gillham, 2014). In a 2012 feature on the RSG Radio program *EkoForum*, transcribed on *Unearthed*'s accompanying website, Jolynn added the following, further statement of concern:

> JOLYNN: I believed that we could strengthen the economy and address our severe unemployment crisis but in America I was shocked to find that so much information is manipulated or hidden from outside researchers… the prevalence of gag orders that are signed by families who are impacted by air or water pollution... is very troubling because crucial information is missing and the rest of the world is unable to see the entire picture… long-term, there are reasons why shale gas is not necessarily a panacea for the current issues that we're facing. As far as job creation goes… not nearly as much as some of the optimistic studies have shown, but jobs are created for the basic skills sector. The problem is those jobs only last for about six months to a year or three when that company is in the area doing their drilling… as far as energy provision goes, studies are less and less optimistic… estimates have been slashed… and that's dangerous for a government that's gambling an energy resource that is reduced to 40%, or less, of the original estimate. (Unearthed, 2012).

The personal narrative of the film *Unearthed* accentuates director Jolynn Minnaar's about-turn in her initial positive opinion on shale gas extraction. As a consequence of her first-hand experiences in the United States, Jolynn punctuates the film with a skepticism that misleading assurances of safety will be given to the South African public; that the transport of workers and materials to and from well pads will overexert the Karoo's sparse infrastructure; and that all well-paid, skilled job positions will be filled by fracking companies' own migrant labour. When I met Jolynn at her film's 2014 Cape Town premiere it was this personal aspect of *Unearthed*, a movie which "challenges the assertion that hydraulic fracturing is a safe, time-tested technology

and questions whether shale gas is the solution for our energy-hungry world", that convinced me to recruit her to my "anti-fracking" research endeavour (Paul, 2015). During the time of my extensive participant observation with Jeanie, my study of Jolynn always remained limited to formal and informal interview-style research; partly to accommodate her own crowded schedule, but primarily because our early conversations revealed that the director of *Unearthed* doesn't actually consider herself an "anti-fracker" at all. In her own (and perhaps surprising) words to me:

> JOLYNN: The point of the film is that people can go have a conversation, participate… it is meant to empower… advance the conversation… I'm not trying to take anyone on… by staying away from the fighting, Unearthed [should] be able to make it further… Unearthed needs to exist independently, not as part of an anti-fracking campaign… it's not an activist film…

On *Unearthed*'s website there are a range of similar declarations made by Jolynn, who tries to place her film "in the space between pro and anti-fracking sides" (Clarke, 2011), and who wrote, in a 2011 online update, that the film's purpose was merely to provide information on fracking and encourage broader dialogue on the topic:

> A key driving force initiating Unearthed… was the need to address the paucity of information surrounding the proposed plans to explore the Karoo and broader regions for natural gas… a lack of transparency from those pursuing gas development; poor communication from Government and limited research in the media left the public poorly informed, if, at all… interested and affected parties have been unable to access the necessary facts to stimulate and participate in productive discussion about the risks and benefits in exploring and, possibly producing, the country's potential shale gas resources. In seeking to remedy this, Unearthed has worked tirelessly… to uncover the facts and examine all the various angles. The project is dedicated to an accurate, comprehensive study into the matter and, in doing so, providing a level-headed, informed voice in the various debates on… South Africa's energy future. (Unearthed, 2013).

In the RSG interview referred to earlier, Jolynn continued along these lines:

> JOLYNN: If you disagree with the decisions being made right now, whether it [be] fracking or the state of our country's education system or government corruption, you need to stand up and say something about it. (Unearthed, 2012).

It is in this regard that Jolynn Minnaar's apparent likeness to Jeanie le Roux is such a helpful facade to deconstruct. Though she openly questions the benefits of fracking in her film and public statements, and encourages South Africans to do the same, Jolynn is *not* looking to oppose hydraulic fracturing outright. Quite the contrary: she is all for it if – *but only if* – it can be done differently than it has been in the USA. As detailed in an interview with Tony Sanderson of Mining Prospectus (2013):

> TONY SANDERSON: Am I to understand now that what you started off believing you no longer believe in?
>
> JOLYNN: It is more complex than that, I do see real pros for shale gas extraction on paper. I have yet to see those being executed safely in a manner in which the extractive industry has justified…

Though Jolynn confesses in her *Unearthed* press junket that “after visiting the United States to cross-check the promises made to South Africa, I now gravely admit that fracking stands to hurt the ones it claims to help the most” (Baker, 2014), the closest that she has come to publically acknowledging or supporting an explicitly “anti-fracking” standpoint was in her 2014 interview with The Herald, wherein “Minnaar made it clear that while her research and her exposure to the negative impacts of the technique had pushed her towards the anti-fracking camp, there were still too many questions and „lots of ifs“ around the method and its benefits in the South African context” (Gillham, 2014). Translating this into her own words, Jolynn told me that she is hesitant to speak on behalf of – or *over* – anyone else in this country about whether or not shale gas extraction should commence. She is attempting instead to amplify the capacity and desire for this dialogue in members of the South African public, whom she believes should be the decision-makers. After all, while hydraulic fracturing no longer appears a “panacea” to Jolynn in her *personal* capacity, at this point in South Africa"s history of electricity load shedding she is acutely aware of the fact that:

> JOLYNN: …we do need *something* alternative to Eskom… and to be anti-fracking is to be seen to be…anti-progress…

As this thesis has shown, this sort of branding is not enough to dissuade Jeanie le Roux, whose own motivation impels her to stand immediately in the way of shale gas extraction and to appeal to members of the public to share and back her position while essentially talking on their behalf – as a self-appointed “civil watchdog”. Like Jolynn, Jeanie le Roux wants to protect her native country from the side-effects, misrepresentations and civil rights infringements associated with fracking. Rather than using her skills and qualifications to provide information intended to get people *interested* in doing the same, however *they* see fit, Jeanie"s method is to do it *for* them, her way, and to try to gather support as she goes. There is no “if” involved in Jeanie"s opposition, and this is not an entirely thankless task: Jolynn Minnaar, for one, seems grateful that Jeanie has been willing to take up this “full time job”. Despite her own reluctance to be associated with an out-and-out “anti-fracking” position, Jolynn admits that she *is* placing her personal trust in the TKAG to stop shale gas extraction going ahead, should it be endorsed in a similar manner as it has been in the USA:

> JOLYNN: …the TKAG will be there to stop it [fracking] when it is stoppable…

The unambiguous confirmation of Jolynn"s dependence on the TKAG ranks among this dissertation"s most significant findings, not least for its affirmation of Jeanie's

earlier comments concerning her motivation to persist as TKAG Director of Operations: an impetus which emerges, in part, out of the knowledge that no-one else is willing to do her "job". This observation also begins to set the path towards understanding the ways in which Jolynn is different from Jeanie, and how Jeanie *and* Jolynn are each different from any other alleged "anti-fracker" mentioned in this paper or any further source.

Jolynn Minnaar is first and foremost a *filmmaker,* a journalist interested in "stories that matter", whose expedition to see fracking in the USA was the subject matter of an informative documentary she chose to make. A University of Cape Town BA Graduate in Film, Media and Screen Production, Jolynn did not pick a documentary, from among a range of possible mediums, to be her vehicle for an ulterior motive to put out an "anti-fracking" call to arms. Everything filmed, edited and put together to realize her vision for *Unearthed* were regular parts of Jolynn's craft in the film production process: a process involving producers, editors and more, carried out with such expertise that it resulted in the critically-acclaimed movie that *Unearthed* is today. While *Unearthed* did end up *unearthing* video evidence that people in South Africa might be affected badly by hydraulic fracturing (if the procedure is carried out anything like it is in the US), these findings and implications are secondary to the film itself – a product of Jolynn's trade, which is one of neither "environmentalists" nor the energy industry. More than that, the research that went into *Unearthed* did not leave Jolynn decidedly opposed to fracking in any form; only the form in which it has taken place in the USA.

That Jolynn places her faith in Jeanie to operate the TKAG as she does is the clearest indication possible that these two women are themselves conscious of their reliance on separate and dissimilar approaches, objectives, allies and actions, that produce equally disparate outcomes: a film that presents a skeptical (yet unobtrusive) perspective on one hand; and deliberate legal and administrative obstacles to fracking's approval on the other. Through this comparative lens, it is also readily apparent that there is much more to Jeanie and Jolynn's respective canons of motivation and action than a mutual "green" agenda. Yet this is not the depiction of heterogeneity that appears in most of the sources referenced in this thesis. The predominant portrayal in these easily accessible pieces of public information is one of Jeanie and Jolynn as equally "anti" "anti-frackers" (in the sense of active, non-conditional obstruction), with a shared "environmentalist" mindset. Certainly none of

these sources take note that Jolynn, despite her reservations, is in one way *grateful* for fracking"s potential in South Africa, in that she has seen the topic of hydraulic fracturing become such an integral part of day-to-day talk across the board in Graaff-Reinet that she has noticed it eroding the barriers to racial integration that have always persisted in her hometown.

This obfuscation of understanding is the end result of the pervasive labels that fabricate the existence of a two-sided fracking “debate”, obscuring the diversity of local voices struggling to be heard on the potential for shale gas extraction in South Africa. These labels work in the direct interest of those who stand to gain most, financially, from hydraulic fracturing, and do so *so* effectively, in fact, that the muting of those for whom most is at stake goes largely unnoticed. This, in essence, is the argument of the present dissertation. Though it is starting to emerge here in its rawest form, it is in the final chapter of this thesis that the argument receives its fullest explication and finds its theoretical underpinning. Before that concluding point is reached, there are a chorus of further voices to be accommodated in the space now made available by Jeanie and Jolynn. In the course of research these remaining voices were ones that I discovered and recorded in something of a chain reaction of encounters, which began as the next section of this paper now does, with a man named Kinesh Chetty.

KINESH CHETTY'S ROOFTOP REVOLUTION

A self-described "green business visionary" and "eco-entrepreneur", Kinesh Chetty is the founder and CEO of GreenerFuture, an environmental consultancy group that deals with carbon emission reduction strategies. GreenerFuture is the second NGO that Kinesh has founded since he graduated from Wits University with an MSc in biology in 2005. His entry into the world of "green business", unrelated to his degree specialization in reptile studies, came after his disillusionment with the limited environmental impact he was able to make in his first post-graduate job as a game ranger, and his second at a company that traded in carbon credits:

> KINESH: In a natural reserve and as a game ranger… you can look after these animals and try and make an impact on these animals" lives… but I got sort of a little bit disillusioned… I realized that I want to do something that"s good for the planet or good for the environment… that I want to do something in the business space that has an environmental end goal… [then] I was working for a company that used to implement Clean Development Mechanism projects… I worked in that corporate space for a while and also realized that the progress on that end is too slow. But what I did learn was about international finance mechanism[s], and I was introduced to all of the renewable energy technologies there are… so I left… I thought that using business principles [I] can do something really cool [for the environment]…

Since leaving "that corporate space", Kinesh has succeeded in growing GreenerFuture into an international partnership with German photovoltaic company Maxx Solar Energy, with a view towards democratizing solar energy in South Africa. He has also been appointed director of Maxx Solar"s South African division – this country's chief materials and skills provider for photovoltaic energy systems. In this role, Kinesh is working towards creating decentralized renewable solar energy for South Africa. Perhaps unexpectedly, it is this objective that has brought Kinesh into an informal partnership with the TKAG; which ensured that his path crossed my own trajectory of research so frequently in my time with Jeanie and Jolynn that a whole new course of participant observation was born. During the six months of fieldwork that gave rise to this thesis, my meetings with Kinesh Chetty culminated in my direct involvement in one of his association"s flagship projects in the Karoo. My participation in this initiative is detailed in the next subdivision of this dissertation to afford the experience its necessary space for elucidation. In the section at hand, there is completed first the portrait of Kinesh that came out of my ethnographic fieldwork and interviews: a man whose "anti-fracking" effort is the only such work included in this paper that has *not* been identified in South African press by this homogenizing tag, precisely *because* of the form his "anti-fracking" labor takes.

Kinesh Chetty does not stand in the way of hydraulic fracturing like Jeanie le Roux; nor does he wish to get people talking about it like Jolynn Minnaar. What he has set out to provide, through his *own* distinct network of expertise, allies, goals and actions, is an alternative source of energy for South Africa: one which will eventually render shale gas extraction a needless, avoidable redundancy.

> KINESH: When I heard about the fracking thing… in the broader sense of "OK, we're going to drill holes into the Karoo and do something that could potentially completely fuck up the water table", I thought it was a bad joke… an April Fools story. The Karoo being so dry you risk… contaminating the water source… I thought wow, this is really ridiculous… [then] I heard Jonathan speak at a conference and I approached him and I said "Jonathan, that's quite an inspirational story. I didn't realize it was your group that was responsible for… putting the brakes on the fracking. I'm in the solar game, we need to talk because I want to support you and I think we can do something to say „guys, there's another way, you don't actually have to frack to provide energy to people"". Yes, there's job creation and potential to make huge amounts of energy, etc. etc., but there's also potential for so much to go *fucking* wrong. And when you are experimenting with that and you are staring in the face of another solution that is possible, viable, proven around the world… why would anybody in their right mind decide to go for the option where there's a significant amount of risk, or potential for absolute catastrophe, when you can leverage off a robust, reliable, non-toxic, decentralized, daily source of energy that has absolutely minimal impact on the environment?

Through Maxx Solar Energy and GreenerFuture, what Kinesh is trying to prove is that the power of the sun can offer better, safer energy provision for South Africans than shale gas; but only if realized in a particular way:

> KINESH: …you get those guys who are doing clean energy projects because they see a business opportunity, and you get those guys who are doing energy projects „cause they see an environmental responsibility… I would say that those big, big, big solar projects that are coming up… I would say [they are] less driven by an environmental good than by a balance sheet. That's my opinion, I don't think that's the right way… you have to dynamite huge areas of natural land, put up a massive power plant and transport that electricity hundreds and hundreds of kilometres to where it's going to be consumed. Why not spend that equivalent amount of money and just give everybody a small solar system? You generate the same energy, you decentralize it so you derisk the whole supply chain, and you don't have to transport it… these huge projects are pursued… because biliions and billions… change hands, someone benefits… whereas if you had to do this on a smaller, more sustainable, more decentralized scale, it's harder to hide the paper trail.

Kinesh's opinion – like his approach – is informed by a decade of experience in renewable energies. Taking inspiration from Maxx Solar's home country Germany, where nuclear power projects are being decommissioned in favour of decentralized solar energy (despite receiving half the sunlight South Africa does and bearing a population double the size), what Kinesh is working towards is the equipping of each house in South Africa with its own small solar power system. For Kinesh, this is a guaranteed long-term solution for energy supply: the sun's energy will not soon run out as (merely *estimated*) shale gas resources inevitably will. The only rationale that Kinesh can see for government to endorse fracking – or any short term option bearing any risk at all – over a safe long-term energy alternative like (his vision for) solar is

profit, the same motivation he sees driving centralized energy plans. Kinesh predicts that those laboring to have shale gas extraction proceed in this country will receive a substantial financial kickback should the activity be sanctioned, even while in his own estimation the risk of fracking isn"t worth "all the money in the world".

In the renewable energy circles that he works in, Kinesh doesn"t find this perspective widely shared: typically, these spaces he finds more lenient towards the profit-oriented mindset. Unlike Jeanie, however, Kinesh is not looking to change the minds of his peers. He is not even interested, as Jolynn is, in trying to get a conversation going:

> KINESH: I don"t think I could actually sit across the table from someone who was like "ja, fracking is a great idea"… for whatever reason… if they started to defend the fracking position I would actually get up and walk away… I wouldn"t even try to convince them because I don"t think that any reasonable person would say that this is a good idea…

In this sense, Kinesh appears not so much as an active "anti-fracker" as he does "pro-solar". In avoiding conflict and/or the struggle to change people"s minds, Kinesh has been able to focus his own efforts on growing Maxx Solar to the point at which he can now see his vision for South African solar energy being realized within the next two years. The model of success that Kinesh is aiming for is what he describes as the bell curve of new technology: a period where only a few people adopt a product tentatively, followed by a massive demand built on the proof of its utility and value. At present, Kinesh estimates that only one in every ten thousand homes in this country is equipped with a solar system, primarily concentrated in Cape Town as a result of the city"s "international flavour". In the context of Eskom"s ongoing load shedding, which factors into Jolynn"s thinking as well, Kinesh is hoping that the South African "Boer maak „n plan" mentality will help to accelerate the spread of solar technology beyond the current demographic, as it catches on that those with photovoltaic systems are able to provide their own electricity where government can"t. His present client base – the early adoption group – consists primarily of:

> KINESH: …guys who understand the broader picture, because they are in touch with what"s happening in the world and they are worried about the country"s energy supply…
>
> LAWRENCE: But I guess the unfortunate thing about that is that it really is only the middle to upper echelons of society that can afford to even think that way, „cause they"re not worrying about how they"re going to put bread on the table the next day.
>
> KINESH: It"s only the rich, ja… that"s where the next step comes from, we must be able to make PV [photovoltaic] systems affordable. My goal is to be able to offer a client, the really average working man, a PV system that provides energy for their house, and he pays a small amount of money to install it, and he"s got a debt, a loan to pay for the next five or ten years, but the money that he saves on electricity completely pays for all these things… then everybody can afford it.

Kinesh is in the process of securing low-interest financing from abroad to make his solar systems as inexpensive as they need to be in order to constitute a realistic option for the population majority. Using this money rather than a high-interest loan sourced locally, the next step in Kinesh's strategy is to make household solar power so pervasive – even for low-income South Africans – that it will spread, one-by-one, as a prevailing alternative to fracking. That solar will be an *alternative* is something that factors into Kinesh's vision, in that all of his plans are built around the certainty that government *will* go ahead with shale gas extraction, and that he and his colleagues will need to prove it gratuitous even as it proceeds:

> KINESH: …fracking, I'm concerned it will still go ahead… I'm optimistic that… we as a solar industry can relieve enough pressure on the grid that we don't have to frack… we can build and implement enough solar… then we can *not* do one of the negative things... and that will be enough… [for people] to say "OK, the environmental business has done something good"… it's totally a viable option to remove some of the strain off our grid… we can have a huge environmental impact cause potentially we don't frack…

In a comparative look at the South Africans depicted in this thesis so far, Kinesh Chetty's attitude and techno-entrepreneurial approach to creating a fracking alternative in affordable solar power is the third unique manifestation that a supposedly universal "anti-fracking" motivation and mobilization has taken. Kinesh's desire to avoid the extraction of shale gas in this country has taken him on a path completely removed from hydraulic fracturing itself; to provide an adequate substitute for energy supply in the view that fracking *will* go ahead. Jeanie le Roux's wish to avoid hydraulic fracturing can be seen to be identical to Kinesh's in its essence, but has driven *her* to act to stop shale gas extraction before it has even begun; into a direct collision course with those parties angling to have fracking take place. Unlike Jeanie and Kinesh, Jolynn Minnaar is unwilling to explicitly position herself as someone who does or doesn't want hydraulic fracturing to commence, and though she maintains a skepticism about the process, her own form of action has been directed neither towards fracking's prevention nor its authorization. In fact, the only way in which Kinesh does appear immediately similar to either Jolynn or Jeanie is in his TKAG-like confidence about the future – Kinesh feels that he has come too far and put too much in to his "anti-fracking" efforts to give up:

> KINESH: We will do it… I have no doubt about that… we will do it… you cannot stop this, this is the revolution, this is the rooftop revolution, it will not be halted by anyone… we will not stop doing this… we will win eventually. Don't know when, don't know how… but no matter what happens we're not going to give up… we're not in it just for a short term profit… we believe that we will achieve a greater end goal.

It is the spread of decentralized solar energy through household photovoltaic systems that Kinesh Chetty calls his “rooftop revolution” (against fracking), and presently this revolution seems to be in full swing. To address my own queries about the feasibility and progress of Kinesh‟s frack-free vision for South Africa, in November of 2014 I agreed to accompany one of Kinesh‟s German Maxx Solar Energy associates – Vivian Blumel – on a three-day-long trip to the small Karoo town of Nieu-Bethesda, situated around 60km from Graaff-Reinet. As another settlement that falls within South African fracking application territory, Nieu-Bethesda has developed a media reputation as something of an “anti-fracking” hotbed: the town was the host of a well-advertised “Global Anti-fracking Day Rally” in 2012 (see du Toit, 2012), and a similarly publicized “anti-fracking march” in late 2013 (du Toit, 2013); both attended by the TKAG.

In late 2014, through one of Jeanie's contacts in the town, Kinesh had heard about settlements on the outskirts of Nieu-Bethesda where some inhabitants had resided for years without electricity, unable to afford the cost of its supply. During my course of research Kinesh decided to offer these South Africans photovoltaic systems free of charge, to make a statement in the ostensibly “anti-fracking” town as to the viability of his hydraulic fracturing alternative. The purpose of his colleague Vivian‟s trip was thus to establish if the residents of these settlements would welcome the installation of free Maxx Solar photovoltaic power systems and, if so, what the requirements of these systems would be in terms of their daily power output and their physical design. Being German/English speaking, and heading into a predominantly Afrikaans area, it was predicted that Vivian's mission would require her use of a translator. It was in this dual capacity, as an Afrikaans-English interpreter and as an ethnographic researcher interested in the concrete application of a fracking alternative in an apparently “anti-fracking” town, that I traveled with Vivian from Cape Town to Nieu-Bethesda. The next and final ethnographic section of this dissertation details the unexpected findings of our expedition, making room first for a key interview conducted along the way. With this last set of interview data and observations as a closing point in the paper‟s deconstruction of the South African “anti-fracking” movement, the dissertation moves to Latour (2013) and Finewood and Stroup (2012) to case and compare the efforts of all those included in the study, with a view towards reframing the varied forms of “activism” forced to contend with the powerful post-Apartheid world-making crafted in the Econometrix report and government‟s subsequent move towards fracking.

DEREK LIGHT AND THE TOWN OF NIEU-BETHESDA

A note at the outset of this section: the latest available edition of the official Nieu-Bethesda town map has been included in the Appendix of this dissertation for the reader's reference over the course of the coming pages.

Towards the end of the eight hour journey to Nieu-Bethesda, Vivian and I made a pit stop in Graaff-Reinet – Jolynn's hometown – to meet with Celine van Rensburg, a researcher from Holland whom I had been in contact with about her own fieldwork in the Karoo, focused on South African citizens' perceptions of fracking. Celine invited me to accompany her to an interview she had just set up with local attorney Derek Light – a man heralded as a South African "anti-fracking leader" by columnist Alan Straton (2011) and as a "defender of his birthplace" by Jay Caboz of Forbes Africa (2013). Julienne du Toit (2015) has summed up Derek Light's story as follows:

> Up until 2009, Derek Light and Associates was a tiny law firm in Graaff-Reinet that handled the usual country legal stuff: conveyancing, wills, plus a few civil and criminal cases. In January that year, everything changed with a single phone call. Sarah Tompkins, part owner of Samara Private Game Reserve, needed someone to help her oppose a dodgy-looking application from a company called Bundu. They wanted to drill for gas very close to Samara. Although he didn't know much about gas or drilling, Derek did know a severely flawed legal document when he saw one. "It was immediately apparent that there were administrative shortcomings in Bundu's application and we forced them to withdraw it. They brought another application. It too was fatally flawed, and when we pointed this out to Government, the second application was rejected."

Fiona Macleod of the Mail & Guardian (2011) continues:

> Shell's plans to drill wells for natural gas across a large swathe of the Karoo are fatally flawed and should be rejected, according to lawyers representing local landowners. Derek Light Attorneys criticised Shell's environmental management plan submitted to the Petroleum Agency of South Africa… describing it as "a worthless paper exercise" that was misleading, biased, unprocedural and unconstitutional. The attorneys also represent AgriSA and business tycoon Johann Rupert, who owns a farm in the Karoo.

As an ethnographer interested in the diversity of "anti-fracking" efforts in South Africa, the opportunity to sit in on an interview with a high-profile figure like Derek Light was one that I could not miss. Especially so since both Jeanie and Jolynn had previously recommended that I include Derek in my research because of his reputation and accomplishments: as Caboz (2013) surmises, "in 2008, he represented one farmer [in opposition to fracking]. Five years later, he represents thousands, including Johann Rupert, the second richest man in Africa". I was, however, only able to meet Derek Light through Celine van Rensburg's generous accommodation of my presence, and as such, the lengthy interview that I recorded was essentially a part of *Celine's* investigative endeavor. For this reason, this dissertation's assessment of Derek Light

as an “anti-fracker” is necessarily brief, and primarily limited to the small set of questions I was able to ask at the end of Celine's own inquiry. The account of Derek Light is essential to include here, in spite of its brevity, for the *fourth* entirely unique “anti-fracking” profile that it provides. In Derek's own words:

> DEREK: I'm not an activist, a banner bearing activist. But I think I'm sometimes seen to be that. I am an attorney employed by specific landowners, and I've got to give them good objective legal advice. Not emotional… stuff. And to that effect we've done millions of Rands worth of research. Because we don't know whether the cost [of fracking] will outweigh the benefit… we don't say there must be no development ever. We say there must be responsible development, sound decision making, good governance and control.

If this statement alone was all that I had taken out of months of participant observation at Derek Light's law firm like the research I did at the TKAG, it still would have been enough: enough to demonstrate that opposition to fracking in South Africa is not universally motivated by not-in-my-backyard mindsets, “green” agendas, “environmentalist” priorities or emotional attachments to the Karoo. It does not require that one be personally outraged by misleading information put into the public sphere (like Jeanie), driven to use one's latest film production to encourage public dialogue (like Jolynn), or even that one leads a “revolution”, rooftop or otherwise (like Kinesh). Opposing fracking can, quite simply, be nothing more than a regular part of a paid job; something one is hired to do. Derek Light, by his own admission, is no “anti-fracker”. His is not a personal pursuit. Derek is a lawyer who has been employed by Karoo landowners to give legal force to *their* varied opposition to fracking, and in this respect he has been very successful – at his own craft, in his own business hours:

> DEREK: I'm an attorney, I'm not an activist. Jonathan [Deal] and them were able to dedicate full time their efforts to a media campaign and creating public awareness. And I think they've done a great job… they've got a different approach to us… they are far more head-on with government… they have a very different mandate… I'm retained for a particular job, if my job is terminated tomorrow then I'm out of there, you know what I mean?... I've got a job to do for my clients… but a client can say to me tomorrow “I no longer want to spend money on this”… or “we can't do that”… then that's when my involvement stops. But at this stage there's no indication that that's going to happen…

As hinted at in his comment that the TKAG “are far more head-on with government” – and in Julienne du Toit's earlier account of his firm's action since 2009 – Derek Light credits the increased demand for his services as an “anti-fracking” lawyer to the administrative approach to litigation that he has opted for: an approach made possible by his legal training and expertise. In his representation of clients who are opposed to fracking on or near their property (for any and all of the reasons already exhaustively listed in this paper), Derek told Celine and I that his aforementioned success in having fracking applications rejected has rested on addressing and correcting government's

failure to make applicants comply with the necessary existing legal provisions and mechanisms contained in South Africa"s National Environmental Management Act and Constitution; and in not refining or drawing up new acts and regulations appropriate to *this* country where these have clearly been required:

> DEREK: The draft regulations were a shambles… cut and pasted and borrowed from the mining industry of the USA… focused on fracking itself, not drilling and the other parts of the process…

In this, Derek Light holds that his work has been to persuade and point local authorities towards doing "the right thing" – to, as he said, develop law to attain "responsible development, sound decision making, good governance and control" – and thus to direct hostility away from government and towards fracking applicants; companies whom he has "no qualms fighting". From the extensive research he has carried out and the legal encounters he has had thus far, Derek maintains that Shell, Falcon, Bundu and other companies specifically target countries like South Africa where environmental regulations are weak, in order to "do their thing in their own quick and dirty way". It is for this reason that Derek is willing to give local government credit for its "massive step forward in the right direction" in following his lead so far:

> DEREK: …[in South Africa] the full disclosure of chemicals [contained in fracking mixtures] is now necessary… now legislation says that if an appeal [against an environmental management plan] happens on environmental grounds, the whole activity must stop until the Minister of Environmental Affairs hears it… the law in country has changed because of fracking – mineral and environmental legislation has been refined. We are in a far better place or position than we were…

Derek Light is unwilling to provide any assurances – to me, Celine, or even his own clients – that hydraulic fracturing will not take place in this country. What he does guarantee is that South African law *has* and will *be* changed to ensure that shale gas extraction, if it proceeds, will take place in a manner better regulated, in a country better prepared, than would have been the case when the first fracking applications came in. This, like the moratorium which followed the initial applications, will be "the direct result of people being involved with the process": not least Derek"s own firm of attorneys. If this *is* the case, and fracking is *not* carried out as it has been in the USA, at least Jolynn Minnaar might rest easy. Jeanie and Kinesh, however, will still have work to do – as Derek acknowledges, this country will *always* have a price to pay:

> DEREK: If this goes ahead and there is lots of gas, you won"t recognize South Africa. It will change. The country as you know it will no longer look the same, be the same, it will never be the same again.

The town of Nieu-Bethesda, as Vivian and I later found it, is one South African location – less than 30 minutes" drive from Derek Light"s offices – that is likely to look *very*

different if hydraulic fracturing goes ahead. Narrow mountainous roads emerging from Graaff-Reinet give way to a dirt track that forms the main road of Nieu-Bethesda (Martin road on the accompanying map); and as Vivian and I crawled at a maximum speed of 20km/h along this sandy street, it was immediately apparent why the town's website had promoted it as a place that "potters along much as it did 130 years ago, when the village was founded" (Allemann and Allemann, 2015). There are no ATMs or petrol stations in Nieu-Bethesda and there are no streetlights lining the gravel roads. Apart from power lines there are no electronics that can be seen or heard from the streets, few buildings rise above one-storey height, and as far as the eye can see the settlement is surrounded by borderless plains of grass, trees and mountains (but very little water – see the map's labeling of Gats River, the local aquifer, as "mostly dry"). In her own recent ethnography, it was these elements of the town that led anthropologist Marguerite de Villiers (2014: 10) to describe Nieu-Bethesda as a "seemingly isolated place that, at first glance, appears to have missed the 21st Century".

The entire area of Nieu-Bethesda encompassed in the town's map occupies less space than a typical city block in the Cape Town CBD. As de Villiers (2014) found, the town's small populace appears to be entirely white and predominantly foreign: so much so that upon checking in at our accommodation, I was initially presumed to be German – by our German proprietor – assumedly by virtue of my own whiteness. De Villiers (2014) estimated that around 50% of Nieu-Bethesda's residents depend on tourism for income, whether in selling souvenirs or forms of art, or in businesses that offer services like restaurants, accommodation, and so on. On the map, evidence can be found to support this claim: the art centre, theatre, Dustcover Books, the Outsiders B&B, the Village Inn and the backpackers all exist within a few hundred metres of each other. Between these locations, Vivian and I were told not to worry about our hired car, our belongings or our personal safety. What de Villiers (2014) saw in this space led her to argue that it is Nieu-Bethesda itself that is sold in the town as a brand – a safe, nostalgic, natural escape from modern city life. De Villiers (2014: 15) also "got the impression, after speaking to several visitors and recent residents, that their interest in Nieu Bethesda stemmed from a dislike of and even a distrust in change".

It was for these reasons that de Villiers (2014: 32) identified the possibility of hydraulic fracturing in the area as "the most pressing issue that Nieu Bethesda is presently facing", even though her own ethnography was centered on a topic removed from my

own: namely, the oral history of town artist Helen Martins. Whatever one"s scope of research in Nieu-Bethesda, it would be difficult *not* to pick up on the current significance of fracking in residents" lives. Prominent signs and banners declaring opinions like “we believe fracking is an empty promise” (the sort described by Jeanie as “the typical posters that you get”) decorate most properties in the town, presumably left over from the “anti-fracking” events of 2012 and 2013. As far as de Villiers (2014: 32) argued, fracking is such a universal concern in Nieu-Bethesda for apprehensions around the contamination and consumption of what precious little water the town relies on; but also for its potential disruption of the “picturesque snapshot of a time gone by” – for the interference that this modern technological development would have with the rustic Nieu-Bethesda brand, for the discord it would create in the advertised image of local interconnection between humans and nature, and especially so for the divisions it might expose in the racial arrangement of the town and it surrounds.

What I witnessed of the spatial, racial structure of Nieu-Bethesda adds a more sinister historic dimension to the claim that the town potters along much as it did a century ago. de Villiers (2014) sums up my observations: “in Nieu Bethesda there is what most people refer to as: the „village" (referring to white residents), „township" (coloured residents) and „squatter camp" (black residents)” (pg. 86). Simply, the population of the town first *appeared* to be entirely white because there is an almost Apartheid or pre-Apartheid-era division of living areas according to constructs of race; and while Nieu-Bethesda itself is fully supplied with electricity, few power lines extend beyond the white „village". When Vivian and I met with Jeanie"s contact – a white woman *from* the „village" – she herself referred to “the black area” and “coloured area” when pointing us to the individuals we should visit to enquire as to interest in Maxx Solar Energy systems. On the tourist map included, the “coloured” „township" *should* be pictured at the top of Hudson Road, following the illustrated footprints, and the “black” „squatter camp" *should* be depicted at the footprints leading out of Martin Road. That neither of these settlements is indicated on the map of the „village" is itself an indication of the enduring segregation that is omitted from the Nieu-Bethesda brand: “"the great divide" as one resident calls it, between the different racial groups” (de Villiers, 2014: 91).

The multiple trips that Vivian and I made into the unmarked areas of the map were overwhelmingly successful in their objective. Mostly in Afrikaans, residents of both non-white districts – made up of houses and tin shacks a far cry from the spacious,

yarded homes of Nieu-Bethesda – warmly welcomed the prospect of photovoltaic systems, and the necessary recordings were taken and provided in order to determine the physical structure of the solar panels to be manufactured by Maxx Solar (which are being produced as I write). Even where some households on the outskirts of Nieu-Bethesda were already supplied with electricity, inhabitants expressed a desire to use the opportunity to connect with Vivian in order to make a future switch to photovoltaic power provision. This was not only because these South Africans were independently well-informed about the cost benefits of solar energy, but more so because they were eager to take part in any sort of initiative that would make a statement against the supposed necessity of fracking in this country. One such resident provided a wealth of unique perspective in this regard; explaining that a particular concern in the region is around the damage that fracking chemicals might do to the fossils and artifacts that have yet to be exhumed from the still archeologically rich Karoo.

More importantly, however, what this woman revealed was her visible anguish that as far as fracking goes, her and her fellow residents of "the coloured area" of Nieu-Bethesda are wrongly considered to have "the wool pulled over their eyes" by those living in the town itself. She insisted, urgently, that this was not the case: even though she and her neighbours are viewed across racial lines as ignorant, unconditional fracking supporters who are focused only on the promises of jobs and prosperity made in the Econometrix report, they *do* in fact understand the threats posed by shale gas extraction because they *are* self-informed, just as Jolynn would wish. Further than that, those living on the fringes of Nieu-Bethesda have their *own* qualms about hydraulic fracturing and its associated mistruths – apprehensions that lead them to support alternative energy projects; misgivings that could, and should, complement those held in the "white part of town". The difference, as this woman acknowledged, is that many of those on the outskirts – physically and racially – are unable to afford the financial cost of giving the loudest voice to their concerns. Not owning a film studio or a photovoltaic systems company does not render one a "pro-fracker" any more than not winning a Goldman Prize or not being able to afford having Derek Light on retainer. As Marina Louw and Jolynn Minnaar (2013) have surmised:

> …the misconception sometimes encountered among well-resourced people that poorer communities are only interested in securing jobs and therefore not open to, or capable of, understanding the threat posed by the exploitation of fossil fuels, is erroneous.

In our time in “the white part of town”, where the cheapest dinner we could find cost Vivian and I R150 per person, it was saddening and frustrating to hear the predicted opposite track; to see the fault lines in South African cross-racial communication at their most obstructive – even *de*structive. One white resident informed us that inhabitants of the (white) „village“ are so aligned in their “anti-fracking” sentiments that known “pro-frackers” have been and always will be turned away from any of the local restaurants or guest houses, despite the centrality of tourism to the settlement‟s economy. We were told that this unanimous resistance to fracking is built on a shared apprehension about the consumption of scarce wood and electricity resources, the use and contamination of limited water supplies, and the unprecedented strain that fracking equipment, labor and transport would have on the rudimentary infrastructure of Nieu-Bethesda. As far as our informant was concerned, however, the “community” of Nieu-Bethesda would have no trouble in resisting fracking, as they had done for years previously, if government were to authorize its commencement. The only obstacle to resistance, in this resident‟s (apparently shared) opinion, would be the nearby residents of the „township“ and the „squatter camp“: local people of colour who would – as our previous informer refuted – welcome the possibility of shale gas extraction because they would be fooled into believing they would be provided jobs, which would be a priority even if they *were* aware of the risks of fracking.

That I could spend just one weekend in a famously “anti-fracking” town and gain more insight into the different (or rather, *not* so different) regional „racial“ opinions on shale gas extraction than someone who had lived in the area for years, within literally a minute‟s walk of those so misrepresented and misunderstood, was a devastating wake-up call to the challenge facing anyone standing against hydraulic fracturing in this country. If those in the population majority – the people whom fracking is being touted to benefit the most – are opposed to shale gas extraction, but are muffled by their own lack of resources and the racist baggage of post-colony, post-Apartheid South Africa, how will resistance to fracking ever appear as anything *but* a white, privileged struggle? Especially so if, as Jolynn says, the “industry will split up a community. They identify the racial, social vulnerability to distract a community. To make it people vs. people” (Minnaar, quoted in Phoebe, 2014)? The answer, I hope, lies in the next and final chapter of this thesis: in a neoliberal deconstruction and Latourian rethinking of the alleged two-sided “debate” at hand.

CHAPTER 4:

NEW DIRECTIONS FORWARD

"The world is not a solid continent of facts sprinkled by a few lakes of uncertainties, but a vast ocean of uncertainties speckled by a few islands of calibrated and stabilized forms."

- Bruno Latour, Reassembling the Social (2005)

DECONSTRUCTING THE "DEBATE"

In *Fracking and the Neoliberalization of the Hydro-Social Cycle* (2012: 73), Michael Finewood and Laura Stroup point out that, despite "mounting evidence that communities above targeted shale gas plays are vulnerable to environmental health risks inherent to this industrial extraction process", stakeholders from civilians to government must still wade through a diverse range of narratives regarding the costs and benefits of fracking in order to determine whether or not to endorse the technique. Finewood and Stroup (2012: 73) argue that the most powerful narratives – the very reason that the fracking "debate" continues in the face of damning evidence – are those of fracking proponents, who rely on neoliberal apparatus to obfuscate the actual drilling process and to normalize impacts on the "hydro-social cycle": Swyngedouw's (2009) conceptualization of the inextricably linked relationship between water and society, and likewise, "how hydro-social transformations are imbedded in and infused by class, gender, ethnic, or other power struggles". For Finewood and Stroup (2012), the key apparatus of this narrative obfuscation is the cost-benefit analysis, which works to construct social and ecological resources – like water – as just one input in a fully economized hydro-social cycle. In this view, stakeholders are expected to weigh the potential (and as Jolynn Minnaar showed, officially unrecorded) fracking threats to water, seismology, sense of place and existing social structure against their own personal and national financial welfare, and their communities' economic survival.

As it has in South Africa (in the Econometrix report and subsequent government statements), "this largely occurs through a discursive framing of natural [shale] gas as a green fossil fuel, a solution for national resource independence and domestic energy needs, and a generator of local economic growth" (Finewood and Stroup, 2012: 73). In this scenario, *possible* risks of fracking – for which there is no *documented* evidence of danger – must be considered in discourse as local factors in a broader global energy marketplace of costs and benefits, wherein the predicted economic benefits of shale gas extraction far outweigh any concerns around the potential costs for ecology, but also limit diverse local notions of the value of water, environment and social structure to purely economic terms (Finewood and Stroup, 2012). It is for this reason that Finewood and Stroup (2012: 76) frame the neoliberal evaluative apparatus, with regard to fracking, as a "general strategy for governing human action" and for

reworking societies‟ perception of and relationship to the non-human world. Like Kinesh Chetty, Finewood and Stroup (2012: 77) explicitly posit that this reworking benefits a select few, even while it impacts deleteriously on others: these authors “feel that these struggles to (re)define the nature/society relationship is about the power to ensure capital flows into specific hands, which will likely result in greater costs to other people and their environments”.

In the neoliberal model, environmental concerns exist in opposition to „development‟, and as such, fracking proponents must define environmental resources in economic terms: if ecology was considered another way it would no longer be quantifiable in a global energy market (Finewood and Stroup, 2012). Under the co-opted neoliberal definition, individuals must work towards their and their nations‟ economic progress by exchanging non-economic resources for economic ones – water, for example, for the income generated through shale gas – as if they were simply interchangeable and/or evenly distributed (Finewood and Stroup, 2012). During this exchange, wherein Jolynn has explained that to be “anti-fracking” is to be seen to be “anti-progress”, and wherein Jeanie and the TKAG have been tarnished as not-in-my-backyard “environmentalists”, questioning the dynamics of the barter is easily dismissed as unpatriotic, self-interested “solastalgia” that opposes a country‟s economic development and the upliftment of the impoverished. Finewood and Stroup (2012: 76) note that this discrediting creates a “knowledge vacuum”, with proponents of hydraulic fracturing – companies emerging from „developed‟ countries, offering a technology touted as an agent *for* „development‟ – left to stand as the expert counterpoint to “anti-fracking” voices; the de facto authority on the risks, costs, benefits of shale gas extraction. As seen with Jolynn‟s *Unearthed*, independent attempts to fill this “knowledge vacuum” are themselves immediately incorporated into the “pro” development vs. “anti-fracking” polemic, ensuring that doubts raised about the information (or lack thereof) provided by fracking proponents are tainted via the disdained association with “green” agenda.

In this way, Finewood and Stroup (2012) show, in the public and media discourse surrounding fracking the neoliberalization of the hydrosocial cycle becomes taken-for-granted, or common sense, while those who speak for the protection of ecology and/or rights – for humans, future generations *or* non-human companion species – are increasingly marginalized. In support of the observations put forward in this thesis, these authors argue that even those who do *not* consider themselves

“environmentalists” and who present rationales and strategies far removed from conservationist mindsets are discursively positioned as “anti-frackers” who are, by proxy, unreasonable and unwilling to absorb costs that would benefit their neighbours: “anti-jobs,” “out of touch with reality,” and/or “prioritizing nature over people” (Finewood and Stroup, 2012: 77). In this way, environmental perception is used as an arena for politico-economic projects, which set the stage for the appearance of a two-sided “debate” wherein rational, economically minded people come up against irrational “environmentalists”, or more simply, economy is opposed to environment (Finewood and Stroup, 2012). What this facade conceals is the diversity of more complex local narratives that make up the imagined “anti-fracking” cohort, within which ecology, seismology, social structure and water *can* be framed in different, noneconomic terms such as life-giving resources or rights, and within which the civil, economic and ecological processes accompanying and leading up to fracking *can* be problematized and reversely regarded as costs that outweigh the financial benefits of shale gas extraction.

The obscuring discursive binary of being part of either a “pro” or “anti” fracking collective and its basis in underlying assumptions about the environment and economy can be seen to work *for* proponents of hydraulic fracturing in industry and state even in contexts where these proponents are not *directly* involved in the dispersal of the terms of the pervasive polemic, as in many of the independent (and at times, self-proclaimed “anti-fracking”) news, media and academic sources that this paper has drawn from for references to the fracking “debate” and for examples of the “anti-fracking” tags attached to Jeanie, Jolynn, Derek et al. As Finewood and Stroup (2012) have shown, it is the omnipresence of this binary which makes it possible for industry fracking applicants to play what Tim Mitchell (2011) has called the illusory role of the neutral information authority. To return to the important caveat raised in this paper‟s introduction, *between* this rational economic authority and the irrational onslaught of the environmentalist “anti-frackers” exists the hypothetical middle ground that this thesis‟ proposal was initially rebuked for not taking as a starting point. If, however, the portraits of Jeanie, Jolynn, Kinesh and Derek presented in subsequent sections have been well-rendered – and well-framed in Finewood and Stroup‟s (2012) analysis – it should begin to appear that this middle ground *itself* is a construction which serves the interests of fracking proponents. This “debate” is *not* between

homogenous “greens” representing environment and informed “pro-frackers” representing economy. For the “anti-frackers”, at least, there is much more at stake.

In Finewood and Stroup‟s (2012) framework, the South Africans whose widely diverse actions and motivations have comprised the focus of this thesis can be seen to be competing with perhaps the most powerful world-making device of our time: that of neoliberal commodification. In this contest, the ability to speak and form solidarities in direct opposition to fracking has been all but closed down by a polemic that predetermines what is able to be said against shale gas extraction, and how it is heard. In this light, that it is only Jeanie le Roux and the TKAG that stand in direct, explicit opposition to government‟s decision to pursue hydraulic fracturing – and that their only ally in this obstruction, “anti” in the purest sense, is a conservative Afrikaans civil rights group trying to survive in post-Apartheid South Africa – is little surprise. Even as Jeanie and her colleagues attempt to expand the terms of the fracking “debate” as it has been given by state and industry, to make room for civil assessment of the governmental procedures and industry information that has led up to the autonomous approval of shale gas extraction in this country, their efforts are conflated in the public view (in press and multimedia) to those characteristic of the faction of “anti-frackers”, and thus “greens”, even by those who think that they are writing or speaking from the same “side” of the “debate”.

Viewed alongside the TKAG, it is clear that the series of alleged “anti-frackers” profiled in the second ethnographic chapter of this paper are all attempting to reimagine or expand the narrative of neoliberal commodification in further unique ways, but at the same time searching for a way to intervene *without* situating themselves in the “pro” vs. “anti” polemic, which would render it impossible *to* speak or imagine otherwise. In order to say or do something to give effect to their varying personal (or, in Derek‟s case, client assigned) mandates to oppose or question the extraction of shale gas in this country, Jolynn Minnaar, Kinesh Chetty and Derek Light have had to develop distinctive strategies to avoid and refuse the terms of the fracking “debate” given by state and industry, and to redefine the idealized middle ground anew.

In his work, Kinesh Chetty has chosen to *appeal* to the economic rationale, removing himself from any direct association with hydraulic fracturing to create an energy alternative out of the sun that will, in its own right, render shale gas irrelevant; all the

while making a profit out of the solar business and thus proving that the allegedly necessary exchange of ecological resources for economic development can take *another,* equally beneficial, yet less risky form. By sticking to this neoliberal logic, Kinesh has been the only figure included in this thesis able to successfully evade media attention as part of the “anti-fracking” front.

For the jarring visual account of fracking that she has presented and the questions that her footage raises in response to assurances provided to the South African public – “misleading information” that the TKAG has already successfully litigated Shell and government for – Jolynn Minnaar has been unable to escape classification as an “anti-fracker”. This is despite her status as a filmmaker; even one who has since moved on to motion picture projects completely unrelated to South African energy futures. In *Unearthed* and the surrounding conversations and press statements documented in this thesis, Jolynn‟s reaction to her enforced categorization has been to attempt to place her film in a *different* middle ground to that set out by fracking proponents: one which takes into account the effect of non-disclosure agreements in rendering shale gas industry the neutral information authority, and (should) compel the state to act differently in its relationship to fracking applicants in response. Again, however, it is the tag of “anti-fracker” that so severely limits the interpretation of her efforts.

Derek Light, who has been *hired* to legally obstruct the commencement of fracking on certain properties in the Karoo, is similarly described as an “anti-fracking leader” and even a “defender of his birthplace”, despite his own candour that his objectives and his work are assigned to him by clients who pay. Once more, these labels can be seen to restrict and distort the appearance of the middle ground that Derek is contesting by scrutinizing the proposed regulations that will govern fracking in this country with an overarching distrust of the companies that have applied to extract South Africa‟s shale gas reserves. In his identification that our “draft regulations were cut and pasted and borrowed from... the USA”, and his work to point government towards “doing the right thing”, Derek, as an attorney, questions the state‟s independence and autonomy from shale industry influence and reframes even the middle or neutral ground of legislation.

What Finewood and Stroup‟s (2012) neoliberal analysis allows us to recognize in the dynamics of the South African fracking “debate” and in the assimilation of the efforts of these supposed local “anti-frackers”, all engaged in trying to shift the binary that gives

them their unwanted name, is the first step towards answering the fundamental question raised at the end of chapter three: how will resistance to fracking ever appear as anything *but* a white, privileged struggle? Working towards answering this question, it is important to acknowledge that the trip to Nieu-Bethesda and the white, middle-class status of three out of the four "anti-frackers" profiled in this study pose questions about race and class in South African activism, particularly in the environmental context, which indicate the opportunity (if not the responsibility) for further anthropological research – exploration into a part of the framed binary that sits beyond the scope and focus of this thesis. Future ethnography in this field might do well to draw from the same body of work that this dissertation now moves to, to provide the vocabulary and conceptual grounding necessary for a recommendation of what practitioners of anthropology and other academic disciplines can and *must* do to improve the state – or reveal the façade – of the South African fracking "debate".

That body of work is Bruno Latour's *Inquiry into Modes of Existence: an Anthropology of the Moderns* (2013), a published but also ongoing, interactive online empirical re-evaluation of „modernity" which proposes an original and useful form of diplomacy in the face of global consensus on human-instigated climate change, brought about through such processes as the extraction of shale gas and the fossil fuels it is intended to replace. In many ways, Finewood and Stroup's (2012) deconstruction of the neoliberal discourse surrounding fracking can be considered to be one small part of the continuing broader project attended to in Latour's *Inquiry into Modes of Existence* (2013), not least for the *Inquiry*'s insight into what it means now to stand against the "modernist" imaginary. The lexicon that Latour offers in this work re-assesses the foundations of „development", providing an optimistic closing point for the dissertation at hand by demonstrating that it is both possible and crucial to reframe opposition to fracking as something other than selfish, privileged "environmentalism" on a planet that now "threatens us even as we threaten it" (Latour, 2013: 9).

TRACING LATOUR'S NETWORKS

In *An Inquiry into Modes of Existence: an Anthropology of the Moderns (AIME)*, Bruno Latour (2013), like Finewood and Stroup (2012) before him, recognizes the neoliberal premise that „development", or what he calls "modernity", is opposed to ecology: that when it comes to activities like fracking, "between modernizing and ecologizing we have to choose" (pg. 8). Much more explicitly than Finewood and Stroup (2012), however, Latour (2013) rejects this premise, aiming for his *AIME* to eliminate this binary's underlying distinction between humankind and the environment, and to embed all human life and activity – economic or otherwise – in the biological, biophysical and metaphysical systems of the planet we share with other species; a planet which has long since ceased to be indifferent to "modernization" projects. In the *AIME* (2013), Latour also sets out to refute the idea that economic „development" or "modernization" will provide its subjects with greater clarity of discernment between the neutral, objective "facts" of the planet they inhabit and the personal and societal values these exist alongside: to be able to determine, for example, what is *scientifically true* about fracking and what is the "solastalgia" of an "environmentalist". What Latour (2013: 48) declares to be working against in these denunciations are those judgments he refers to as "category mistakes", wherein the truth or falsity of any human experience or value is evaluated from within the felicity and infelicity conditions of another, and thus misinterpreted, or actually completely non-interpreted, the way that "anti-fracking" efforts are in the discursive arena dominated by the neoliberal narrative of economic resource priority and "environmentalist" opposition.

Latour's (2013) argument is that the social and natural world that humans inhabit is simply not governed by one exclusive set of neutral "facts" that exist in suspension, waiting and able to be extracted or discovered objectively. Latour (2013) predicates this argument on the persistent, easily observable and everyday human insistence on the reality of different tangible domains or modes of existence, *all created by people*: the assertion that one can perform or produce law, for example, strictly separate from the production and performance of science, which itself is regulated by different truth conditions than politics, or those of economy. What is "true" in scientific rationale, then, such as the evidence that fracking *has* poisoned and harmed people and water and geology, can be equally "untrue" in legal rationale if non-disclosure agreements have

been signed to prevent these scientific "truths" from being recorded; if companies maintain the right to keep the chemical contents of their patented fracking fluids secret; or if lexical caveats are exploited to maintain that fracking itself – the actual discharging of said fluids into the earth – has not caused damage, but the construction of well pads, installation of piping, discarding of wastewater, etc. has (see Green, 2015). As Derek Light has shown, the politics and the production of law (South Africa's fracking legislation) can be inextricably tied up with the imperatives of those purporting the rationality of economy; while the interplay of scientific and legal "truths" can work to position the economically rational proponents of fracking as *the* "truth" authority.

For Latour (2013), examples like these demonstrate that human life and activity does not – *can* not – play out within any one solitary anthropogenically-defined category of existence, and as such there can – or *should* – be no declarations of access to a single "truth" that overrides all others. According to Latour (2013: 58), these examples also show that those who prioritize economic „development", or "modernization", are unable to respect the truths and values of others; and that anthropology, in response, must avoid the mistake that would lead the practitioners of *its* felicity and infelicity conditions "to believe that there is only one way to judge truth and falsity, that of objective knowledge". In the midst of the so-called fracking "debate" this seems particularly pertinent for the anthropological discipline, considering that the existing grounds for speech and involvement are discursively limited to contestation of the environmental damage fracking might or might not cause, and thus neglect (or suppress) the myriad of further concerns put forward. "What we say…", Latour (2013) writes, "…commits us more than we think" (pg. 21). That it is possible to acknowledge the diversity of truths about fracking – to acknowledge that people who oppose shale gas extraction *do* exist – but at the same time to deny the diverse access to reality by referring to *all* these individuals and parties collectively as "anti-frackers" is to generate what Latour (2013: 20) sees as a "monism of being": a constructed homogeneity that contemporary anthropology is obliged by its history (and climate change) to address.

In the *AIME*, alleged factions (like the "anti-frackers" of this dissertation) are referred to as "phantom publics" (Latour, 2013: 351). "Phantom publics", in Latour's (2013) definition, are performative but non-existent "we"s or "them"s, produced to mask the divergent truths, values, voices and capacities they encapsulate. The purpose these phantoms serve is in their discursive utilization, which makes possible the implicit and

explicit denial of the presence of human truths and values that exist in equivalence to the rationality of economic „development", and as such provide *the* critical condition for the dominance of this particular idea of "modernity" even as the climate undergoes perilous changes in response to it (Latour, 2013). In South Africa at present, these phantoms supply the camouflage necessary to portray the current fracking situation as the "debate" between "anti-frackers" and "pro-frackers". As Latour (2013) shows, however, this camouflage is *not* impervious to deconstruction. Building on the theory that its author is perhaps most famous for – the actor-network framework – the *AIME* (2013) provides the anthropological tool required to disassemble "phantom publics" with a view towards a state of "ontological pluralism", which will provide more diversity in the beings discursively admitted into existence, and allow the comparison or weighing of worlds on a more equitable basis (pg. 21). In doing this, Latour (2013) predicts, we will discover entities and beings that no longer had a place in the theory and language of the "modern" world, and for whom suitable terminology will need to be found: human values and experiences will need to be given new representation.

The key instrument of the *AIME* (2013) – the same instrument applicable here, in the dismantling of the "phantoms" of the South African fracking "debate" – is the tracing of networks. "Networks", in the Latourian sense, refer to the discontinuities and heterogeneous elements that produce continuities of human action, inevitably by passing through any number of human-defined domains of truths and values (2013: 33). Stated otherwise, a network is the ethnographically traceable material and semiotic passage through and across different modes of existence, or alleged entities (like law or science) that makes possible the outcome of another entity: an action on the part of an actor. The actor-network theory works counter to the abovementioned idea of domains, as well as against notions of the social and society as separate from „nature" and non-human species and objects, in order to follow the heterogeneous nature of practice. To apply this concept of a network to the domains so central to the fracking "debate" is to negate the aforementioned view that the production of science, or law, or the truth of any one domain, happens in and via that domain exclusively, without touching or being touched by politics, economy, or any other (Latour, 2013: 29). Instead, the *AIME* conjectures that these domains are merely specific networks in themselves: ones defined by the particular trajectories of the dissimilar elements that they comprise. As Latour's (2013: 32) case study of a different natural gas reveals:

> ...under the word “network” we must be careful not to confuse what circulates once everything is in place with the setups involving the heterogeneous set of elements that allow circulation to occur. The natural gas that lets the Russians keep their empire going does circulate continuously from gas fields in the Caucasus to gas stoves in France, but it would be a big mistake to confuse the continuity of this circulation with what makes circulation possible in the first place. In other words, gas pipelines are not made “of gas” but rather of steel tubing, pumping stations, international treatises, Russian mafiosi, pylons anchored in the permafrost, frostbitten technicians, Ukrainian politicians. The first is a product; the second a real John Le Carré–style novel. Everyone notices this, moreover, when some geopolitical crisis interrupts gas deliveries. In the case of a crisis, or, more generally, in the case of a “network interruption” (we have all come to know this expression with the spread of cell phones), the two senses of the word “network” (what is in place and what puts it in place) converge. Everyone then sets out to explore all over again the set of elements that have to be knitted together if there is to be a “resumption of deliveries.” Had you anticipated that link between the Ukraine and cooking your risotto? No. But you are discovering it now. If this happens to you, you will perhaps notice with some surprise that for gas to get to your stove it had to pass through the moods of the Ukrainian president... Behind the concept of network, there is always that movement, and that surprise.

From cooking with one gas to resisting the extraction of another, Latour‟s *AIME* (2013) argues that every course of action can and should be grasped as a unique network. By recording the separate lists of entities enrolled, mobilized, shifted and translated by the different members of a “phantom public”, it is possible to dispel these performative spectres and at the same time, in a mirror view, to deny the organization of existence into domains and to refute the impermeability of constructed borders between nature/culture, reason/unreason, the archaic/progressive, and the objective/subjective, on the part of those who summon these ghosts (Latour, 2013). Describing and denoting the distinct networks of those individuals deliberately incorporated into “phantoms” like the “anti-frackers” can provide a different formulation of the link between their practices and their enforced theorization; making it possible to acknowledge that there *are* people who oppose the extraction of shale gas, but who do so for a wide range of reasons *beyond* environmentalism, driven by unique motivations and following exclusive individual chains of methods, allies and outcomes. The ethnographic chapters of this thesis have documented in as much detail as possible the work, stimuli and products of four very different South African “anti-frackers” with a view to proving just that: in the permitted discourse of the current fracking “debate”, there *is* no terminology suitable to do justice to the myriad values, experiences and efforts that characterize the incorrectly, conveniently homogenized worlds of Jeanie le Roux, Jolynn Minnaar, Kinesh Chetty and Derek Light.

The complicated and exhaustively explored *network* through which Jeanie helps produce the TKAG‟s legal obstacles to fracking has brought her, as an actor, to cross paths with all of the other individuals profiled in this dissertation. This is a rarity:

Jolynn‟s network has never included Kinesh Chetty, while Kinesh‟s has never brought him into contact with Derek Light. Even within the TKAG, the fluctuation of volunteers and the status of Jonthan Deal exemplify that the “anti-fracking” front is not a cohesive one. As such, Jeanie le Roux‟s network – that of a young female full-time volunteer relying on other volunteers (with their own values) for manpower and finance, to give effect to her organization‟s self-appointment as a “civil watchdog” opposed to the handling of fracking applications by the state and the dissemination of information by fracking proponents – cannot be corresponded to that of Jolynn Minnaar, whose “anti-fracking” product is actually just a film: an award-winning piece of art she was trained to produce, that she makes a living from, that she worked with motion picture industry professionals on, and that she will follow with movies unrelated to shale gas. The explicit purpose of *Unearthed*, again, is not even to promote resistance to fracking, but to encourage interrogation of constructed “truth” authority and its economic basis.

Of the “anti-frackers” profiled in this paper, the value that Jeanie le Roux places on rights and civil accountability bears most resemblance to Derek Light‟s work, but even this parallel is rendered null by the separate networks of personnel, resources and approaches that Jeanie and Derek rely on; one with his own legal team and expertise and one forced to rely on the attorneys of AfriForum; not to mention that Derek‟s “anti-fracking” mandate is assigned to him by clients, and Jeanie‟s by her personal hope that “fracking will serve as a catalyst for movement towards recognising humans as part of the ecological-social system, rather than viewing the environment as a static phenomenon and a luxury „retreat‟ for the rich” (Mackay, 2013). While Derek produces “anti-fracking” sentiment by pointing to the influence of industry and economy on politics and legislation from his supposedly embedded position *in* the „exclusive‟ domain of law, Kinesh Chetty plies the same trade he would have if fracking hadn‟t been announced as an energy future for South Africa. As local director of German Maxx Solar Energy and as entrepreneur within the „distinct‟ realm of economy, Kinesh uses his international networks to manufacture the same solar power systems he would have without the approval of fracking, in his aspiration to demonstrate that the economic rationale and neoliberal model of resource exchange *can* be realized in a manner that links environmental values and economic profit priorities if – and only if – the foremost objective of an energy resourcing project is really to benefit the poor, who feel the effects of such projects, and climate change, most directly (Perry, 2013).

CONCLUSION

BusinessDay columnist Simon Reader (2013) insists that "the prospect of fracking in the Karoo narrows down to two conflicting scenarios – the possibility of inflicting some environmental damage (however inconclusive or discredited existing claims featured in foreign examples are) versus the certainty of losing an opportunity that would potentially boost the country". Following the research process that has produced this dissertation, I am more inclined to agree with another BusinessDay writer, Saliem Fakir (2013), whose published response to Reader's column is surmised below:

> The anti-fracking movement is a mix of people from across the political spectrum with different ideological leanings and values. All they have in common is their opposition to fracking, for reasons that are more than just technical facts... fracking is as much about technical facts as it is about public policy values and choices. Yet Reader wants to focus only on one set of concerns, the technical arguments... to argue that environmentalists are anti-development and anti-poor. These are unfounded claims, especially if he says most environmentalists are leftist. Among the abiding interests of leftists are social justice and inequality, and they do not see environmental issues as inseparable from other economic and development concerns... There are many countries that have vast gas and petroleum resources, yet their people are still mired in poverty and underdevelopment. There is enough good economic literature that points to the reasons for this paradox. Claims about the economic promise of shale gas need to be treated with doubt and scepticism. It may bring windfalls to a few people only, with the general populace seeing no benefit at all.

The fracking "debate" in South Africa is a fantasy which serves those "few people" that Fakir (2013) refers to, and does so particularly well. The scenario at hand in the build-up to shale gas extraction in this country is not a contest between an "anti-fracking" cohort with a shared "environmentalist" agenda and the faction of the economically rational who have the best interests of the population at heart. Like the individuals profiled within, this thesis posits, explicitly, that there is much more to take issue with in the South African government's approval of hydraulic fracturing than the environmental and health damages this process may or may not cause to humans and non-human companion species.

It is the anthropology of Latourian "networks" which allows us to see this. Such an anthropology makes clear the "category mistakes" which ensure that those opposed to fracking and those who propose it talk *past* rather than *to* each other, and that certain voices are muffled in this (imagined) conversation. Like Latour's *AIME*, this paper stands as proof that there *are* truths and rationalities that exist in equivalence to those of economy, and that the practitioners of anthropology are well-positioned to highlight them. Contemporary ethnography has the potential to provide the interpretive key appropriate to understand what is (and isn't) being said in the midst of deliberately

rendered “phantom publics”, and to show that “category mistakes” cannot be corrected through the idealized gathering of “objective” knowledge (Latour, 2013).

By talking *of* the subjects of study *to* the subjects of study, an ethnographer can, as Latour (2013: 482) says, “seek the help of the collectives whose competencies we have rejected in the belief that our duty was to bring them out of their archaism by modernizing them”. In doing so, this dissertation has sought to expand and facilitate the dialogue taking place (or not taking place) between the proponents of fracking and those South Africans who resist it, providing perspective on the different challenges faced by those enacting this tainted form of „activism for the privileged“. The proposal made for future ethnography, so important and useful in the face of the changing climate, is to use this word – *dialogue* – as a starting point for better, more practical recommendations of ways to speak in and about the environment vs. economy polemic; particularly in media and journalism.

There is nothing to lose: as Latour (2013) points out, if those purporting the rationality of „development“ and economy could start to express and acknowledge the range of existent truths and values beyond their own, it would no longer be our responsibility to critique them. If they don“t – or if they refuse – then it will no longer be our responsibility to respect them.

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APPENDIX:

TOURIST MAP OF NIEU-BETHESDA