

Science and culture in the Kerguelen Islands: a relational approach to the spatial formation of a subantarctic archipelago

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ABSTRACT: The Kerguelen Islands are devoid of a permanent population, but are nonetheless interlinked to past and current human activities that have shaped their subantarctic landscape. In the past decades, the archipelago has become a French outpost for scientific research where scientists, support staff, research assistants, and travelers assemble during temporary missions. In this article, I present the spatial formation of islands as relational in order to explore how the material and the cultural converge to make the Kerguelen Islands a place of both mundane practice and global interconnection. These spatialities intertwine the features of the landscape with pre-departure preparations, animal encounters, scientific rigour, daily routines, and past human activities. I advance these narratives by analyzing 18 blogs of French sojourners who have spent extensive time on the Kerguelen Islands. I ultimately give islands without a permanent population a character unlike that of isolation and contemplation as is usually attributed to cold-water islands of the (sub) polar seas.

Keywords: dwelling, materiality, narrative analysis, practice, relational geography, subantarctic islands, scientific research

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Introduction

The subantarctic islands are some of the most remote places on the globe. Their access is complicated not only by distance, but also by the unfavourable weather conditions typical of their latitude. These islands did not harbour native inhabitants at the time of their discovery by European explorers, and few of them have been permanently settled since then. However, the non-native and transient character of the current populations of most subantarctic islands does not ultimately devoid them of a culture. Of interest for this article is the long history of activity on the Kerguelen archipelago, but most particularly its development into a French outpost for scientific research. Hince (2008) contends that there exist contemporary works, especially in ecology and history, positioning the Kerguelen Islands as a site of continuous human activity (see for instance: Arnaud & Beurois, 1996; Bajard, 1964; Delépine, 2002, 1976; Druett, 2007, 1983). In this article, I turn to relational geography to uncover the multiple actors and meanings that give the Kerguelen Islands their special character. I do more than look through historical or scientific texts to conceptualize the spatial formation of this subantarctic archipelago without a permanent or native population. I explore the Kerguelen archipelago instead through the diary writings of those who have sojourned on it. I do this through the analysis of 18 blogs of French sojourners who have spent from 4 to 13 months on the Kerguelen Islands.

These sojourners are mostly researchers and civic volunteers affiliated with scientific projects from *L'institut polaire français Paul-Émil Victor* (IPEV), but there are also tourists and

writers amongst them. On their blogs, these individuals describe the landscape they encounter, as well as detail the practices behind their pre-departure preparations, scientific work, encounters with animals, daily routines at the base, and observations of past human activities around the islands. In their accounts, the material and the cultural converge to make the Kerguelen Islands a place of mundane practice and global interconnections. These spatialities are significantly influenced by the interrelation of scientists, volunteers, animals, vegetation, buildings, historical remnants, and various equipment. These blogs are a window into the everydayness of being in the Kerguelen Islands, and into the latter's connection to the world.



Figure 1: Topographical and locational map of the Kerguelen Islands.

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I begin this article by giving a brief historical overview of the Kerguelen Islands as a place of discovery and industry, literary imaginary and scientific research. Secondly, I present different geographical concepts related to hybridity, material culture, and mundane practice that inform a relational approach to island studies. The special character of cold-water islands with transient populations, like the Kerguelen Islands, is arguably under-researched in island studies. The study of these islands can offer island studies particular insight into the materiality

behind travel preparations, human and non-human interrelations, and the continuation of culture. By presenting my narrative analysis of the blogs through three analytical categories (materiality from the mainland, the contact zone with animals, and culture and continuation), I outline some of the particular ways through which such remote islands without a permanent population are culturally formed. This analysis infuses these islands with a different character than the one they acquired from their description through narratives of isolation and contemplation. It also displays more of their substance as an inhabited realm than what can be found in historical, literary, or scientific accounts. I lastly encourage more research into the lived experiences, interrelations, and practices that form islands, especially those without a permanent or native population, like those found in the subantarctic seas.

The Kerguelen Islands

The Kerguelen Islands were discovered in 1772 by French explorer Yves Joseph de Kerguelen de Trémarec. This subantarctic archipelago in the southern Indian Ocean is now administered as one of France's five subantarctic and Antarctic districts, together called *Terres australes et antarctiques françaises* (TAAF) (www.taaf.fr/). The archipelago is composed of a main island of 6 675 km², La Grande Terre, and of 300 smaller islands and islets totaling 7 215km² (see Figure 1). As all other subantarctic islands, the Kerguelen Islands were uninhabited at the time of their discovery. After a history of sealing and failed attempts at making the islands inhabitable through farming practices, the Kerguelen Islands became in 1949 a permanent scientific outpost for French polar research (Delépine, 1995; Fleury & Raoulx, 2016; Hince, 2008). These islands are some of the most remote on the planet and can only be reached by boat. The vessel *Marion Dufresne* supplies food and equipment to the French scientific base through four yearly rotations, departing from La Réunion, another French territory. Around 100 researchers, civic volunteers, and support staff sojourn at the Kerguelen Islands' base, Port-aux-Français, at once (see Figure 2). They do this for often up to a year, and then rotate in their duties and study of the local geology, ecology, and meteorology. All research operations on the TAAF are managed by France's polar research institute, *L'institut polaire français Paul-Émil Victor* (IPEV) (www.institut-polaire.fr/). A restricted number of tourists can embark on the *Marion Dufresne* during its rotations to visit the Kerguelen and the other French subantarctic islands it supplies (around 8 or 12, depending on the amount of space left). The tourists are mixed with crew, staff, and scientists, and will get the chance to stop over at Port-aux-Français in the Kerguelen Islands, Alfred-Faure in the Crozet Islands, and Martin-de-Viviès in the Amsterdam Islands.

Islands are never simply physical objects of discovery; they are also made through careful and exclusive design from the mainland (Baldacchino, 2012; Baldacchino & Clark, 2013). Islands are made into the images that are associated with them, such as paradise on Earth, pristine natural reserves, or locales of isolation (Baldacchino, 2012; Dening, 2004; Gillis, 2004; Kneale, 2017). The island is always connected to the mainland through not only physical contact, but also through symbolic frames of references, often formed and legitimized in the writings of those who know the island through their travels or the travels of others. After his brief visit in 1776, Captain James Cook was compelled to name the Kerguelen Islands Desolation Islands. Similarly, explorers, travel writers, and novelists have depicted the Kerguelen Islands and their subantarctic counterparts as desolated, and their landscapes as rugged and majestic in various works. Notably, Jean-Paul Kauffman (1993) wrote *L'Arche des Kerguelen: Voyage aux Îles de la Désolation*. The book is an account of Kauffman's voyage to the Kerguelen Islands during the summer of 1992 where he seeks to discover the impressive Arch of Kerguelen. Dutton (2009) calls this literary work an elevation of the natural beauty of the islands through the French imperialist imaginary. Hince (2008) points out that Kauffman (1993) sees no continuation in the history of the Kerguelen Islands, perceiving

human activity there as only transient. In fiction, the islands are featured in Jules Verne's (1897) *Le Sphinx des Glaces* and in Edgar Allen Poe's (1838) *The Narrative of Arthur Gordon Pym of Nantucket*. These two adventure novels illustrate stories of death and survival in icy desolated landscapes. More recently, but still on the themes of solitude and isolation, Patrick O'Brian (1978) wrote the historical novel *Desolation Island*.



Figure 2: A view over Port-aux-Français, administrative base of the Kerguelen Islands, located in the southeast part of the main island on the Péninsule Courbet.

© Franek2, https://commons.wikimedia.org/wiki/File:Route_66,_Port-aux-Fran%C3%A7ais,_French_Southern_and_Antarctic_Lands.jpg

Islands in the polar and subpolar seas diffuse their very own imaginaries. Riquet (2016) argues that travel writers to islands covered in ice and snow more often philosophize the meaning of islandness by writing of them in poetic and contemplative ways, rather than through narratives of economic survival, which is more likely to be used on warm-water islands where resources are more obviously abundant and conditions more favourable to humans. Through her analysis of Antarctic travel writing, Dutton (2009) holds that images of discovery and conquest of a land unknown and far away infuse the minds of sojourners to remote cold-water islands like the Kerguelen Islands. Similarly, in tourism discourses, the cold-water island, especially the one of the (sub) polar seas, exudes notions of adventure and discovery, compared to the warm-water islands where a slower pace of activity is expected in the sea, sun, and sand (Baldacchino, 2006a, 2005; Kaae, 2006). In his comparison of cold- and warm-water islands, Baldacchino (2005, p. 186) writes about the former: “Pleasure is derived from being overwhelmed by, succumbing to and respecting the environment. Wide open vistas are everywhere.” Islands such as the Kerguelen Islands are thus known to emanate mixed feelings of desolation, mystery, and adventure in amazing landscapes worth contemplation.

Hince (2008) reminds readers that the subantarctic islands are nonetheless places of great human activity, though their lack of a native and permanent population could be seen as voiding them of a cultural heritage and of a sense of place. Human geographers define sense of place as the meaning that a place evokes to those living in close relation to its social and material constituents (Cresswell, 2013). Place are not mere physical entities, but rather realms of direct human involvement to which people assign meaning (Buttimer, 1993; Buttimer &

Seamon, 1980; Tuan, 1977, 1974). As pointed out earlier in this section, the Kerguelen Islands have had their fair share of inhabitation, and this is visible in their landscape. For instance, the archipelago is the site of contamination by invasive species (feral cats and rabbits notably), and there are many physical remnants of past attempts at introducing grazing cattle and developing an animal oil industry (Delépine 1995; Fleury & Raoulx, 2016; Hince, 2008). More recently, the Kerguelen Islands have emerged as a very tangible laboratory for French polar research, leaving traces of scientific exploration in the archipelago's landscape. The actual isolation of remote islands has been questioned by scholars of island studies, importantly with Deloughrey (2007) establishing this trope as an instrument of colonization. These geographies of the imagination are important to deconstruct for post-colonial analytical purposes, but they often overlook the tangible spatial practices through which island cultures and senses are shaped over time (Riquet, 2017).

The spatial formation of islands: substance, practice and relations

Island scholarship is increasingly adopting a relational turn in its spatial conception of islands (see, for instance, Anderson, 2012; Pugh, 2016; Steinberg & Peters, 2015). This is a recognition that the conceptualization of islands cannot be solely reduced to their isolation and specificity, though physically they might be remotely located from the mainland (Hay, 2006). Relational geographers have defined the world as a realm of spatial interconnections where rootedness and essences should be replaced by hybrids and networks (Cresswell, 2013; Murdoch, 2006). It is impossible to retain any particular sense of place in the wake of increased mobility and intermixing (Amin 2002; 1997; Escobar, 2001; Massey, 2005, 1991). As Massey contends (2005, 1991), it is better to think of a place as having many senses, where the multiple identities of people translate into multiple spatial identities. Hay (2006) therefore argues that it is important to study islands as they are experienced by social beings in order to capture these many senses formed through local and extra-local relations.

Baldacchino (2012, 2006b) and McCall (1996, 1994) express this concern in island studies by encouraging the definition of islands *on their own terms*. As Riquet (2017, p. 294) adds, there is an inclination “to move away from a discussion of islands as tropes for a set of preconceived meanings in favor of a precise examination of the textual practices through which islands are spatially conceived and reconceived.” With such an analysis, the island is to be understood as holding many identities, juxtaposed on top of each other. The island can be defined as having an interior and an exterior, meaning that it is connected to an exterior world, yet lives its interior in isolation; it is fictional on the exterior, yet very real on the inside (Baldacchino, 2012; Riquet, 2017). As Baldacchino (2005, p. 248) writes: “An island is a world; yet an island engages the world.” Hince (2008) sees this dynamic in the subantarctic islands as she collects stories and observations of wreckage, industry and species invasion to simultaneously describe these islands' connection to the world and their distinct cultural history in light of this interactivity. It is ultimately localized responses to extra-local processes that form the unique character of a place (Amin 2002, 1997; Escobar, 2001; Massey, 2005, 1991).

An attempt to study the relational character of the island should thus bring attention to the composition of cultural and material practices (Pugh, 2016). In a relational conception of the world, it is important to consider the interrelations people have with their material surroundings (Anderson, 2012; Thrift, 2008; Whatmore, 2006, 2002). Entities exist in relation to each other, and these relations are never stable (Latour, 2005), not only because of global interconnectivity, but because of the character of human and non-human life. Anderson (2012, p. 575) uses the surfed wave to describe the formation of space through “the meeting of movements and the pausing of practices.” Surfing would not exist as it does without the particular components and movements of the sea, which are both rhythmic and unpredictable (Anderson, 2012). Considering materiality gives objects a form of agency that

entangles them in the realm of the social (Latour, 2005; Whatmore, 2006, 2002). Whatmore (2006, 2002) explains that materials have their own agency, which affords humans capabilities. Objects, technologies, plants, and animals mediate the actions that connect bodies with their surroundings (Crouch, 2003; Michael, 2000; Power, 2009). The interweaving of these entities highlights that places are what scholars within island studies have often come to refer to as assemblages (Anderson, 2012; Pugh, 2016).

Relational approaches help scrutinize the way people inhabit their world by encouraging the consideration of mundane practices, material substances, and social interrelations in the study of spatial formation (Ingold, 2011; Olwig, 1996). Interesting theoretical development has come from landscape scholarship. For instance, Olwig (1996), contesting notions of landscape as mere scenery and aesthetic background, advocates the conceptualization of the latter's emergence through a temporal process, which requires an analysis of the changes that mark the dynamism of culture. There grew an interest within relational geography to study the mundane practices of everyday life as the formation of space increasingly became conceptualized through embodied practices and experiences (Crouch, 2003; Ingold, 2011; Lorimer, 2005; Simonsen, 2012; Thrift, 2008). For instance, Crouch (2003) contends that gardens are not just floral arrangements, but the product of a set of mundane practices such as kneeling, weeding, and planting, done by a gardener in close connection to the landscape. Also in terms of landscapes, Ingold (2011) proposed that these arise from the skillful activities and practical engagement of those dwelling therein. Those who dwell form a landscape through movements of incorporation as the processes that give rise to their human activity weave themselves in their environment.

The relations humans entertain with the various complex elements and processes of their world are important to consider in a conception of dwelling that does not fall back on essentialist and romanticized spatial discourses (Cloke & Jones, 2001; Wylie, 2013, 2003). Any conceptualization of dwelling needs to make sense of the routes, relations, contexts, networks, practices, and assemblages shaping spaces, rather than simply adopt meta-narratives of being (Cloke & Jones, 2001; Thrift, 2008; Whatmore, 2006, 2002; Wylie, 2013, 2003). In other words, an interest in the experience of inhabiting space must take into account the transient, confusing, spontaneous, and complex character of human life. These moments leave traces of themselves in a landscape, attesting to the temporality of material and cultural practices within a dynamic world. For example, Cloke and Jones (2001), speaking of an orchard, acknowledge that the art of pruning shapes the character of fruit trees in orchards, but that fruit trees themselves shape the nature of pruning. The practice of pruning is furthermore influenced by an array of extra-local phenomena such as marketing strategies, technological development, and global market prices, making the orchard an assemblage of local and extra-local phenomena (Cloke & Jones, 2001).

Vannini and Taggart (2012) assert that relational approaches interested in dwelling and practice have been lacking in island studies. This is even the case with calls within the discipline to study islands on their own terms, which would imply an interest in the experiences behind the material and cultural assemblages of island spaces. Applying Ingold's (2011) and Olwig's (1996) work to island studies, Vannini and Taggart (2012, p. 235) speak of *doing islandness*, describing this as "a set of tasks unfolding in front of its inhabitants," to give islands their practical sense. This is a way to apprehend islands differently than through the symbolic lens of the exotic, isolated, or mythical, but rather through the mundane experience of inhabiting the island. The authors explain that the island is formed through a set of tasks such as catching the ferry, driving from one end to the other, or kayaking along the shore (Vannini & Taggart, 2012). The material realm becomes meaningful as practice implies an engagement with physical elements such as tools and equipment (Crouch, 2003; Haldrup & Larsen, 2006; Ingold, 2011; Walsh & Tucker, 2009). The water surrounding the island is no longer a symbolic barrier, but rather a physical space that affords the islanders

practices like fishing and recreation (Vannini & Taggart, 2012). Through this type of analysis, the island and its landscape are presented as a very real practical realm composed of material substances, such as water and outdoor equipment, and cultural experiences, such as leisure and work activities.

The Kerguelen Islands in the blogs of French sojourners

The subantarctic islands are a special case in point to study the formation of island landscapes and cultures since they have never hosted a permanent population. It remains that the Kerguelen Islands are inhabited by French scientists, research assistants, support staff, and tourists who exist in relation to the archipelago's physical and symbolic space. A number of these sojourners have documented their sojourn on the Kerguelen Islands through personal blogs which they made freely available on the Internet. I have studied 18 of these blogs in order to build a narrative related to the everydayness of temporarily inhabiting the Kerguelen Islands, as I sought to describe their spatial formation. Eight of these blogs were written by civil volunteers affiliated with scientific missions to the Kerguelen Islands. These volunteers take part in missions that generally last 13 months and provide technical support during the manipulation of the animal and bird specimens under study during field research. This implies mostly tasks of attaching and fetching geolocation devices on animals such as elephant seals and marine birds, surveying their population, and noting biological and ecosystem changes. Five blogs were written by support staff to scientific missions: one assistant doctor, two electronic engineers, and the two others identified themselves as support staff only. These five individuals sojourned 12 or 13 months on the Kerguelen Islands. Two blogs were written by researchers on scientific missions, one accompanied an international meteorological campaign, and the other worked for the IPEV in thermo-biology. These individuals stayed for shorter terms on the Kerguelen Islands, respectively seven and four months. Three blogs were written by travelers who visited the Kerguelen Islands for personal enjoyment. Their journeys lasted around two months, the time it takes for the *Marion Dufresne* to provision its French subantarctic territories and leave back for la Réunion after its own sojourn.

As the scientific outpost is administered by the IPEV, it is French scientists, support staff, and civic volunteers that embark on these sojourns. The blogs were thus all written in French, which did not pose a problem for this study as my first language is French. These blogs were written between 2010 and 2017. I studied extensively their content, including their welcome pages, diary entries, pictures, and the other details the writers provided about, for instance, the geography of the islands and the description of their scientific projects. The blogs were analyzed using narrative analysis. In the social sciences, narrative analysis is aimed at understanding how individuals perceive themselves within their social world (Creswell, 2013). This study interests itself in the spatial experiences of humans involved in the material and cultural formation of a group of islands. Narrative research illuminates the particular features of the lives of the individuals it seeks to understand, and thus provides insight on social reality (Freeman, 2004). Czarniawska (2004, p. 17) explains: "narrative is understood as a spoken or written text giving an account of an event/action or series of events/actions, chronologically connected." Freeman (2004, p. 79) contends that narrative research is a "project of articulating and explicating meaning." Narrative research suggests social possibilities, rather than finds a definitive truth

I divided the narratives I encountered into three categories which highlight the relational character of the Kerguelen Islands as a subantarctic outpost for scientific research: 1) materiality from the mainland, 2) the contact zone with animals, and 3) continuation and culture. These categories are the result of the coding of the text read in the blogs. Coding implies the researcher aggregates text into specific categories of information while going meticulously through the dataset, assigning these codes their own labels (Creswell, 2013).

After reading and re-reading carefully the many entries, I was able to extract meaningful themes from the stories, thoughts, epiphanies, and descriptions of the sojourners, and then label them with the keywords that would outline their experience of inhabiting the Kerguelen Islands.

Materiality from the mainland

For the sojourner-to-be embarking on pre-departure preparations, the physical substance of the Kerguelen Archipelago is significantly known in terms of its uninviting conditions for human life. Many of the bloggers started their online journals with entries on their pre-departure preparations, where they described the objects they were to bring with them on their journey to a remote area with harsh and unpredictable weather. Researchers interested in travel and tourism acknowledge that objects are a significant element behind the practice of travelling, may it be shoes, cameras, guidebooks, or sporting equipment (Haldrup & Larsen, 2006; Walsh & Tucker, 2009). Such objects attest to the tangible character of travelling. The bloggers' accounts reveal that these individuals' relation to the Kerguelen Islands is mediated through the equipment that will engage them with a physical landscape. The objects at stake are warm and impermeable clothes to fight back the harsh weather conditions, but also the technologies that will keep them connected to the mainland in this desolated area, as well as those objects that will keep them entertained, like books. In this quote from *Le blog de Didier*, the reader gets a sense that the material preparations for a sojourn to the Kerguelen Islands is a serious matter:

The physical preparation of this stay is above all a matter of judicious choice of equipment to bring along. The matter is made easier by the *Guide for Wintering* document provided by the TAAF in which we find a whole lot of diverse and varied recommendations. But above all, we must rely on information gleaned here and there from colleagues who have already been there. Internet is also, of course, a good source. (<http://kerguelen.over-blog.com/article-18848456.html>)

This quote highlights that the sojourners' choices of equipment are made by engaging with various guidelines and perspectives, but also with the thought of inhabiting a real physical space. Many of the bloggers made allusions to the *Guide for Wintering*, which implies that there is much to learn before inhabiting an environment like the one of the Kerguelen Islands. The TAAF's *Guide for Wintering* informs the sojourners of the mundane and practical aspect of living on a subantarctic archipelago. This physical space is presented, for good reason, as harsh and desolated, meaning that, to these individuals, Subantarctic is known in this instance through a material engagement with narratives of survival.

Also as part of the pre-departure preparations, some bloggers describe the scientific workshops they need to attend before embarking on their mission to the Kerguelen Islands. For the civil volunteers, there is a pre-departure program in France which they need to attend. The attendance of this session is to prepare the scientific teams for the routines of their scientific work. The writings of Maxime Passerault on his blog *Maxime Passerault, Ornitho pour la 62ième mission aux Kerguelen* attest to the organizational and mundane aspect of the preparation that volunteer technicians have to go through:

On the menu for this preparation [in France during the program days]: bibliography on the ecology of species, familiarization with scientific protocols, ordering of the wintering schedule, preparation of trunks... (<http://maximeker62.canalblog.com/>)

Such descriptions of the activities planned for pre-departure programs illustrate the labour behind carrying out a scientific project and travelling to its location. Science is something that takes organization; it imposes rules and guidelines on those who want to do it. These organizational tasks are a significant part of the journey to the Kerguelen Islands for the

member of a scientific team. These pre-departure arrangements framed within the context of scientific work and survival skills already reveal that the Kerguelen Islands are a space filled with material entities to engage with in a particular guided and routinized manner. Even before they are physically reached, islands are experienced in specific ways through practical and tangible matters. It is not solely through an imagination fostered by literary work that the Kerguelen Islands are known, but also through guidelines of survival, the lens of the scientific method, and the imposition of order.

Interestingly, this kind of analysis gives agency to the physical and natural entities of the Kerguelen Islands of the kind Latour (2005), Whatmore (2006, 2002) and Anderson (2012) advocate, where the archipelago's substance has a way of guiding human movement. The Kerguelen Islands have a very real substance that requires humans to approach it seriously and which makes it an interesting setting for scientific research. The agency of the substance of the Kerguelen Islands becomes even more apparent as the sojourners engage with its non-human elements in real time.

The contact zone with animals

The sojourners involved in scientific missions are generally dutiful and elaborate in their description of their scientific work in their blogs. Many of the descriptions found on the blogs give clues about the way the Kerguelen Islands are formed as a relational realm of cultural and material practices, carried out closely in tune with the local natural environment. Interesting examples of the role of science in mediating human encounters with animals can be derived from the work of the blogging ecologists. Scientific observations in the field are a rigorous practice that necessitate patience and precision. The bloggers on ecological scientific missions (mostly in ornithology and thermal biology) on the Kerguelen Islands seem very aware of this as they write about their tasks as researchers and technical support staff. As Jones (2012, p. 578) would explain, there is "total concentration and mental immersion in the task at hand" as the components of the world require immediate involvement. These tasks include, for instance, surveying populations and attaching tags and transponders to birds and animals. These two quotes from the blogs *Tranche de vie aux îles Kerguelen* and *Récit d'un hivernant ornitho-écologue de la 60e mission aux îles Kerguelen* illustrate how two sojourners affiliated with ecological scientific projects speak of their tasks of handling and observing various birds and animals out in the field:

Penguin chicks should be taken at the beginning of molting to be weighed, measured and transpondered. Next comes another manipulation: exchanges of eggs.
(<http://thibaultblf.blogspot.se/2012/>)

Around the boat, Barau's petrels, wedge-tailed shearwaters, brown noddies, white-tailed tropicbirds and sooty terns accompany us. A day of calm sea also allows us to observe a group of sperm whales and a small whale! Not a minute of respite aboard, my ornithology colleagues and I track birds and marine mammals (counting them for 10 minutes every hour of the day).
(<http://alexaukerguelen.blogspot.se/2009/12/le-marion-dufresne-laventure-commence.html>)

Dutton (2009) proposes that the contact zone in the desolated subantarctic archipelago is not with an indigenous population as Marie-Louise Pratt (2008) proposed in her treatise on colonialism, but between the human and the non-human population of the island. Currently, in the Kerguelen Islands, the asymmetry of power of this zone of contact can be found in the discourse of science imposed on the fauna and flora by the transient inhabitants. The development of the scientific method, based in empiricism and objectivity, has encouraged

the separation of the cultural realm from the natural realm (Foucault, 1970; Latour, 1993). The animals of the Kerguelen Islands are inventoried and scrutinized as they are framed as elements of the methodical and objective scientific world. This is a different form of imperialism, which nonetheless subjugates a native population to a foreign power, and which affects the culture, landscape, and sense of the island.

It would be simplistic, however, to content ourselves solely with this discursive analysis. When the matter is approached in relational terms, it is apparent again that the entities of the Kerguelen Islands project their agency on its temporary inhabitants. The subantarctic animals in their habitation of the seas, air, and ground ultimately guide the movements of the scientific groups through the islands, as the latter seek contact with these populations. It is the kind of agency that Whatmore (2002) gives to animals in her more-than-human geography. In this case, science finds its form in the substance of the non-humans it seeks to make sense of, as it is used to make sense of these non-humans. The human and animal interrelation in the formation of the Kerguelen Islands is well illustrated in this sentence from Maxime Passerault who is involved in ornithological fieldwork. As he describes at length on his blog the stages and exercises of the project he will be involved with on the archipelago, he comes to this conclusion: “My travels and activities on the island will be determined by the protocols of these programs and therefore timed to the phenology of the birds” (<http://maximeker62.canalblog.com/>).

Through this quote, the reader can appreciate how the research technician and his scientific measures are formed through the living elements of the landscape with which he engages. The ecology of the Kerguelen Islands guides the mundane actions that moves the scientific sojourner through the landscape. This works to form a space where materials and cultural practices are highly intertwined. What is apparent by looking at human and non-human relations during this scientific work is the way that these interrelations influence the way humans inhabit the island space. Human movements become rhythmic, as if in tune with the flows and movements of the substances of their world (Ingold, 2011; Thrift, 2008). As Vannini and Taggart (2012) argue, the characteristics of the island afford to humans a certain set of very real practices, which in their turn impregnate the island landscape as a realm of practice. In this case, it is not only water and land that afford particular practices to islanders as Vannini and Taggart (2012) have already explored, but also the special animals with whom humans co-exist.

Culture and continuation

In the blogs of the sojourners, the breathtaking subantarctic landscape is often juxtaposed with routines of mundane societal practices at basecamp and observations of scattered signs of past human activity around the islands. The majority of the bloggers dedicated entries to discuss everyday life in the Kerguelen Islands, informing their readers about the organization and uneventful character of being on the archipelago. The sojourners describe, for example, the tasks that need to be done do keep the micro-community afloat, like cleaning, and their leisurely activities, like playing football. An example of these descriptions of everyday life is seen when sojourners tell about the organization of meals and the food they are served. These two quotes from different blogs, *Un hivernage aux îles Kerguelen* and *Sur la base subantarctique de Port-aux-Français*, exemplify this type of description surrounding meal times that presents life on the Kerguelen Islands as mundane and structured:

In the cabin [at a field station], we have practically all that can be preserved that could be found in supermarkets. Preserves, cooked dishes, juices, milk... (<http://elie-ornithoker-64.blogspot.se/2013/12/premiere-manip-mayes-lile-des-ornithos.html>)

On the base, meals are taken at fixed times, except breakfast which works on a time slot. Meal places are not reserved. Each person sits on either side of a large table. (<http://www.christianegeoffroy.com/blogs/blog/archipel-de-kerguelen/page/4/>)

Reading these blogs, one learns that there are no staff hired to work at the base in positions such as cleaning, bartending, fire patrolling, or collecting garbage. These positions are filled voluntarily by sojourners and coordinated with relative structure. One sojourner (who does not identify himself by name) explains on his blog *Kerguelen: On dirait le sud...*: “From time to time it is necessary to refuel the huts, to do some reparations, to bring back the garbage etc., etc., etc...” (<http://ker64.canalblog.com/>). By detailing life on a remote scientific outpost, these narratives reveal its routinized and uneventful character. Unsurprisingly, the Kerguelen Islands acquire a different identity than the one of dreams of adventure and contemplation that their status as remote cold-water islands proffers them as they become spaces of communal habitation.

Mundane activities are important to consider in the analysis of relational space because they are behind the substance of the landscape (Crouch, 2003; Olwig, 1996). In the case of the Kerguelen Islands, though their inhabitants are transient, culture is formed through continued daily involvement based, not only in scientific work, but in building a space of everyday life that includes mealtime routines, socializing, leisure time, maintenance, cleaning activities, etc. The continuation of human activity on the archipelago is also seen in the relay of information from one scientific mission to another. Some bloggers detailed their preparations before their departure back to France to ensure that the participants in the next mission would have the information they needed to continue the scientific project. The continuation of French scientific involvement in the Kerguelen Islands is also apparent in the observations of the bloggers. For instance, Elie Gaget, a civil volunteer with the blog *Un hivernage aux îles Kerguelen*, informs the reader that the IPEV has been monitoring almost 400 rabbit burrows on the archipelago since 1986. As the employees of the IPEV rotate in their duty, they preserve the culture of science of the islands.

The participants of this micro-community might not inhabit the archipelago permanently, but the former is organized at its own rhythm, preserving itself through time in these otherwise humanly desolated islands. Ingold (2011) argues that there is a temporality to a landscape, where human activities weave themselves in the fabric of the latter through time. The activities at the base of the Kerguelen Islands attest to the presence of an interchanging human population that inscribes its presence in a momentum of continuation on the territory. Interchanges and transitions are central elements to this particular condition of dwelling (Wylie, 2013, 2003). Regardless of their non-permanence, through their various activities, the individuals who nowadays pass through the Kerguelen Islands participate in the latter's consolidation as an outpost for scientific research.

Many sojourners mention and illustrate through photography their encounters with traces of past human activities during their own explorations and while on missions out in the field, such as seeing rundown infrastructure like old fences and landing docks, boat wrecks, old cabins and research stations, and the pictures that decorate them. There are many bloggers who explain the stories behind the remnants that they see of failed attempts at industry, such as the destitute infrastructure for sheep farming and oil production from the 19th and 20th centuries (see Figure 3), and for salmon farming from the 1980s. Past activities visible in the landscape are reminders of not only scientific and economic efforts of other times, connecting the archipelago to the mainland, but also of the continued geopolitical significance of these islands. On her blog *Sur la base subantarctique de Port-aux-Français*, writer and traveler Christiane Geoffroy tells of her encounter, just outside of basecamp, with the stations and towers currently used to monitor wave lengths and communications of all sorts, from magnetic fields to illegal nuclear testing. However, her observations inform the reader that this strategic assemblage has older roots. On her excursion, she observes a defunct Soviet rocket launch platform:

A disused launch pad is also visible on this site, from the time this miniature Silicon Valley had Russian flavors. It was used in the 1970s for the launch of Soviet rockets,

creating aurora borealis, which operated symmetrically in both hemispheres at Kerguelen and Sogra in Russia. This Franco-Russian collaboration collapsed with the Soviet Union.

(<http://www.christianegeoffroy.com/blogs/blog/archipel-de-keruelen/page/4/>)



Figure 3: These remnants in Port-Couvreux of vats and boilers used for making elephant seal oil in the 20th century attest to the short-lived history of industry on the Kerguelen Islands. © B.navez, https://de.wikipedia.org/wiki/Kerguelen#/media/File:ElephantSealOilVats_Kerguelen.jpg

These observations of remnants of past mundane activities simultaneously attest to the Kerguelen Islands' long-lasting global interconnectedness, and the very real ways in which these relations have affected its physical landscape. This cultural entanglement occurs, as Hince (2008) advances, even without the presence of a permanent population. Each attempt at exploiting and inhabiting the islands has left physical traces. With years of human involvement centred on relaying information, building transnational networks and physical structures, and noting down observations for future research, the novelty of the Kerguelen Islands as desolated and remote is juxtaposed with the archipelago's temporal social and physical formation as a scientific and strategic outpost since 1949. Through this interactivity, the Kerguelen Islands become, as Cloke and Jones (2001) would argue, a hybrid assemblage of local and extra-local practices.

This juxtaposition of the remote with the global is decipherable in the bloggers' descriptions of the landscapes they encounter where they express their interest for its peculiar beauty. Particularly revealing is this quote from the electronic engineer Thibault Béziers la Fosse from *Tranche de vie aux Kerguelen*, where he links his view of the massive scientific equipment he works with daily to the immensity and deserted character of the archipelago's landscape: "It is precisely at this point that one can see all the radomes containing large antennas aimed at tracking the satellites. The landscape is quite particular, immense and lunar" (<http://thibaultblf.blogspot.se/2013/>).

The materials of scientific discovery, often of geopolitical character, like antennas and radomes, and the physical remains of past endeavours, become a part of the Kerguelen Islands' landscape. The landscape does not necessarily lose its fantastic appeal as desolated, but rather becomes something quite particular, to put it in the words of the engineer. The Kerguelen

Islands are connected to spaces beyond their territorial limits through French scientific and strategic endeavours and failed attempts at industry, and as Massey (2005, 1991) argues in terms of relational geography, it is these interrelations that give this space its own particular and hybrid identity. As Baldacchino (2005) contends, the island is a world apart, but this uniqueness does not occur in isolation to the rest of the world as the island engages with the latter.

Conclusion

Through the diary writings of those who have sojourned on the archipelago, it becomes evident that humans have left and still leave traces of themselves in the Kerguelen Islands, even if their inhabitation has always been temporary. Cold-water islands of the (sub) polar seas exude imagines of desolation, wild landscapes, and dreams of exploration to the end of the world. By studying the relational character of travel preparations, scientific expeditions, the fulfilment of daily tasks, and rhythmic encounters with non-humans, the Kerguelen Islands become a hybrid realm in constant interplay with the people and spaces of this world. An analysis of the Kerguelen Islands through mundane practices and spatial interconnections infuses the archipelago with a different sense than the one it acquired from its description through island tropes of isolation and contemplation in travel literature and fiction. This analysis also gives more substance to a landscape that is traditionally written about from the perspective of an observer interested in historical and scientific writings. Focusing on the accounts of those who dwell therein helps to see a place of connection, continuity, and organization, formed through the daily engagement of humans with a tangible landscape, who give it its own unique cultural character and meaning (Ingold, 2011; Olwig, 1996; Vannini & Taggart, 2012). As Baldacchino (2005) would argue, the Kerguelen Islands are a physical realm that engages and is engaged with human activity.

Island scholarship can broaden its conception of island geographies by looking into the way the cold-water islands at the end of the world are formed through socio-cultural practices and global interrelations. Riquet (2016) proposes that the study of islands erased by snow and ice provides insight into a distinct set of philosophical questions over islandness. As literary tales of economic survival in resource-abundant contexts and contact with exotic people are replaced by constructions of wonderment and contemplation, we are left with a distinct perspective from which to understand this particular context of human involvement. This article has outlined three themes to contrast this type of conceptualization of cold-water islands. Firstly, the context of the subantarctic islands is one that requires elaborate preparations, attesting to the importance of objects in the experience of islands. This conceptualization brings to light more general questions about material culture in island studies. Besides woolen socks and rain jackets, what other objects mediate the way islands are known to those who visit them? Economic survival and mundane order are visible in the objects and practices that mediate human encounters with the vast landscape of the subantarctic region and its non-human entities.

Secondly, the analysis of the interrelation between humans and non-humans on islands designated as (sub) polar sanctuaries for ecological research can be taken further to re-conceptualize the contact zone between worldly populations and gain further insight into the impact of their encounters on spatial formation. Importantly, science and industry on islands without a native population, like is so often the case in the subantarctic region, can be approached as imposing imperialist discourses upon a landscape. More generally, the impacts of humans on the fauna and flora of islands raises important questions over island ecosystem resilience. More questions revolving around human and non-human interplay could address this matter in island studies. The presence of invasive species on the Kerguelen Islands was addressed briefly in this article, more as background information, but further research could look into these species' interplay with the landscape. What roles do the introduced reindeers

and the feral cats play in the ongoing formation of the Kerguelen Islands' landscape? What are the ecological consequences?

Lastly, the Kerguelen Islands have been formed through many industrial, geopolitical, and scientific projects that have connected them, and still connect them, to the rest of the world. The many identities of the archipelago are all visible in the landscape, creating a very particular space that is highly global because of strategic interests, and yet desolated to the point where survival guides need to be written. The blogs of its sojourners are an interesting window into the way the material and the practical converge to make the Kerguelen a distinct cultural realm. However, my analysis did not enable me to probe adequately at the dreams, imagination, and fascination that make up the human experience of finding oneself in the Kerguelen Islands. Further research could use more in-depth qualitative methods, such as interviews and participant-observations, to juxtapose the physical agency of these islands with the human imagination. This could help to develop further a relational island geography interested in studying islands on their own terms.

References

- Amin, A. (2002). Spatialities of globalisation. *Environment and planning A: Economy and Space*, 34(3), 385-399. <https://doi.org/10.1068/a3439>
- Amin, A. (1997). Placing globalization. *Theory, Culture & Society*, 14(2), 123-137. <https://doi.org/10.1177/026327697014002011>
- Anderson, J. (2012). Relational places: the surfed wave as assemblage and convergence. *Environment and Planning D: Society and Space*, 30(4), 570-587. <https://doi.org/10.1068/d17910>
- Arnaud, P., & Beurnois, J.M. (1996). Les armateurs du rêve : Les concessions Bossière et les sociétés françaises d'exploitation des îles australes de l'océan Indien (1883-1939). Marseille: Mme F. Jambois.
- Bajard, P. (1964). Données sur la biologies et l'exploitation industrielle des éléphants de mer aux Kerguelen. *CNFR A Biologie*, 1(5), 109-131.
- Baldacchino, G. (2012). The lure of the island: A spatial analysis of power relations. *Journal of Marine and Island Cultures*, 1(2), 55-62. <https://doi.org/10.1016/j.imic.2012.11.003>
- Baldacchino, G. (2006a). Editorial introduction. In G. Baldacchino (Ed.) *Extreme tourism: Lessons from the world's cold-water islands* (pp. 3-12). Oxford: Elsevier. <https://doi.org/10.1016/B978-0-08-044656-1.50004-4>
- Baldacchino, G. (2006b). Islands, island studies, island studies journal. *Island Studies Journal*, 1(1), 3-18.
- Baldacchino, G. (2005). Islands—objects of representation. *Geografiska Annaler: Series B, Human Geography*, 87(4), 247-251. <https://doi.org/10.1111/j.0435-3684.2005.00196.x>
- Baldacchino, G., & Clark, E. (2013). Islanding cultural geographies. *Cultural Geographies*, 20(2), 129-134. <https://doi.org/10.1177/1474474012469594>
- Buttimer, A. (1993). *Geography and the human spirit*. Baltimore: Johns Hopkins University Press.
- Buttimer, A., & Seamon, D. (1980). *The human experience of space and place*. New York: St. Martin's Press.
- Cloke, P., & Jones, O. (2001). Dwelling, place, and landscape: an orchard in Somerset. *Environment and Planning A*, 33(4), 649-666. <https://doi.org/10.1068/a3383>
- Cresswell, T. (2013). *Geographic thought: a critical introduction*. Oxford: Wiley-Blackwell.
- Creswell, J.W. (2013). *Qualitative inquiry and research design: choosing among five approaches*. London: Sage.
- Crouch, D. (2003). Spacing, performing and becoming: Tangles in the mundane. *Environment and Planning A*, 35(1), 945-1960. <https://doi.org/10.1068/a3585>

- Czarniawska, B. (2004). *Narratives in social science research*. Thousand Oaks, CA: Sage.
<https://doi.org/10.4135/9781849209502>
- Delépine, G. (2002). *Histoires extraordinaires et inconnues dans les mers australes*. Rennes: Édition Ouest-France.
- Delépine, G. (1995). *Les îles australes françaises—Kerguelen, Crozet, Amsterdam, Saint-Paul*. Rennes: Édition Ouest-France.
- Delépine, G. (1976). *Les Voyages aux îles Kerguelen depuis la découverte jusqu'à la constitution du territoire d'après les sources écrites (1772-1949)*. Paris: Documentation française.
- DeLoughrey, E.M. (2007). *Routes and roots: navigating Caribbean and Pacific island literatures*. Honolulu: University of Hawai'i Press.
- Dening, G. (2004). *Beach crossings: voyaging across times, cultures and self*. Melbourne: Miegunyah.
- Druett, J. (2007). *Island of the lost*. Auckland: Harper Collins.
- Druett, J. (1983). *Exotic intruders*. Auckland: Heinemann.
- Dutton, J. (2009). Imperial ice? The influence of Empire on contemporary French and British Antarctic travel writing. *Studies in Travel Writing*, 13(4), 369-380.
<https://doi.org/10.1080/13645140903301859>
- Escobar, A. (2001). Culture sits in places: reflections on globalism and subaltern strategies of localization. *Political Geography*, 20, 139-174. [https://doi.org/10.1016/S0962-6298\(00\)00064-0](https://doi.org/10.1016/S0962-6298(00)00064-0)
- Fleury, C., & Raoulx, B. (2016). Toponymy, taxonomy and place. *Shima*, 10(1), 8-20.
<https://doi.org/10.21463/shima.10.1.04>
- Foucault, M. (1970). *The order of things*. London: Tavistock.
- Freeman, M. (2004). Data are everywhere. In C. Daiute & C. Lightfoot (Eds.) *Narrative analysis: studying the development of individuals in society* (pp. 63-79). London: Sage.
- Gillis, J.R. (2004). *Islands of the mind: how the Western imaginary shaped the Atlantic world*. New York: Palgrave Macmillan.
- Haldrup, M., & Larsen, J. (2006). Material cultures of tourism. *Leisure Studies*, 25(3), 275-289.
<https://doi.org/10.1080/02614360600661179>
- Hay, P.R. (2006). A phenomenology of islands. *Island Studies Journal*, 1(1), 19-42.
- Hince, B. (2008). Subantarctica: the Auckland Islands and Joan Druett's Island of the Lost. *Shima*, 2(1), 103-114.
- Ingold, T. (2011). *The perception of the environment: essays on livelihood, dwelling and skill*. London: Routledge.
- Kaae, B. (2006). Greenland/Kalaallit Nunaat. In G. Baldacchino (Ed.) *Extreme tourism: lessons from the world's cold-water islands* (pp. 101-114). Oxford: Elsevier.
<https://doi.org/10.1016/B978-0-08-044656-1.50012-3>
- Kauffman, J. P. (1993). *L'Arche des Kerguelen: Voyages aux Îles de la Désolation*. Paris: Flammarion.
- Kneale, J. (2017). Islands: literary geographies of possession, separation and transformation. In R. Tally (Ed.) *The Routledge Handbook of literature and space* (pp. 278-290). New York: Taylor & Francis.
- Latour, B. (2005). *Reassembling the Social: an introduction to Actor-Network Theory*. New York: Oxford University Press.
- Latour, B. (1993). *We have never been Modern*. Cambridge, USA: Harvard University Press.
- Lorimer, H. (2005). Cultural geography: the busyness of being 'more-than-representational'. *Progress in Human Geography*, 29(1), 83-94. <https://doi.org/10.1191/0309132505ph531pr>
- Massey, D. (2005). *For space*. London: Sage.
- Massey, D. (1991). A global sense of place. *Marxism Today*, 39, 24-29.
- McCall, G. (1996). Clearing confusion in a disembedded world: the case for nissology. *Geographische Zeitschrift*, 84(2), 74-85.
- McCall, G. (1994). Nissology: the study of islands. *Journal of the Pacific Society*, 17(2-3), 1-14.

- Michael, M. (2000). These boots are made for walking...: mundane technology, the body and human-environment relations. *Body and Society*, 6(3-4), 107-126. <https://doi.org/10.1177/1357034X00006003006>
- Murdoch, J. (2006). *Post-structuralist geography*. London: Sage.
- O'Brian, P. (1978). *Desolation Island*. London: Harper Collins.
- Olwig, K.R. (1996). Recovering the substantive nature of landscape. *Annals of the Association of American Geographers*, 86(4), 630-653. <https://doi.org/10.1111/j.1467-8306.1996.tb01770.x>
- Poe, E. A. (1838). *The narrative of Arthur Gordon Pym of Nantucket*. New York: Harper & Brothers.
- Power, E.R. (2009). Border-processes and homemaking: encounters with possums in suburban Australian homes. *Cultural Geographies*, 16(1), 29-54. <https://doi.org/10.1177/1474474008097979>
- Pratt, M.L. (2008). *Imperial eyes: travel writing and transculturation*. London: Routledge.
- Pugh, J. (2016). The relational turn in island geographies: bringing together island, sea and ship relations and the case of the Landship. *Social & Cultural Geography*, 17(8), 1040-1059. <https://doi.org/10.1080/14649365.2016.1147064>
- Riquet, J. (2017). Island spatialities. In R. Tally (Ed.) *The Routledge handbook of literature and space* (pp. 291-311). New York: Taylor & Francis.
- Riquet, J. (2016). Islands erased by snow and ice: approaching the spatial philosophy of cold water island imaginaries. *Island Studies Journal*, 11(1), 145-161.
- Simonsen, K. (2012). In quest of a new humanism: embodiment, experience and phenomenology as critical geography. *Progress in Human Geography*, 37(1), 10-26. <https://doi.org/10.1177/0309132512467573>
- Steinberg, P., & Peters, K. (2015). Wet ontologies, fluid spaces: giving depth to volume through oceanic thinking. *Environment and Planning D: Society and Space*, 33(2), 247-264. <https://doi.org/10.1068/d14148p>
- Thrift, N. (2008). *Non-representational theory: space, politics, affect*. London: Routledge.
- Tuan, Y.F. (1977). *Space and place: the perspective of experience*. Minneapolis: University of Minneapolis Press.
- Tuan, Y.F. (1974). Space and place: humanistic perspective. *Progress in Human Geography*, 6, 233-246.
- Vannini, P., & Taggart, J. (2013). Doing islandness: a non-representational approach to an island's sense of place. *Cultural Geographies*, 20(2), 225-242. <https://doi.org/10.1177/1474474011428098>
- Verne, J. (1897). *Le sphinx des glaces*. Paris: Hetzel.
- Walsh, N., & Tucker, H. (2009). Tourism 'things': The travelling performance of the backpack. *Tourist Studies*, 9(3), 223-239. <https://doi.org/10.1177/1468797610382706>
- Whatmore, S. (2006). Materialist returns: practising cultural geography in and for a more-than-human world. *Cultural Geographies*, 13(4), 600-609.
- Whatmore, S. (2002). *Hybrid geographies: natures, cultures, spaces*. London: Sage. <https://doi.org/10.1191/1474474006cgj377oa>
- Wylie, J. (2013). Landscape and phenomenology. In P. Howard, I. Thompson, & E. Waterton (Eds.) *The Routledge companion to landscape studies* (pp. 54-65). London: Routledge.
- Wylie, J. (2003). Landscape, performance and dwelling: a Glastonbury case study. In P. Cloke (Ed.) *Country visions* (pp. 136-157). Harlow: Pearson Education.