
Manipulating material hydro-worlds: rethinking human and more-than-human relationality through offshore radio piracy

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Abstract: Lambert et al state that emerging geographical studies of social and cultural worlds at sea should take into account the currents, textures, and more-than-human elements of the oceans. In spite of this call there has been little work which seriously considers the physical, more-than-human geography of the sea—its very materiality—and how it comes into play with social and cultural life. This paper draws on the watery excursions of Radio Caroline’s pop-pirate broadcasting ships, examining the ways in which the materiality of the sea as a ‘hydro’ state (that is, motionful, deep, and dynamic), has agency; resulting in a variety of visceral affects for those at sea, and also for those listening to the station’s transmissions back on dry land. The paper begins by examining the strategic locations of the pop-pirate vessels whilst at sea to manipulate the motionful impact of the ocean and how, in turn, the depth and dynamism of the sea were harnessed to create unique audio experiences for those listening. The paper then continues to explore the ways in which, even with such manipulations and harnessing, crew members sometimes had little control of their situation; resulting in disorientation and confusion as the power of the sea immersed them. Through these two sections it is contended that the specific quality of the sea opens up new relational understandings between the human and more-than-human worlds. Humans cannot assert influence back onto the materiality of the sea as they might the earth, and therefore must negotiate the force of the ocean through forms of strategy and management; manipulations of materiality and affect, forming new cocomposed relations. It is concluded that further studies, both in more-than-human geographies and within the discipline more widely, of the sea’s inordinate agency and wider web of extraterrestrial relations are required in order to take seriously the often forgotten 70% of the Earth’s surface which is ocean.

Keywords: affect, cocomposition, manipulation, materiality, relationality, sea

Introduction

In a broadcast transmitted on 19 March 1980 from the ship *Mi Amigo*, home to the offshore station ‘Radio Caroline’, disc jockey (DJ) Tom Anderson stated to listeners tuning into 319 m:

“We apologise for not being able to bring you our normal programmes and trust you are enjoying the continuous music we’ll be bringing you [continuous tracks play, one after the other] ... It’s not a very good occasion really, we have to hurry this because the lifeboat is waiting. We’re not leaving and disappearing ... I’m sure we’ll be back ... For the moment from all of us, goodbye and God bless” (*Past Masters No. 6* 2007).

Shortly after this broadcast, the ship *Mi Amigo* sank. It had broken from its permanent anchorage and had drifted. The weather was severe and the waves rode high. The ship was pounding against sandbanks and began to spring leaks. The crew of DJs terminated their usual routine of radio programmes. They instead played continuous music whilst they rushed about the vessel, panicked. Listeners of the station sat at home, riveted by events, wondering

what might happen next. Behind the microphone, chaos was rising. Using portable pumps, the crew frantically tried to siphon out the water which was flooding the ship. In the end, as conditions worsened, the crew had to admit defeat and leave the vessel on a lifeboat; but not before bidding farewell to the legions of listeners following the on-air drama.

The material qualities of the hydroworld—its instability and sheer, motionful, dynamic power were folded into social life on board the *Mi Amigo* on that day in 1980, and into the lives of the offshore station's listeners back on dry land. In this paper I explore the relations between the more-than-human sea and human life (those who worked on board ships and those who listened back on land). Of course the ships could be considered as more-than-human too, however here my attention is not on humanly constructed more-than-human 'things' (for this see Crang, 2010), but rather on the 'hydro' or water world: the more-than-human sea, its extraterritoriality, its motion, depth and dynamism and the ways in which these qualities, specific to the sea, were bound up with "the intimate fabric of corporeality" (Whatmore, 2006, page 602). Sarah Whatmore has argued for the importance of studying the very materiality of our world (the 'geo' or 'earth') as 'co-fabricated' with 'bodies' or human 'bio (life)' in the 're-turn' towards 'more-than-human' geographies (2006).⁽¹⁾ Ingold (2008) and McCormack (2008) have stretched this call in new directions, taking into account not only the 'earthly nonhumaness' of the world, but the air, weather systems, and gaseous nature of the atmosphere. Ingold in particular has attended, like Whatmore, to the ways in which the human and nonhuman (bodies and air) are not separate but are bound together, where "it is in the nature of living beings ... by way of their own processes of respiration ... they *bind* the medium with substances in forging their own growth and movement through the world" (2008, page 1803, emphasis added). In this paper I challenge and expand this existing work in two important ways.

Firstly, through examining the distinct 'hydro' materiality of the sea (as an extraterritorial, watery space; a motionful space; and a deep and dynamic space), I contend that the natures of cofabrication which underscore studies of the more-than-human world are challenged, with new compositions arising when the force of the sea is brought into focus. Whilst more-than-human geographies alert us to the agency of those nonhuman and more-than-human entities of our world, that agency is understood often as reciprocal—nature being able to assert power over the human, just as the human can assert power over nature—hence a relationship of cofabrication (Hinchliffe and Whatmore, 2006; Whatmore, 2006), or binding (Ingold, 2008, page 1803) takes place.⁽²⁾ When we consider the often marginalised hydro materiality and more-than-human force of the sea, I contend that the relationality normally subsumed between human and nonhuman worlds is altered. Humans are unable, largely, to express power back onto the sea (as they might with other forms of nature); such is the agency and material quality of the sea as a hydrospace (that is, extraterritorial, motionful, deep, dynamic). Instead, humans can only grapple with the power of the sea, harnessing its power and manipulating its affects, to use them to best effect.⁽³⁾ Of course these actions are a form of power also, but here

⁽¹⁾ Although I appreciate that 'bio (life)' can also refer to "more than human bodies" (ie, animals, plant life) in composition with the "lively earth" (Whatmore, 2006, page 603), here I take Whatmore's 'bio (life)' to refer to human, biological life, following her assertions that we must "interrogate" the ways in which "'the human' (is) no less a subject of ongoing co-fabrication than any other socio-material assemblage". Thus, following Whatmore, my emphasis here is on the "connection between bodies (including human bodies) and (geophysical) worlds"—in this case, the sea (Whatmore, 2006, page 603).

⁽²⁾ That is not to say that these relations of cofabrication and cocomposition are always equal; that nature has the same power on humans that humans may have on nature. Rather, relations of cocomposition are nuanced and complex (see Hinchliffe and Whatmore, 2006).

⁽³⁾ Moreover, cocomposition between 'matters', human and nonhuman, does not always imply manipulation and control between the two. In this paper I contend however that these forms of power are an outcome of a specific type of coming together: human life and the sea, in order for the sea to be managed by the former.

I argue that unlike human interactions with terrestrial forms of nature, society is less able to shape and mould the sea to its own desires. Thus different relationalities and cocompositions arise when considering the hydro, as opposed to the earthly.

Secondly, I expand current research of the more-than-human world by looking not around us at the air, or upwards, to the sky, but outwards towards the sea. Whilst there has been a host of work taking seriously more-than-human geographies of soils, earth, and air (Hitchings, 2003; Ingold, 2008; Philo and Wilbert, 2000; Whatmore, 2002), arguably that work has excluded a consideration of one of the most vast, more-than-human elementary forces of all—the sea. This omission acts to reinforce the land bias which generally characterises human geography as a discipline (Steinberg, 2001). In order to take the sea seriously in this respect, I am interested in the distinct materiality of the sea and its hydro qualities and how these register various affects, but also challenge traditional relations of cocomposition and coconstitution enshrined within thinking on the more-than-human world. I thus argue that we can expand Whatmore's assertion that '*geo* (earth)' and '*bio* (life)' must come together in geographical study (2006, pages 601–603) by contending that so too should the '*hydro* (sea)' and '*bio* (life)'. By exploring the relations between the sea and social life (as well as between earthly nature and human life) new knowledge is unlocked about the more-than-human world; relations of cocomposition, and matters of non-human agency. Whilst making this argument, however, I do not contend for a complete revisioning of relational understanding which underscores contemporary geographic thinking. Indeed, when referring to the sea, it is impossible to consider it as an independent entity which is itself not subject to relational composition (the coming together of the moon's gravitational pull, winds, jet streams, shifting seabeds below the surface). Rather, I propose that this multifaceted living medium (the sea) presents new complex relationalities when brought together with human life; relationalities which are more forcefully subject to the sea because of its specificity as a complex, three-dimensional, deep, dynamic space.

I begin the paper by expanding on this introduction, offering an overview of research concerned with more-than-human geographies, cofabrication, and composition, contending that a focus on the hydro materiality of our world is a useful way to unpack social life on Radio Caroline's pop-pirate ships and in turn to rethink matters of agency and relationality in current discourse. Hereafter I provide a brief contextual history of the offshore broadcaster, before considering how the more-than-human, hydro, materiality of the sea was an affective force for those on board Radio Caroline's ships and for those listening on shore. I begin by focusing on the motion of the sea, and also turning to its three-dimensional depth; exploring the power of this hydro materiality in shaping social life and how those on board the radio ships selected careful locations to manipulate the force of the sea. I explore further how the force of the sea was harnessed to best effect, in creating unique audio experiences for listeners back on dry land. I then examine how the force of the ocean was sometimes beyond the strategies and management described; thus breaking down the usual understandings of relationality and reciprocity associated with more-than-human geographies—creating senses of disorientation. Throughout the paper I investigate what is special about the material agency of sea and what this means for human and more-than-human relations. I close the paper by drawing conclusions and posing questions for the future study of the more-than-human in contemporary geography; particularly in terms of relationality and the need to take into account a wider web of relations to understand fully the seas around us.

More-than-human geographies

In a manifesto for sea-based geographies, Norbert et al contend that “to understand coastal-marine spaces one must integrate both the human *and* the physical” (2004, page 2, emphasis added). As Lambert et al similarly contend, “clearly climatic, geophysical and ecological processes belong in work on the sea” (2006, page 482). Such calls mark an acknowledgement

that geographies of the watery world must address the physical geography or hydrology of such spaces, yet there has been little work which takes into account how these more-than-human factors are in composition with human life, both within ‘oceanic’ human geographies and within more-than-geographies more broadly. Whilst I do not want to propose that the sea is thought of as a sealed and independent entity to be examined (it is itself composed of relations), I do want to bring this watery assemblage into focus particularly as there has yet to be an examination of the ways in which more-than-human and human interrelations challenge the existing doxa underpinning these studies, when this space is made a central (rather than a peripheral) concern.

The omission of the sea (broadly configured) is strange, given geographers are increasingly questioning “how humans and non-humans relate”, marking an “ontological manoeuvre” which seeks to understand “the ways in which humans, animals, plants and other actors and intermediaries come together” (Bear and Eden, 2008, page 488); in other words, how they are “co-fabricated” (Whatmore, 2006, page 603) or “in composition” (Bennett, 2004, page 365). This way of thinking challenges “spatial totality”—the understanding that the world exists in neatly defined parcels—but rather speaks to ways in which things are instead configured of relations which “dissolve the boundaries” between objects and spaces (Jones, 2009, page 491) as they come together in “entanglements” (Ingold, 2008, page 1796). When bringing the sea into focus (a space itself consisting of relations between various nonhuman elements), I contend that relations between this coconstituted space and human life brings more nuanced relationalities into focus, because (more often than not) those grappling with the sea cannot refract power back onto this forceful space, but rather become bound in a relationship of harnessing the sea’s power and manipulating its energy as they try to battle the wildness of the ocean.

I thus argue Whatmore’s contention for the ‘*geo* (earth)’ and ‘*bio* (life)’ to come together could be extended in new directions by looking outwards to watery horizons, considering the ‘*hydro* (sea)’ and ‘*bio* (life)’—how human and more-than-human relations function; and how, through considering the qualities of hydro materiality, those understandings of cocomposition and cofabrication can be rethought. In doing so I contribute to discussions which are moving more-than-human geographies seawards (following in the footsteps of Bear and Eden, 2008), whilst also adding to emerging ‘geographies of the sea’ by revising the “static and empty conception of the sea” through a process of highlighting its own agency as affective, “lively and energetic” and forceful (Lambert et al, 2006, page 482).

Anderson describes how the human and more-than-human relationalities which I have described come together in processes of affect, where “expansion of the affectual and emotional begins from an alternative attunement to affect as a transpersonal *capacity* which a body has to be affected” (2006, page 735, emphasis in the original). In other words, affect is the ability of a person to be “struck and shaken”, “transfixed in wonder and transported by sense” due to the inherent agency or power of the ‘thing’ itself (Bennett, 2001, pages 4–5). Geography is now “return[ing] to the livingness of the world”, focusing on how more-than-human, natural or physical worlds are not only ‘enjoined’ or cocomposed with, but also ‘affected’ by the ‘mediums’ of the world (earth, air, water) (Whatmore, 2006, page 602). Part of this move has been marked by a reconceptualisation of materiality and matter (see Anderson and Wylie, 2009); so that natural elements (earth, air, water) are no longer seen as ‘empty’ but as material ‘things’ with a material agency which is affective. This affectual capacity has been configured by Bennett (2004) as ‘force’ and this is a particularly useful interpretation in view of the sea. Force speaks to, on the one hand, a scientific or natural strength, but the term also encapsulates ‘continuum’ (Bennett, 2004, page 355); a seamless, unabating quality which comes to bear on human life. Clearly the sea’s affects are forceful—emerging from the elemental power of the sea and its continuous flux.

Accordingly, in this paper I configure the sea materially, asking how the qualities of the sea (as extraterritorial, motionful, deep, and dynamic) were affective: how they had a power of their own (not a power assigned by human life), which in turn enlivened the capacity for the bodies of the radio ships' crew (and those listening on land) to be forcefully affected. I also consider how these qualities had other affectual impacts: political affects which were harnessed and manipulated by those operating Radio Caroline. I next introduce this case study around which my explorations focus, before considering the new relationalities which emerge between human and more-than-human life when attention is paid to the coconfigured force of the sea.

Radio Caroline: the sea-based broadcaster

At the beginning of 2010, the broadcasting station 'Radio Caroline' was transmitting popular music programmes via satellite and Internet from a studio in Strood, Kent. The station is better known however as the offshore 'pirate' broadcaster that was located aboard various vessels anchored in the North Sea (and also for three years in the Irish Sea) between 1964 and 1991. These vessels were, in chronological order, the *MV Frederica*, the *Mi Amigo*, and the *Ross Revenge*. Radio Caroline was a response to the broadcasting monopoly held by the British Broadcasting Corporation (BBC hereafter) within UK territory from 1929 onwards. Under government direction and a Royal Charter the BBC was designated the sole authority for broadcasting in Britain, yet as Andrew Crisell states, "the BBC's output was not always enjoyed: indeed the Corporation was often accused of being undemocratic and elitist" (1997, page 27). By the 1960s, a time in which a plethora of new music was emerging and social changes were occurring (see Donnelly, 2005; Marwick, 1998; Rycroft, 2002), there was demand for more radio choice and choice which reflected the listening desires of the population. The BBC played little of this new music, arguing it was "vulgar", "tripe", and "filth" (Lewis and Booth, 1989, page 77). Yet there could be no other radio stations aside from the BBC; the statutory and regulatory canvas of Britain at the time prevented the emergence of broadcasting competition.

It was in this climate that an Irish entrepreneur called Ronan O'Rahilly identified a loophole in the British broadcasting monopoly. He recognised that by locating a radio station outside of UK territory, the laws restricting broadcasting within Britain would not apply, but by using powerful medium-wave (MW) frequencies millions of potential listeners could still be reached. O'Rahilly's method of achieving this was to anchor a ship in the high seas, beyond the legal boundary of Britain. Here, in international waters, Radio Caroline broadcast for twenty-six years. Yet this broadcasting was not without opposition. Radio Caroline (and a plethora of other 'pirate' stations which took to the seas) was broadcasting on unauthorised frequencies not allocated by the International Telecommunications Union (ITU). Furthermore, by being outside of British territory, pirate stations could evade copyright laws and performing rights agreements: very simply they were outside of control, and as Lord Aberdare stated in the House of Lords in 1964, they were in fact, "free to ignore any Act of Parliament".⁽⁴⁾ In 1967 a law was introduced to sink the water-based radio pirates but this was largely unsuccessful because radio piracy was a protected freedom of the seas under the Geneva High Seas Convention of 1959 (see Peters, 2011). It was only with a change to international law, and then national law in 1990, which finally gave Britain's Tory government the authority to close down sea-based broadcasters.

Much of the work concerned with pirate radio has (perhaps unsurprisingly) focused on the media-communications significance of the enterprise (see Humphries, 2003; Rudin, 2007; Skues, 2009), rather than recognising that it was not only a broadcasting phenomenon but also a maritime one. Indeed, the ships (anchored at 51°, 35'00"N, 01° 17'20"E in the

⁽⁴⁾ House of Lords Debate, 18 June 1964, vol. 258, cc 1363–82.

North Sea between 1964 and 1987) were the base of the station and a base without which broadcasting would not have been possible. The location of station at sea (beyond Britain's boundary) facilitated the entire enterprise, and also as Chapman (1992, pages 248–249) notes, shaped the broadcasting output, as listeners would tune into songs, storms, and sinkings on the 319 m frequency.⁽⁵⁾ Whilst thinking about the ships as nonhuman 'things' is one method through which to unpack debates about more-than-humanness within a maritime setting (see Crang, 2010), here my primary interest is how the materiality of the sea was integral to Radio Caroline's history. Given the long period it was located at sea and the political life of the enterprise, Radio Caroline provides a salient example around which to base a discussion about the sea's materiality, affective nature, and relationality to the human world. I now explore the affective materiality of the sea in relation to the social world on board Radio Caroline's ships in greater detail.

Motion, depth, and affect: locating radio pirates and manipulating the sea's affects

"I stayed on land just long enough to make sure that Caroline was where I wanted to be Surbiton was lovely, but it no longer felt like home; my heart was out at sea. I tuned into Caroline whenever I was at the flat, and it seemed strange to hear the music and voices coming out of the radio and to realise that they were from that community I had been a part of . . . other things seemed odd too. The ground was always solid under my feet, you could turn on a tap for as long as you liked, and you could stack things in a cupboard without worrying if they would fall over the next time the wind got up. I wanted to rejoin the ship.

Conway (2009, page 42)

Writing in his autobiography, Steve Conway alerts us to some of the more-than-human 'hydro' factors which were seemingly enjoined with 'bio (life)', on board Radio Caroline's final radio ship *Ross Revenge*. Indeed, Conway describes living at sea as 'ungrounded', or lacking solidity—he could feel the motion of the ocean currents under his feet whilst he lived on board the Radio Caroline ship *MV Ross Revenge*. Similarly, Chris Thomas, an engineer on the first Radio Caroline ship *MV Frederica* and the second vessel *Mi Amigo* told me during an interview how

"if you have been any length of time at sea, it takes a day to acclimatise to the movement. It may only be subtle but you are forever counteracting the sway, so when I went back to land, it would take another day to reacclimatise" (interview, March 2009).

The DJs and engineers on board Caroline's ships had to cope with the difference that this "geophysical" binary between the land and sea created (Lambert et al, 2006, page 482). Indeed, they had to face living in a world which, although directly metal and solid (the ship), was immersed in the materiality of the motionful, three-dimensional, deep sea. This physical world on the open ocean was not simply connected to the ship; it was folded into, or permeated the ship, becoming an intrinsic part of that place, affecting life on board. Thus as Ingold has contended, there is no division between mediums, substances, and surfaces; rather the world and our experience of it is "continually generated and *dissolved* within the fluxes of materials across the interface between substances and the medium that surrounds them" (2007a, page 1, emphasis added). However, whilst the motion and three-dimensional materiality of the sea became folded into life on the ships; enjoined with visceral experience, there was nothing those on board could do to counteract the continual force of the sea (save for stacking items in the cupboard with care).

Let us think about the stacking of the items in the ship's galley in more detail. Those on board were unable to impart any power back onto the sea; to control it. Humans tending to a garden may be able to impose orders onto this space; to contain and limit nature or to encourage nature to bloom in one way or another. Those on board were unable to take hold

⁽⁵⁾ Radio Caroline also broadcast on other frequencies, notably 197 m and 201 m.

of the sea in such a way that they had some sort of mastery over it. Instead they sought only to manage or manipulate the energy of the sea through strategies which sought to lessen those affects of the motion and depth, as the ship swayed and moved high and low, pitching in the three-dimensional wateriness of the ocean. These were strategies such as moving their bodies in such a way as to encompass the constant movement; or by stacking items in the cupboard with care, so objects did not 'go flying' when the sea whipped up in a frenzy (Conway, interview, Mary, 2010). Here we see a form of affective manipulation which is not necessarily political (Thrift, 2004), but rather is telling of experience (Barnett, 2008, page 198).

Thinking of the sea 'materially' is inherently useful here too in unpacking the affectual force of the watery world. If we think of materiality as Anderson and Wylie (2009, page 319) would have us conceive of it (as consisting of any state—solid, liquid, or gas), we can be open to the possibility that the fluid, liquid, motionful sea as a 'matter' is related in some shape or form to the social experience of the crew on board the radio ships, as a force to be reckoned with. For Steve Conway and Chris Thomas, the motion of the material sea had its own natural agency, undulating up and down, affecting the crew as this sensation (for more on sensations see Edensor, 2007) was felt through their feet and bodies (to follow Ingold, 2004). The motion of the sea for example could result in very visceral affects on the ship in the form of seasickness. Bill Legend, a DJ, described for example how seasickness was often a terrible problem on the second radio vessel *Mi Amigo*:

"I remember somebody coming out, a guy called Keith, came out ... just before Christmas 78' ... but he came out, he went to bed—green—and he stayed in his cabin and I didn't see him again until he left his cabin about ten days later!" (interview, June 2008).

The physical rhythms of the material sea [or the "pulsating" medium of the sea as Lambert et al put it (2006, page 482)] could certainly affect life on board, with some DJs and crew suffering terribly with seasickness. On the one hand, we might interpret this as the way in which the sea was very literally entwined or immersed with corporeal experience; the motion of the sea was the same motion in the stomachs of seasick radio DJs—a churning over and over, like waves tip over and over. As Ingold writes, to inhabit the 'open' is "to be immersed in the fluxes of the medium, in the incessant movements" (of, in this case, the sea) (2008, page 1804). Yet, on the other hand, there is little the DJs could do to abate the motion of the sea.

Of course seasickness could not be solely contributed to the ships, but also to the individual's ability to deal with the motion of living and working at sea. However, not able to impart any control back onto the sea, to in turn control their seasickness, some individuals were unable to work upon the hydro materiality of the sea and had no choice but to leave life on board the radio ships. Ronald Clement for example, spent just six weeks on board the ship *Ross Revenge*, finding that he associated the place with feeling ill, and literally 'under the weather' when storms occurred and made the sway of the ship (which was anchored) much more severe (interview, March 2009). Keith, the DJ Bill Legend mentioned, never returned to the ship *Mi Amigo*. As such, a distinctly different cocomposition, a more nuanced and complex relationality, emerged where those on board were unable to impart control back onto the dynamic, deep, three-dimensional materiality of the sea whose constant undulation they were immersed in.

Such was the issue of the motion of the sea that the Radio Caroline organisation did all it could to try and counteract the capacity of the bodies of the crew to be affected; to manage the ocean as best they could through practices of manipulation [for more on manipulation see Barnett (2008)]. They attempted to target how exposed the ships (and thus the bodies of crew) were to what Langewiesche has called the "wild" and "untameable" nature of the sea (2004, page 1). As the Caroline ships were anchored in one location for long periods it was imperative that they were positioned somewhere where the continual physical force of the sea could be lessened and thus the visceral affects on the crew were likewise lessened.

When anchored 13 miles from the shore of Britain between 1974 and 1987, Radio Caroline used an anchorage in an area of sea known as ‘Knock Deep’. In the Knock Deep channel there is a large sandbank over which the Caroline ships *Mi Amigo* and *Ross Revenge* were anchored.⁽⁶⁾ This position meant, as DJ Johnnie Walker wrote, that “the seas were always calmer” (2007, page 88). In other words, by selecting a shallower area of sea to locate the vessels, those on board invariably had more comfortable experiences. As Johnnie Walker stated, it meant that those on the radio ships were not so subjected to the violent affectual force of the motionful ocean (their bodies in turn were less affected). The physical geography of the seabed was quite literally anchored [along a line, to follow Ingold (2007b; 2008)] to the social world on the ship, working to reduce the motion, seasickness, and the need to stack items with care in the cupboard or, as is recalled by Tony Blackburn, the need to put a weight on the arm of the record player in the radio studio to prevent the vinyls from skipping with the sea’s rhythms (2007, page 75).

However, in 1987 with introduction of the Territorial Sea Act, the UK government extended the boundaries of the nation, encompassing the Knock Deep anchorage so it was “inside UK waters” (Conway, 2009, page 46). The *Ross Revenge*, Caroline’s then home, was forced to move location to a new anchorage in Falls Head (26 miles from the coast of Kent). This position was far more exposed (Conway, 2009, page 62). Falls Head, as Conway wrote, “definitely had a different feel from the Knock Deep” (2009, page 62). There was

“no gentle rolling from side to side; the ship bucked and lurched under our feet, sending people and loose objects flying from one side of the room to the other. The sea outside whipped up into a white frenzy, and we realised just how much protection we had from those invisible sandbanks in our old anchorage” (Conway, 2009, page 79).

Indeed, the extent of this exposure would be truly realised only a few years later during a storm in November 1991 when the *Ross Revenge* broke its anchorage in extremely rough seas and drifted more than 18 miles to the Goodwin Sands where the ship almost foundered (see Conway’s account, 2009, pages 187-204). Following Lambert et al (2006) then, the physical, more-than-human force of the sea adds a further dimension to considering social and cultural geographies of maritime environments, and moreover more-than-human geographies; questioning existing ideas on the relations between the human and more-than-human world as the sea is manipulated to best effect in order to survive.

It is worth noting however that in the story of offshore radio piracy, the sea had an affective power beyond its ability to impact the sensing bodies of those on board. For Mack, the sea does not just exist “at sea” (2011, page 13). Rather it is ‘felt’, experienced, imagined, and affective beyond its watery borders. In the case of Radio Caroline, through the medium of broadcasts those listening on dry land were tied into the very physical affects of the sea through their audio experience. The sea provided a unique place from which to broadcast, and this place added to the broadcasts themselves, as listeners tuned in to hear about the exploits of the DJs out at sea. Many of the listeners I spoke to remembered how they became attached to the station because they were intrigued, excited, and fascinated by life at sea. Their recollections speak of the ways in which the sea literally flooded into their homes and workplaces via the radio. For Jim Mitchell, that the broadcasts emanated from the sea, created a unique audio experience; an unfolding of life; a mini drama where you did not know what might happen because of the sheer force of the sea. As such, the affectual capacity of the sea to create uncertainty for those living at sea was felt by those listening too. As Jim explained:

⁽⁶⁾ Between 1964 and 1968 the ships *Mi Amigo* and *MV Frederica* were located much closer to the shore (only 3 miles) and lay adjacent to the coastline so the swell was not so severe. In 1968 the station closed, reopening off the coast of Holland in 1972. In 1974, Radio Caroline returned to international waters outside of Britain but the ships were located further out to sea (13 miles) in line with the Marine, &c., Broadcasting Offences Act which was introduced in 1967. The ‘Knock Deep’ location was to counter the rougher conditions felt further from the shore.

“When we found out it was on a ship suddenly that added to the excitement and then, if there were difficulties [pause] there was always something going on and you know, the sea would be rough, records wouldn’t play properly, they would go off the air ... you never knew what would happen next!” (interview, March 2009).

Jim would scroll the dial of the radio trying to pick out what was happening; sometimes where he should have heard ‘Caroline’, he heard only white noise (interview, March 2009). Thus the affectiveness of the unabating motion of the sea was not only playing havoc with those at sea but its force had an impact on those many, many miles away. For those listening on land, the affects of the sea were less physical or visceral affects on sensing bodies but affects which transfixed and enchanted them. Indeed this world at sea was romancing listeners who became seduced by listening into this motionful, dynamic, and uncertain hydroworld. As listener Paul Robson described:

“I was fascinated by ... the fact it came from the sea ... these guys on the ship were going through overwhelming odds just to play me the latest Beatles song. So I loved a bit of the ‘ohh it’s rough out here today’ and this has happened, and that has happened” (interview, March 2009).

For Paul the audio experience of literally listening to the rough seas of the hydroworld through the broadcasts had him fascinated. Other listeners described how they were affected by the sea when listening to the radio pirates. Peter Sergeant for example, a long-standing fan of the station ‘Caroline’, told me how, upon realising it was at sea, he was

“just hooked. You only had to listen ... to know there was a life out there, they were out there, they were isolated on this ship at sea ... and it was unique ... and the emotion of it [pause]” (interview, May 2009).

Another listener, Alan Lang, described how he got “attached to the whole Caroline thing ... I can’t describe it, but it’s incredibly powerful I’d say” (interview, April 2009). Whilst listeners were ‘hooked’ to the station; it was not just the power of the sea at work, but also the manipulative practice of the on board crew of DJs. Tony Blackburn has noted that the power of the sea was often manipulated to keep listeners hooked. He wrote in this autobiography how, “when conditions got rough, we’d often play it up a bit, throwing ashtrays and things around to make it sound as if we were really braving it against the odds” (2007, page 75). Here the force of the sea was harnessed for political purpose—to attract listeners whose loyalty would provide a support base as the stations faced the pressure of successive governments to close them down. Indeed, listeners were enchanted by the maritime audio image of radio piracy they heard on air,

“all those storms, tempests, shipwrecks and how Caroline dodged the authorities, just to have the freedom to play records to whoever chose to tune in and listen to them” (Dean Masters, questionnaire response, June 2008).

Dean’s statement alerts us not only to the affective power of the motion of the sea for listeners who were enchanted by this uncertain, unpredictable watery world they could access via their radio sets, but also to another affective capacity of the sea; its political position as extraterritorial. Indeed, for many listeners, they were not only ‘hooked’ to the unfolding drama they heard on pirate stations (a drama resulting from the motion of the sea) but by the affective capacity of the sea as an outlaw space; a space where alternative and resistant practices were possible as it was beyond the rules and laws of the nation-state. Many listeners I spoke to told me of the importance of the position of radio pirates as resistant to and marginal from the ‘establishment’. As Gary Morris revealed, “it was very exciting (in 1976) when they said it’s illegal to listen to Caroline. I was nine and I was bitten (by it). It was the sense they were doing something wrong that kept you listening” (e-mail correspondence, March 2009). Listeners were seduced by the resistant nature of life on the ship: not just in terms of crews resisting the elements as best they could but also in resisting territorial norms through the fluid space of the sea. This alerts us to the manifold ways in which the materiality of the sea

may be affective. Its motion was affective on sensing bodies, but it also had an affectual power as an extraterritorial surface for activities illicit inside UK borders. Listeners became enchanted by the sea through both these affects, as they tuned into the sea-based broadcasts. Listeners however, like crew members were not able to impart power back onto the sea. When the sea's energy toppled the 300 ft mast on Radio Caroline's ship the *Ross Revenge* in November 1987 listeners were powerless as their connection to the hydro-world sunk beneath the sea. The same was also true when, due to its activities, the government's Radio Regulatory Department raided the broadcasting ship *Mi Amigo*. Here the sea's affective capacity as an outlaw space was beyond the control of listeners who could do nothing to prevent the silence that would ensue.

Beyond manipulation: surviving the qualities of the hydro-world

Although sometimes the crew 'played up' the power of the sea—manipulating its affects to harness listeners on land—they too were sometimes entirely unable to control its sheer force, when the usual or expected rhythmic motion of the sea changed, throwing life on board into disarray. This often happened with tidal changes and heavy storm waves. The Caroline ships, anchored on the seabed were especially susceptible to the continuum of turning tides. This tide turning was disorientating for those living on board. From the Knock Deep anchorage all that the DJs and engineers could see was the empty sea around them. As Paul Kristoff, a Dutch DJ told me:

It was different because it [the radio station] was at sea. There was nothing to see for miles around except sea. On a very, very clear day you might be able to see the shore at Ramsgate, but only when it was very, very clear, so it was very isolated out there with no communications with land" (interview, April 2009).

Moreover as the Knock Deep area was littered with sandbanks there were no shipping lines, and thus the presence of other ships passing by was rare. Steve Conway noted how you would just see "empty sea" (interview, May 2009). Roger Smith similarly told me how "it (was) really depressing ... you stand on the deck and look around 360°, you don't see anything except water and horizon" (interview, May 2008). All around then, the landscape (or seascape) looked the same to those on board. This emptiness had a very real affect on some members of the crew. Indeed, the emptiness of the sea was 'felt' very corporeally on board in terms of 'affectual', emotional senses of peace and solitude for some and isolation, loneliness, and sometimes despair for others. All around, the sea failed to vary. Thus when the Radio Caroline ships turned with the tide, these movements could disorientate those on board. Crew members would not know which way they faced—their bodies would feel lost—and would be further confused when the fixed markers of direction such as the sun and stars would appear on one side of the ship, and then the other. As Steve Conway described, "you might see the sun rise and set the same side of you" (interview, May 2009). This initial disorientation would soon fade as the DJs and engineers reassessed their position in relation to such fixed markers, but the changing movements of the liquid mass of the ocean certainly perplexed crew members when the ship turned in situ with the tide and had an affectual impact over the physical and cognitive capacity of the bodies of crew members.

More severe was the force of the storm waves, when the sea would whip up in a frenzy and the usual gentle motion on board the ships was replaced with relentless lurches, the vessels "swing(ing) like a pendulum" (Blackburn, 2007, page 75). Storms in themselves affected the social life on the ship in terms of bringing the crew together to fight the elements (as we saw at the start of the paper, when the DJs and engineers frantically pumped the water out which was flooding the ship *Mi Amigo*). One of the most extreme affects a stormy sea had upon the ships and their internal social worlds was when it caused the anchor chains to snap and the vessel to drift. This occurred many times in Radio Caroline's history. Each time was a disorientating affair. Firstly, because looking out of the porthole, the crew were often

unaware they had drifted (the view of the sea looked much the same) and, secondly, because of an enshrined “world view” (to use DJ Steve Conway’s words, interview, May 2009) that came with being anchored for long periods in same location. Those on board found it horribly disorientating to think they had moved from their anchorage (Steve Conway, interview, May 2009). This was made worse by the fact the Caroline ships had no equipment to map their location (Roger Smith, interview, May 2008).

For example, in 1974, the ship *Mi Amigo* drifted whilst immersed in a November storm, straying into British waters where it was illegal for the crew to broadcast. The crew had no control over their fate as the engines failed and the power of the sea (driven and composed by the winds of the weather world) literally took hold of the ship, moving it mercilessly with the ebb and flow of the sea; its tidal motion, gravitating from the moon. The crew were unaware of their location; they did not know if they were inside or outside of the invisible boundary marking British territory and international waters. Notes made by the Home Office claim on 13 November 1974 broadcasts were made from the *Mi Amigo* in contravention of British law (in this instance the Marine, & c., Broadcasting Offences Act, 1967; see NA HO 255/1219). The physical geography of the sea had confused the crew. As Bob Noakes noted in his autobiography:

“Through a miscalculation on the part of the Captain of the American tug which towed her [the ship] back into deep waters, having lost a bollard and several metres of deck rail, she recommenced broadcasting *within* British territorial waters” (1984, page 236, original emphasis).

The affective and stormy sea, which had torn the deck rail and redistributed a bollard, led to a ‘miscalculation’ or ‘disorientation’ which impacted life on board implicitly as the crew then began to broadcast illegally within British waters. Indeed in this case the Radio Regulatory Department of the Home Office boarded the vessel and shut down transmissions (only for Radio Caroline to recommence broadcasts later that month). The sea was, in short, a power beyond their control. Nothing could have prevented (navigational equipment aside) their disorientation. Even with the stars and sun, they struggled to find course, immersed by the three-dimensional dynamism and motionful materiality of the sea. The drifting in 1990 however was far more serious.

Again in November, severe more-than-human conditions, strong winds, rain, and heavy seas meant the ship *Ross Revenge* was pitching dangerously in its already exposed anchorage at Falls Head. As the ship moved violently, the anchor chain twisted and snapped, leading the ship to drift. Worse still, the wind direction meant the ship was heading towards the Goodwin Sands, a notorious area in the Thames Estuary where the seabed drastically shallows and many ships have foundered. Aware that conditions were rough, the crew of the Radio Caroline ship were tuned into the radio. An emergency message was broadcast over and over regarding a drifting ship, which was at the whim of the affectual sea. Yet as Steve Conway told me:

“We heard it on the radio—that a ship was drifting. We knew it wasn’t us, our world view couldn’t take that it was us, because we were so used to being in the same place” (interview, May 2009).

Even when the Dover coastguard authority contacted those on board about their precarious situation, it failed to sink in. The ship had drifted more than 18 miles (Conway, 2009, page 195). As Steve Conway wrote:

“my brain needed more time to take [it] in We couldn’t be . . . the Goodwin Sands was almost eighteen miles away from Falls Head We couldn’t have drifted eighteen miles without realising it. We just couldn’t” (2009, pages 194–195).

The sea certainly had a power of its own affecting the cognitive and physical ‘*bio* (life)’ on the ship by destabilising routines and evoking senses of disorientation. Thus as Lambert et al write, “strong ocean currents”, “monsoons”, and other “more than human” elements which arise in maritime worlds all affect, shape, and impact those worlds (2006, page 482). This

shaping and impacting creates distinctive cocompositions and cofabrications which differ from those arising between other elements [notably the ‘*bio*’ (life) and ‘*geo*’ (earth)]. The sea has a particular quality, a forceful quality which challenges and complicates the ability of humans to express power back onto it; instead resulting in a different sort of composition where humans have no choice but to submit to the power of the sea. Bringing the sea into focus allows recognition of a composure between nature and human life where human life may not have power over the livingness of the world; and when it does, only in respect of managing (rather than shaping) this elemental force. Moreover, the web of relationalities between the more-than-human sea and human life is in fact much broader as other, nonterrestrial elements play a role in these relations—the sun, moon, and stars—in creating relational pulls which impact oceans and providing markers for orientation in times of chaos.

Conclusions

Whatmore has contended that within the new cultural geography, the “*earthlife* nexus was written out of, or more accurately, into the ancestral past” of the discipline, rather than featuring in its future (2006, page 601, original emphasis). However, with the manifold ways in which the more-than-human might be recognised and debated, it is fast becoming an important ‘re-turn’ for thinking productively about the world we live in. And this world is not limited to the terrestrial or ‘earthly’ sphere. There is a need to examine a *hydro-life* nexus too. Indeed as geographers have opened the remit of their studies out towards the seas and oceans, the significance of more-than-human investigations becomes paramount because of the dominance of the natural world within this sphere (Langewiesche, 2004). To write out the more-than-human in studies of the sea is to write out the very foundations which such studies hope to enrich. Thus in this paper I have proposed moving more-than-human geographies outwards, encompassing the study of how the ‘*bio* (life)’ and ‘*hydro* (sea)’ are in relationship with one another; questioning these very relations, when the sea is such a vast, awesome three-dimensional expanse of nonterritorial, motionful, continual force.

Indeed I have contended that the relations between humans and nature typically theorised in work in more-than-human geographies are challenged when considering the ways people interact with oceans. Firstly I have argued that the motionful, dynamic, and three-dimensional materiality of the sea has a series of visceral affects on sensing bodies; affects which are often beyond the control of those affected. Humans can only manipulate the sea’s power to best effect to lessen the capacities of the hydroworld. Furthermore, this affectivity was distributed as those listening to broadcasts back on dry land also felt the physical and extraterritorial influence of the sea. The sea is therefore not simply an affective force for those at sea; but also those beyond the sea. Scholars have long argued that everything is, in one way or another, connected through the flow of life, to the sea (see Mack, 2011) and here I have presented such a holistic view of these relationalities; rethinking the nature of those relationalities as the sea intrudes, encroaches, and permeates spaces beyond its mapped location, with little respect for human control. I have further argued that not only did radio pirates harness the sea to dampen its affects via anchorages, which may if they were lucky lessen the impact of tides, waves, and storms; but also, as I have further contended, on occasions, the power of the sea is such that it is beyond comprehension, resulting in disorientation and confusion for those immersed in the hydroworld. These two lines of argument, which I have pursued in the paper, suggest that a reframing of relations between human and nonhuman worlds is necessary in view of the affective agency of specific materialities, specific elements, specific forces, such as the sea.

I have contended here that the relations of cocomposition and cofabrication between human and nonhuman worlds are specific when a forceful elemental agent, the size and scale of the sea, comes into play. Humans cannot force power back onto the sea; shaping nature as they might the earth or soil. Rather humans create new relations, ones where because of the materiality of the sea—as motionful, deep, and dynamic; its quality as extraterritorial—they

can but harness its qualities, or manipulate its materiality to best effect. Of course this is still a form of mastery over the sea, but more for the purpose of survival; given the sea's ability to affect—its power to possess and take a hold over humans.

I want to end the paper by pointing to the possible implications this research has both for more-than-human geographies and for geography as a discipline more generally. In this paper I have taken the sea to be a material—a watery, undulating, deep material; a material which is affective; a material which can only be managed; a material which is in many ways a 'force'. Thinking of the natural elements of air, wind, tides, quakes as *forces* might be a particularly poignant way to conceptualise the notion of relationality explored in this paper (see Bennett, 2004). The sea here is a force, natural and incessant which humans can but harness and manage, rather than outright shape and control. The term force begins to tap into affectivity of the sea; the continual power of elemental materialities. There is arguably a need to explore further the ways in which the materialities described by Anderson and Wylie (fire, air, liquid) are also forces and forces bound in much larger relations such as those described in this paper.

For example, in this paper I have described a new relationality between human and nonhuman worlds; one which challenges the reciprocal nature of cocomposition—where humans cannot put force back onto nature as they might usually. Certain material forces result in unequal, one-sided relational compositions. This rethought relationality is true also when we think about the wider web of connections involved in hydroworlds. The sea, a force which bears influence upon physical and human landscapes and animal and human life, is a force subject to the broader, nonearthly force of the moon, whose gravitational pull affects the movement of the seas. Yet the seas cannot refract power back onto the moon. I have argued then, that when the sea is brought into focus, different relational geometries emerge.

In addition, I have advocated that the sea not be thought of as a discrete, independent, sealed elemental entity but instead one which is itself cocomposed of a broader extraterrestrial assemblage. As such, where social and cultural research of the oceans must lead is a geography beyond the earthly (as in planet earth); a geography in which 'earth writing' becomes universe writing. Indeed, only when taking into account what happens beyond the limits of our planet can we truly comprehend the geographies of our oceans and the relationalities and affects spun from them (see also Jones, 2011). This voyage is beyond the remit of this paper, but here I have begun to offer new ways of conceptualising oceans in geography; as well as posing challenges to notions of cocomposition and cofabrication in research on more-than-human geographies.

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References

- Anderson B, 2006, "Becoming and being hopeful: towards a theory of affect" *Environment and Planning D: Society and Space* **24** 733–752
- Anderson B, Wylie J, 2009, "On geography and materiality" *Environment and Planning A* **41** 318–335
- Barnett C, 2008, "Political affects in public space: normative blind-spots in non-representational ontologies" *Transactions of the Institute of British Geographers, New Series* **33** 186–200
- Bear C, Eden S, 2008, "Making space for fish: the regional, network and fluid spaces of fisheries certification" *Social and Cultural Geography* **9** 487–504.
- Bennett J, 2001 *The Enchantment of Modern Life: Attachments, Crossings and Ethics* (Princeton University Press, Princeton, NJ)
- Bennett J, 2004, "The force of things: steps to an ecology of matter" *Political Theory* **32** 347–372
- Blackburn T, 2007 *Poptastic! My Life in Radio* (Cassell, London)
- Chapman R, 1992 *Selling the Sixties: The Pirates and Pop Music Radio* (Routledge, London)
- Conway S, 2009 *Shiprocked: Life on the Waves with Radio Caroline* (Liberties Press, Dublin)

- Crang M, 2010 "The death of great ships: photography, politics, and waste in the global imaginary" *Environment and Planning A* **42** 1084–1102
- Crisell A, 1997 *An Introductory History of British Broadcasting* (Routledge, London)
- Donnelly M, 2005 *Sixties Britain* (Pearson Education, Harlow, Essex)
- Edensor T, 2007, "Sensing the ruin" *The Senses and Society* **2** 217–232
- Hinchliffe S, Whatmore S, 2006, "Living cities: towards a politics of conviviality" *Science as Culture* **15** 123–138
- Hitchings R, 2003, "People, plants and performance: on actor-network theory and the material pleasures of the private garden" *Social and Cultural Geography* **4** 99–113
- Humphries R C, 2003 *Radio Caroline: The Pirate Years* (The Oakwood Press, Yately, Hants)
- Ingold T, 2004, "Culture on the ground: the world perceived through the feet" *Journal of Material Culture* **9** 315–340
- Ingold T, 2007a, "Materials against materiality" *Archaeological Dialogues* **14** 1–16
- Ingold T, 2007b *Lines: A Brief History* (Routledge, London)
- Ingold T, 2008, "Bindings against boundaries: entanglements of life in an open world" *Environment and Planning A* **40** 1796–1810
- Jones M, 2009, "Phase space: geography, relational thinking, and beyond" *Progress in Human Geography* **33** 487–506
- Jones O, 2011, "Lunar–solar rhythm patterns: towards the material cultures of tides" *Environment and Planning A* **43** 2285–2303
- Lambert D, Martins L, Ogborn M, 2006, "Currents, visions and voyages: historical geographies of the sea" *Journal of Historical Geography* **32** 479–493
- Langewiesche W, 2004 *The Outlaw Sea: Chaos and Crime on the World's Oceans* (Granta Books, London)
- Lewis P M, Booth J, 1989 *The Invisible Medium: Public, Commercial and Community Radio* (Macmillan, London)
- McCormack D, 2008, "Engineering affective atmospheres: on the moving geographies of the 1897 Andree expedition" *Cultural Geographies* **15** 413–430
- Mack J, 2011 *The Sea: A Cultural History* (Reaktion, London)
- Marine, & c., Broadcasting Offences Act, 1967 *Public General Acts—Elizabeth II* chapter 41 (HMSO, London)
- Marwick A, 1998 *The Sixties: Cultural Revolution in Britain, France, Italy and the United States 1958–1974* (Oxford University Press, Oxford)
- Noakes B, 1984 *Last of the Pirates: A Saga of Everyday Life on Board Radio Caroline* (Paul Harris, London)
- Norbert P, Psuty N P, Steinberg P E, Wright D J, 2004, "Coastal and marine geography", in *Geography in America at the Dawn of the 21st Century* Eds G L Gaile, C J Willmott (Oxford University Press, New York), <http://dusk2.geo.orst.edu/gia/coma-gia.pdf>
- Past Masters No. 6* 2007 "Caroline 'For the moment goodbye'", Radio Caroline Society, <http://rcsocietysales.co.uk>
- Peters K, 2011, "Sinking the radio 'pirates': exploring strategies of governance in the North Sea, 1964–1991" *Area* **43** 281–287
- Philo C, Wilbert R, 2000 *Animal Spaces, Beastly Places: New Geographies of Human–Animal Relations* (Routledge, London)
- Rudin R, 2007, "Revisiting the pirates" *Media History* **13** 235–255
- Rycroft S, 2002, "The geographies of Swinging London" *Journal of Historical Geography* **28** 566–588
- Skues K, 2009 *Pop Went the Pirates II* (Lambs' Meadow Publications, Horning, Norfolk)
- Steinberg P E, 2001 *The Social Construction of the Ocean* (Cambridge University Press, Cambridge)
- Territorial Sea Act, 1987 *Public General Acts—Elizabeth II* chapter 49 (HMSO, London)
- Thrift N, 2004 "Intensities of feeling: towards a politics of affect" *Geografiska Annaler B* **86** 57–78
- Walker J, 2007 *The Autobiography* (Penguin Books, London)
- Whatmore S, 2002 *Hybrid Geographies: Natures, Cultures, Spaces* (Sage, London)
- Whatmore S, 2006 "Materialist returns: practising cultural geography in and for a more-than-human world" *Cultural Geographies* 600–609