Chapter One

INTRODUCTION

Placing and Situating Ocean Space(s)

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[Note: some small revisions were made after this draft]

Abstract

This chapter introduces the Routledge Handbook of Ocean Space. It places and situates the volume within a body of academic work that has turned towards the seas and oceans in the social sciences and humanities, stressing the importance of a spatial lens for making sense of watery worlds. It then lays the routes of the book, introducing the sections of the Handbook and chapters therein. The chapter concludes by drawing together emergent themes in the volume whilst also acknowledging the limitations of its scope, alongside hopeful possibilities for future oceanic scholarship that takes seriously the concept of space.

Oceanic (re)turns: Placing and situating

The oceans are all around us, so says the famous book title about the exploration of ocean environs by Rachel Carson (1989 [1951]). It is certainly also true that ocean scholarship – writ through a spatial lens – is now all around us. This 'spatial' scholarship has (re)shaped and (re)defined geography as a discipline, but also the wider socio-cultural and political sciences and humanities that have taken interest in themes of space, place, territory and time. Geography – the disciplinary 'home' of spatial studies – is no longer wholly terra-centric, where a firm earthy bias exists (see also Peters and Squire, 2019: 101). Although historically lagging behind physical geographies, which have long taken to coastal and near shore spaces, human geography has now established an extensive catalogue of watery work (see Steinberg, 2001, through to Anderson and Peters, 2014; and for reviews see Peters, 2010, 2017; Steinberg, 2009, 2013, 2017). There is now a wealth of work from subfields including historical geographies (for example, Anim-Addo, 2011; Davies, 2019; Lambert et al., 2006; Legg, 2020; Lehman, 2020; Stafford, 2017), cultural geographies (such as Anderson, 2022; Choi, 2020; Satizábal and Dressler, 2019; Spence 2014; Walsh and Döring, 2018), more-than-human geographies (see Bear, 2017; Gibbs and Warren,

2015; Johnson, 2015; Squire, 2020; Wang and Chien, 2020 to name but a few), as well as specific areas such as 'carceral' geographies (Dickson, 2021; Stierl, 2021; Peters and Turner, 2015). The works listed, which 'take to the seas', are not exhaustive. Much work has also focused on the (geo)political dimensions of oceans (Childs, 2020; Dittmer, 2018; Dunnavant, 2021 and Squire, 2021 among others) and the geographical aspects of ocean management and conservation (for example, Fairbanks et al., 2019; Gray et al., 2020; Jay, 2018).

The sea offers an empirical space that departs from the landed spaces of the city, the street, or even the underground or the air. In turn it offers a conceptual space for rethinking socio-cultural, political, economic and environmental spatial relations; for reflecting on notions of space, time and motion (Anderson and Peters, 2014; Steinberg and Peters, 2015; Peters and Steinberg, 2019); and for problematising the often-stark differentiations made between 'land' and 'sea' (Hau'ofa, 1995, 2008; George and Wiebe, 2020; Glissant, 2007; Pugh, 2016; Underhill-Sem, 2020). Indeed, the past two-to-three decades have witnessed an 'oceanic turn' in disciplines from geography to anthropology, from art to literature studies, and beyond (see, for example, Blum, 2010; DeLoughrey, 2019). Whilst history has long-held associations with maritime pasts, histories of ocean worlds are increasingly shifting away from dominant narratives of state conquest and technological mastery to deploy perspectives from the Global South, writing sea stories that suggest different affinities between the ocean, its forces, and its various more-than-human inhabitants. In these ways, the ocean, it seems, has shifted from a marginal to a central concern. In some areas, though – and it is important to note – the ocean has *always* been central to thinking and being (Hau'ofa, 1995, 2008). It is western scholarship itself which can be accused of emptying the ocean for its own filling.

This book is placed and situated within this 'oceanic turn' (or 'turns', acknowledging multiple knowledges of oceanic import), and is situated at the intersections of various disciplines engaging 'ocean space'. In turning to 'ocean *space'*, we signal an understanding of space that is increasingly prevalent within academic geography: space understood not simply as bounded area or metric calculation but as a force that shapes and is shaped by histories, scientific endeavour, cartographies, art practice, political action and so on. The 'oceanic turn' is thus part of a broader 'spatial turn', whose impacts extend far beyond the discipline of geography (Warf and Arias, 2009). Although space is a central concern of geography, space – as this book goes on to show – is also fundamental to ways of thinking through literary practice, international relations,

anthropology, leisure studies, and beyond. This is because space is both a commonplace word as well as a specific tool. It pertains, most generally, to a dimension in which we live (the other dimension being time). Yet theories of space – how space is understood, grappled with and deployed – matters. Space has been understood as a geometric and abstract plane – separate from social life, a mere backdrop or surface on which lived experience occurs (see Cresswell, 2014 for an overview). However, space is now better understood as co-constituted through practice and performance, forged and formed through relation (Massey, 2005). These spatial ontologies are important. Earlier theorisations of space were fundamentally mathematical – an inanimate and unchanging surface of a grid-like dimensions. The sea has oftentimes been read and constructed through such a framing – a backdrop to movement, a space to be traversed, a zone devoid of social interest – a mere plain of blue (see Mack, 2013; Steinberg, 2001 for discussion). Such understandings have, it has been argued, relegated the sea to the 'background' or the 'outside' in the social and political imagination (Steinberg, 2009). Yet, with post-structural, postcolonial and wider relational theories of connection, the ocean is understood as a space of dynamism, flux and flow – a lively agent with its own material force, and one also made meaningful through past, present and future (in)actions.

This book understands space in the latter framing: space as co-constituted through human- and more-than-human engagement; space as an active agent; space as relational. The book hence understands the ocean as a space that is not an empty void to be filled with stories of its significance, but a space already rich, full, varied – ever emergent, ever becoming, ever in flux. Ocean space here is not singular, given or static. Indeed, it might be better to speak of ocean *spaces*, rather than an ocean 'space'. The book to follow sees ocean spaces critically examined as constructions, deconstructed through practices and performances, interrogated as sites of politics, and engaged as zones of possibility. The chapters offer provocations on a number of ideas related to ocean spaces/spaces as oceanic (empire, culture, discipline, solidarities, ice, mappings, science, depths). They explore ocean spaces through these frames reflecting on their spatial shapes and significances. Whilst the book plots concepts and topics, activities and events, phenomena and 'things' in relation to ocean spaces, the book is not an encyclopaedia or dictionary of 'key' terms. It will not provide a definitive companion to ocean space(s). Rather, it is an intervention by authors to consider ocean spaces in their various guises, and an invitation to

readers to reflect on what such relations, between space, the ocean and the chapters at hand, mean.

Route laying: Outlining the book structure

There is often – almost always – more than one option when plotting a route across the ocean. Similarly, there is – and was – more than one way for us, as editors, to plot a route through this book by placing and situating chapters in relation to each other. Indeed, given the fluid, wet, churning nature of the ocean and also the ocean's non-linear histories, there is no perfect or smooth way to arrange the chapters that follow. Chapters have been loosely arranged into themes: 'frameworks and knowledges'; 'economies and labour'; 'histories and politics'; 'experiences and engagements', and 'environments and 'worlds'. This is just one mode of organising that was possible. Another option may have been to structure the book around different world 'oceans' (from the Indian, Atlantic to Arctic Oceans and beyond), or to have vertically split the book between surface practices of engaging oceans and those pertaining to 'the deep'. Other arrangements would have likewise been feasible.

The structure here, though, has been designed to allow readers to readily identify chapters of interest, but it should be noted it is in no way intended to 'fix' the chapters in place. There is overlap between the sections and the chapters, whereby themes leak, spill and even flood into others. For example, Waiti and Wheaton's chapter on culture and leisure practices in the opening section on 'frameworks and knowledges' could as easily have been placed into the section on ocean 'engagements and encounters', or 'power and politics', whereby the Māori oceanic experiences described are lived, embodied and affectual but also never outside of colonial power dynamics past and present. Similarly, chapters by Griffin or Featherstone on processes of protest and acts of solidarity (respectively) are as much centred on ocean labour as they are focused on understanding histories and power. Accordingly, there is more than one way for readers to traverse the structure and it is hoped that the book's format will allow for easy navigation of key ideas (from overarching single-word titles) and the possibility of finding more specific theoretical concepts and empirical studies from the subtitles.

Section Two follows this introduction by setting out framings by which the ocean has been encountered and understood and, in turn, interrogating the knowledges of the ocean(s) that are constructed and perpetuated, but also challenged and transformed. The section begins with an

exploration of mapping: one of the central frameworks by which oceans have been represented and 'known'. In this chapter, Jessica Lehman charts the operation of mapping and its politics in inscribing oceans with meanings for their use, as well as shifting this to other forms of ocean knowledge, which inform and also complement mapping practices – modelling and measuring (see also Helmreich on wave science, this volume). Following this, Antony Adler's chapter, from the perspective of history of science, relates the ways in which, again, particular representations or imaginations of oceans – particularly deep ocean spaces – in the ocean sciences, such as Oceanography, create particular interpretations, shaping knowledges of the watery environment. Shifting not only from the horizontal shoreline to the vertical water column and the seafloor, and from the late 18th century to the present, Adler also moves from the cartographic practices discussed by Lehman, building from her scientific overviews of models and measurements of the ocean to show how the science of our oceans has been developed. Common to Lehman and Adler is an interest in how technologies play a role in the constructions of ocean knowledge. Indeed, technology is a theme that repeats throughout the book, specifically in chapters by Fawcett et al. (in a discussion of deep-sea mining), Squire (in relaying geographies of ocean depth) and Crawley et al. (in their artistic engagements with ocean worlds).

Continuing along a critical thread of how particular knowledges of the ocean are constructed (developing from Steinberg's germinal text, 2001), Basil Germond's chapter next examines the role of representation of the ocean – instead through a framework of nation-state seapower and maritime security, deriving from International Relations and Security Studies perspectives. Here the section shifts from the role of science to more explicitly political-, state- and military roles in oceanic construction (with an appreciation that the nation state is also crucially part of mapping and scientific practices, as described in preceding chapters). Germond explores the long-held assumption foregrounding the approach of 'modern' states to security practice: the idea of an empty ocean (see also Hadjimichael, this volume). He then tracks the concept of *Mare Liberum*, or 'free seas', and how this has facilitated ocean (ab)uses that have fed into contemporary modes of ocean governance. In demonstrating these constructions, Germond points to the stability of narratives about 'good' and 'bad', and 'acceptable' and 'unacceptable' ocean engagements (e.g. the dominant discourse of the state as the upholder of governance, and the pirate, illegal fisher and so on, as the 'rogue' in need of governance). Although such

perspectives endure in some IR scholarship, Germond problematises these 'dominant' representations made through state political and military practice.

Further rethinking the relationship between the state and the ocean, the next chapter expands from the western readings of seapower described by Germond to examine the workings of empire and imperialism more explicitly. Through a framing of the workings of anti-colonialisms and 'heterodox' readings of ocean space shaped by decolonial practice, Andrew Davies demonstrates, vitally, the ways in which frameworks for working with ocean space(s) have been limited, often by the roots of academic thinking and scholarship in imperial or Eurocentric thought. He works through a variety of spaces – the port, the port city, the ship, and military and carceral spaces – to show the complexity of power relations wrought through imperial practice, challenging dominant 'top down' readings and showing how imperialism was not just perpetuated but is also perpetually contested.

Following from this necessary engagement with oceans beyond dominant western and global north framings, the last two chapters of the section continue to engage with the construction of ocean knowledge through decolonial approaches and lenses. These are not alternative or counter constructions in a negative binary to the dominant western discourse but, rather, unsettle and unseat those narratives to reveal greater democracy in ways of knowing and working with the oceans. Leesa Fawcett, Elizabeth Havice and Anna Zalik's chapter advances Davies' attention towards empire to the more specific spatial frame of the frontier. The frontier looms large in ocean knowledge regimes. Like Germond's explanation of an 'empty ocean', the frontier, relatedly, posits the notion of an ocean expanse ripe for exploration and exploitation. Linking back to Adler and Lehman, Fawcett, Havice and Zalik show how frontiers are epistemological – known through particular regimes, tools and technologies that legitimise practices such as imperialism and capital appropriation and extraction. Focusing on three examples – the data shaping deep seabed mining prospects; data technologies that increasingly make visible and available ocean space for democratising engagements and use; and decolonised, anti-anthropocentric, Indigenous knowledges concerning oceans – the authors consider the role of frontier thinking in the exploration, extraction, conservation and commodification of the ocean, as well as necessarily challenging it. Their chapter links forward to the next section (see Thomas, Bond and Diprose) in a discussion of deep-sea mining, but also in the politics related to spaces of economic resource.

Completing the section, Jordan Te Aramoana Waiti and Belinda Wheaton zoom in further than the examples of the previous two chapters by presenting a post- and de-colonial account of ocean culture departing again from western constructions of the empty ocean or the blank frontier. Contrasting another dominant narrative – that the land and sea are separate and distinctive spaces – the authors examine how ocean cultures are known, understood and lived by indigenous Māori, where there is no neat line between 'liquid' and 'solid' worlds. They show the importance of zooming into specific cultural practices in knowing the ocean, which, in turn, upend powerful constructions that write-out localised, traditional and Indigenous knowledges of, and practices in, ocean space. Indeed, Waiti and Wheaton demonstrate how oceans are a space of cultural and political contestation for Māori, wrought through colonial constructions. Yet they also show how everyday leisure practices – waka hourua (double-hulled voyaging canoe), waka ama (outrigger canoe), and heke ngaru (surfing) – represent and embody ways of living with the ocean that are vital for promoting Māori cultural traditions and self-determination.

Having worked through various ways the ocean is constructed (and deconstructed) and knowledge is forged, formed, shared and challenged, **Section Three** turns to the broad theme of ocean economies (economics being one of the predominant drivers of 'frontier' politics and state interventions in and across the oceans, as shown by Fawcett, Havice and Zalik, and also chapters by Germond, and Davies – see also Campling and Colás, 2018, 2021). The section also explores, relatedly, ocean labour – the very visceral and felt processes of 'work' at sea. It begins with an intervention considering the spatialities of fishing and, notably, fisheries governance. Madeleine Gustavsson and Edward Allison explore the spatial dimensions and territorialising logics that tend to drive fisheries management but that sit uncomfortably with the livelihoods and lived experiences of fisherfolk. Important to Gustavsson and Allison's chapter is a reading of maritime work that goes beyond the economic to pay attention to how fishing is a 'way of life'. Echoing the preceding chapter, this contribution voices ocean knowledge not from the 'top down' but rather from localised and indigenous perspectives. The chapter ends by exploring how policy needs to be 'done' differently to reflect the worldviews of fisher communities and to push back against the discriminations, injustices and harms that existing policies and approaches to management can enact (see also Satizábal and Batterbury, 2018). In this chapter, Gustavsson and Allison frame some of their geographic discussion of fishing to processes of Marine Spatial Planning (MSP).

In the chapter that follows, planning scholar Stephen Jay introduces MSP as a uniquely spatial innovation for organising and coordinating uses in marine space, where there are often competing economic goals for use – fishing being one, but offshore wind energy, oil and gas extraction, shipping and aquacultural developments, as others. MSP remains a relatively novel intervention in planning, but is increasingly being advocated for in the governance and management of national waters in order to optimise and order marine resources. Jay's chapter explores the ways in which planning practice (much like the governance regimes explored earlier by Germond) are built from landed foundations (see Peters, 2020; Peters et al., 2018) whilst also signalling attention to the material qualities of the ocean – its fluidity and flux – in the shortcomings of MSP processes. Indeed, Jay stresses the need for 'fuzzy boundaries' in the planning of marine space that better reflect the oceans' geographies (see Jay, 2018). This materiality of the ocean – its depth, texture, shifting states, qualities and character – are further explored in later chapters (see, in particular, Section Six, 'Ocean Environments, Ocean Worlds').

Shipping, as a key industry enfolded in MSP activities, is the next focus of the section. As Borovnik, Chua and Heins note in each of their chapters, shipping is central to the functioning of the global economy as we know it (see also Cowen, 2016; Khalili, 2019; Rose, 2013). And, as the geographer David Harvey has also lamented, the shipping container – the core mode of moving goods by vessel, at sea – is the singular most important (yet deceptively simple) technology "without which we would not have had globalisation" (Harvey, 2010: 6, cited in Martin, 2013: 1022). In this part of the section, Charmaine Chua examines the place of docks and the process of docking, illustrating, as in earlier chapters, the fluid relations between land and sea – in this case those enabled through the technology of the port and its associated infrastructure and labour force. Chua demonstrates not only the development of the dock through time but how port governance has likewise developed by shaping global spatial economic structures through public and private investments and an increasing corporatisation of port services, which see "ports insert themselves into global intermodal networks defined by the imperatives of global capital accumulation, rather than by local or public interests" (Chua, this volume). Chua's assessment of docking and ports demonstrates the complex economic and infrastructural geographies that drive economies whereby basic port location is less important than entire chains and networks of connections within which particular ports are embedded. This critical reading also allows us to understand the inequalities wrought through ports and docking

practices, not least for workers imbricated into the neoliberal workings of global logistics and commodity chains (see also Featherstone's discussions of seafarer solidarities in the Section 'Ocean Histories, Ocean Politics').

From the dock and its place in the global circuit of goods, the next chapter turns to the specific place of the 'box' or container in understanding connections between economy, space and the sea. Matthew Heins does not tell a straightforward history of the shipping container but, rather, shows how this essential technology of global economic trade has been built on spatial standards – linked to the very microarchitecture of the box itself (see also Heins, 2016; Martin, 2016). He explains how the success of the box lay in the standardisation of its spatial dimensions to enable its intermodal capabilities. He further shows how this spatial standard is further embedded – or *imposed* – into wide-reaching infrastructural systems, with wide-reaching effects, reshaping space and blurring traditional spatial boundaries (such as between land and sea, and ship and shore).

Maria Borovnik next completes a trio of chapters attentive to economics, labour and shipping, with an explicit focus on seafarers. Borovnik's longstanding work on seafarer worlds has offered necessary insights into the often-hidden world of the global oceanic workforce (see Borovnik, 2007, 2011, 2017, for example). In this chapter, she draws from both existing literature and her own ethnographic and interview work to explore the intersections between seafarers' mobilities in space and the inequalities that can result in offshore workplaces. Here Borovnik examines seafarers through two lenses – their place as facilitators of the global economy, and their more localised place on board ships. She demonstrates, in both cases, the difficult working environments seafarers face and negotiations they must navigate. Central to Borovnik's chapter is an account that alerts us to, and gives voice to, those often forgotten in the servicing of the capitalist systems. She shows how, for example, international and national regulations and stipulations on contracts create seafarer uncertainties and precarities in terms of time onboard. She likewise explains how hierarchies and everyday discriminations onboard place some seafarers in the most challenging of circumstances – not least when it is impossible for seafarers to 'jump ship' on the job. Borovnik's attention to seafarers lives also alerts us to seafarer rights, not least where she examines the influence of the Covid-19 pandemic on seafarers' health and wellbeing.

Scoping back out from shipping as a focal point, the final two chapters of this section consider how space and the economy interrelate in broader examples. Maria Hadjmichael, working in the nascent field of Marine Social Science through a social and political science framework, offers a reflection on the so-called 'Blue Economy' – the use of the ocean, in sustainable ways, for economic benefit. Hadjimichael complicates and problematises the 'blue' growth strategies that have been lauded for their potential to bring sustainable development to the ocean (see also Schlüter et al., 2020). Using the European Union's Blue Growth Strategy as an explicit thinking tool on the topic, Hadjmichael shows how growth raises questions of rights – rights that are inherently spatialised. Drawing from Henri Lefebvre and David Harvey, she argues that the blue economy constructs "injustices" over the "ownership, use and exploitation" of the seas (Hadjimichael, this volume, see also chapters by Fawcett at al. and Thomas et al., both this volume). Using the radical frameworks of Marxism, Hadjmichael raises vital questions related to blue economic growth, which concern "who is affected and how: who becomes dispossessed over their rights to this space (or resource) and who 'wins'" (Hadjimichael, this volume). Closing the chapter, Hadjimichael raises the possibilities of *de*growth in the oceanic commons to challenge regimes of enclosure and privatisation.

Completing this third section, Amanda Thomas, Sophie Bond and Gradon Diprose explore intersections between resources, the economy and politics. Focusing on processes of resource extraction in Aotearoa New Zealand, this chapter links back to the discussion of frontiers in Section Two, and forward to debates on 'Security' by Bueger in Section Four. The authors explain how resource geographies are more-than-economic and pertain to questions of sovereignty, rights, and Indigenous and climate justice (also linking back to Hadjimichael, previous chapter). Central to Thomas, Bond and Diprose's chapter is a focus on practices of enclosure and appropriation – themes raised in earlier chapters by Fawcett et al. and Waiti and Wheaton on the role of colonial practices in such processes. This chapter shows the capacity to push back on dominant ocean discourses and the expressions of power articulated through assertions of autonomy by Indigenous, as well as environmental groups. This chapter continues to demonstrate the necessity for studies to engage post-, de- and anticolonial thinking, not just for understanding how ocean spaces are shaped unequally but also for envisioning how they could be democratised in the future. Also central to Thomas, Bond and Diprose's chapter is the question of security. Drawing from a critical feminist perspective, they consider resource

geographies as part of complex questions over future in/securities, which are embodied, felt and lived. They highlight the unevenness of security for different groups of people, dependent upon "how security is defined, by who, and for who" (Thomas et al., this volume). This 'take' on security is a vital one for shifting matters of security from the state to the complex affectual politics of security on 'different' bodies.

The focus on security is taken up further in **Section Four** as attention turns to 'Ocean Histories, Ocean Politics', starting with a more classic take on security and ocean space offered by Christian Bueger. Whilst Bueger shifts to thinking of security through the frames of International Relations, he nonetheless offers a critical start point to the section by demonstrating how the ocean is made a security space through new spatial configurations, wrought by constructed maritime threats (see back to Germond, Section Two). Here, Bueger explores the political work of marking new spaces such as the High-Risk Area (HRA), established in response to Somali piracy; the so-called Southern Route for Afghan Heroin; and, finally, Areas of Interest and Common Operating Pictures as they are established in recent maritime domain awareness structures. He shows how particular problems are defined in the ocean and the spatial responses that arise, often based on regimes of spatial surveillance that transcend traditional state boundaries. He coins the notion 'pragmatic' spaces to show how space becomes constructed around particular, constructed security 'problems'.

Continuing this attention to the securisation of the ocean, the next chapter turns to dominant agents of security in sea-space: navies. Duncan Depledge tracks a history of navies, pointing to the global inequality in their distribution and thus countries' abilities to assert naval power across the globe. From this starting point, Depledge explores how (largely Anglophone) naval thinking and practice have evolved since the 1500s, with particular attention to how naval strategists have conceptualised and, in turn, spatialised the sea. Although, Depledge argues, the agendas or objectives of navies in the assertion of power has not changed much over the centuries, the ocean environment has. He demonstrates how geographic interests in oceans' volumes and materialities, and how engaging with spatial ideas of geo-power, hybridity and assemblage could assist in deepening understandings of naval operations beyond descriptive historical or political accounts.

In the following chapter, Isaac Land homes in on the operations of power within the space of the ship via an historical account of the spatial politics of discipline at sea, expressed

through the 'total institution' of the ship (following Aubert, 1982 and Rediker, 1987). In a series of examples, Land tracks the complexities of power expressed on ships – merchant and naval, and between different seafarers: captains, first officers, sailors, enslaved people – in respect of discipline and punishment. He exemplifies that, whilst discipline was often hierarchically exercised, there were often expressions of concealment, indiscipline and resistance on board ships. Land shows how the layout and internal spaces of ships mattered to discipline and punishment – to its operation and to the ways those at sea pushed back against it (see also Peters and Turner on discussions of the convict ship, 2015). Although this chapter contributes to our understanding of dominant shipboard modes of politics/power (maritime security, navies, onboard ship discipline regimes), it also marks a transition to the latter chapters in this section that are devoted to resistance and solidarity.

Next, Paul Griffin continues to complicate maritime hierarchies and dominant expressions of power, with a focus on the place of protest in ocean spaces and the spaces connected to ocean worlds. Drawing from radical geographic approaches, Griffin considers acts of protest *at* sea; protests constructed through movement *across* the sea; and *landed* protests articulating grievances of the sea. Continuing themes introduced in Land's chapter, Griffin demonstrates the spatial operation of power 'from below' in forms of protest onboard ships and in the 'lived' and 'dynamic' space of vessels. He shows how protest is constitutive of the making of subaltern identities (see also Featherstone, 2005) and how the seas can become distinct spatialities of disobedience and activism, dissent and resistance. Drawing also from his own work on maritime protest in Glasgow, UK, Griffin charts everyday struggles and exceptional moments. He points to the sea as a productive space in understanding resistances and explains that grievances and protest are ever tied to broader processes of colonialism, slavery and capitalism. For Griffin, exploring protest is a necessary task for acknowledging "alternative and resistant visions that similarly illuminate wider controlling and structural influences" (Griffin, this volume).

David Featherstone follows Griffin's discussion of protest, taking on the topic of 'Solidarities' as they relate to seafaring and maritime labour (see also Chua and Borovnik, in the previous section). Featherstone interrogates the ways in which solidarities take place on connected spaces of land (such as the port), as well as at sea, and the networks that connect seafaring solidarities across space. Indeed, solidarities are not always expressed in specific

locations, but traverse time and space linking disparate communities around shared politics. Featherstone shows how solidarities are shaped by space and constitutive of its shaping. He also demonstrates the diversity of solidarities, from maritime solidarities stemming from 'white labourism' and their discrimination towards racialised minorities, to anti-colonial internationalisms, as well as contemporary articulations of maritime solidarity constituted in opposition to the rise of far-right politics. Featherstone's chapter concludes with reference to the solidarities that formed around the German captain, Carola Rackete of the Sea-Watch rescue group, in relation to her activities rescuing migrants from the Mediterranean – a theme taken up in the section's final chapter, by Charles Heller, Lorenzo Pezzani and Maurice Stierl.

In their chapter, which combines the critical work of political science, architecture and film studies, Heller, Pezzani and Stierl examine the role of overlapping spatial jurisdictions in creating particular political geographies of the Mediterranean, which result in creations of humanitarian and *de*-humanitarian politics in relation to saving lives at sea. Indeed, Heller et al. complicate the assumptions of state and inter-state (EU) roles in humanitarian action and stress the role of non-governmental organisations in the vital work of preventing migrant deaths at sea. Like other chapters, Heller and colleagues highlight the fluid relationships that span land and sea in the form of ocean governance (see Bueger, and Germond, this volume), ocean political contestation (Featherstone, and Griffin, this volume) and also the lived experiences of those crossing the oceans (see Chua, and Borovnik, also this volume). This chapter also continues a thread running through the book regarding the ways that turning attention to ocean space allows an exposure of the limitations, and even the violences, of 'traditional' 'master narratives' (Lambert et al., 2006) that, when left uninterrogated, crowd out radical politics and positions that upend dominant modes of understanding and knowing and that are alert to modes of justice and care (see Hadjimichael, and Thomas et al., this volume).

In Stephanie Jones' wide-ranging chapter, she relays the work of writing as a space-making medium for engaging and encountering the seas and oceans, as well as methods of creating and constructing particular ocean spaces for readers. Leading from the previous section and Heller et al.'s examination of migration at sea, Jones reflects upon literature including Nam Le's *The Boat* (2008) and Behrouz Boochani's *No Friend but the Mountains* (2018) to show how such texts "narrate oceans as spaces of unfreedom and freedom" and, as "an enquiry into the 'necropolitics' of the nation state, and what liberty might, can and can't mean" (Jones, this

volume, citing Mbembe, 2003). Jones' chapter marks the start of **Section Five** 'Ocean Engagements, Ocean Encounters', which explores both literary and artistic relations with ocean space, as well as affectual, embodied and sensory explorations of the ocean through the acts of swimming, sailing, surfing and diving. Jones sets out by considering what constitutes literature at sea (from the ship's log to natural history observations) which can be deployed to critically explore the ocean as a way of reading literature. The chapter also charts through literary approaches to Indian, Atlantic, Pacific and comparative regional sea-studies to interests in the submarine, the deep ocean, and icy seas (see also chapters by Adler, Squire and Dodds who further attend to these themes respectively). Notably, Jones demonstrates the post- and de-colonial agencies spun through ocean space (echoing other chapters in this volume: Davies; Fawcett et al.; Featherstone; Thomas et al.; Waiti and Wheaton) this time in writing practice, where she powerfully concludes that, "world literature' is being energetically reconceptualised as a decolonising idea" (Jones, this volume).

In the next chapter, Crawley, Critchley and Neudecker likewise demonstrate the capacities of creative practice for encountering the ocean, through their focus on visual arts. The chapter starts by outlining how ocean space has been subject to imaginings in art – not least as a space often hard to access and distanced from the land (see also the chapters by Adler and Squire). The authors then creatively and reflexively turn to examining the creative practices of Critchley and Neudecker – sharing their artistic works and the processes behind their work in capturing elements of ocean space for reflection. They show how art can be a mode of "responding to the effects of technological, ecological and economic exploitation of the oceans", demonstrating the claim of Neimanis et al. (2015: 11) that art can be "a catalyst for new kinds of engagements" which might "*in a very real and political sense*, produce the world we seek to live in" (Neimanis et al., 2015: 10, emphasis in the original). Here the authors also grapple with the ways in which ocean spaces are abstracted through representational artistic practice, but are simultaneously also material, wet, geophysical spaces: a point that is elaborated on throughout the final section of this book on 'Ocean Environments, Ocean Worlds'. They take note of the ways the imagined ocean is not separate from an ocean space that is stubbornly felt. This is picked up further in the four chapters to follow, which are alerted to the oceans' material form and engagements with the voluminous, liquid, salty, treacherous, sublime space of the sea through practices and performances of swimming, surfing, sailing and diving.

Ronan Foley explores the contemporary zeitgeist for wild swimming and the ways swimming offers an immersive and embodied encounter with the ocean, shaped by the ocean's various characters and qualities. Indeed, he notes the importance of accounting for relations between bodies and (blue) spaces as swimmers traverse dry to liquid worlds and negotiate more-than-human encounters with "sharks, jellyfish, dolphins, jetskis, boats, surfboards", the list goes on (Foley, this volume). Foley is also attentive to the inequalities of swimming – to the social geographies and 'in and out of placeness' (Cresswell, 1996) that swimming spaces reveal through politics of access linked to gender, race, age, ability and intersections of those and other identities. Finally, building from his extensive research, Foley expands on the relations between ocean space and health geographies and the therapeutic affordances of swimming, shifting beyond linear biomedical accounts linking healthy bodies to healthy seas to a rather more critical understanding that situates the potentials of ocean space and health within questions of access, belonging, dignity and equality.

Foley's chapter on swimming is followed by Jon Anderson's chapter that explores the leisure pursuit of surfing. Surfing has been a niche, yet longstanding, interest shaping studies under the banner of 'geographies of the sea' – because of the very fact that surfing unlocks complex socio-cultural, political and environmental geographies, all the while complicating them in the context of the mobile, dynamic space of the sea (see Anderson, 2016, and Evers, 2009; Olive, 2019; Waitt, 2008). In this chapter, Anderson continues to understand the ocean as an immersive space in charting the 'what' and 'where', 'how', 'why' and 'who' of surfing. Anderson takes a critical approach that resonates with Waiti and Wheaton's earlier chapter on culture and leisure practice that, while alert to the colonial politics of surfing (surfing as socio-cultural spatial appropriation) and its inequalities – particularly around the gendered access to space – also recognises surfing's potentials for resisting masculinist forms of sea-engagement and 'mastery' of the waves. Indeed, Anderson shows how surfed practices territorialise pockets of water, with perpetuated spatial practices determining the politics of 'lines ups' and 'drop ins', conversely, creating moments of spatial rupture. Importantly, Anderson shows how the body and ocean coalesce or 'converge' in surfed practice, further complicating ideas on the relations between land and sea, body and water, ship and shore, which span this book.

In the following chapter, outdoor education scholar and professional sailor Mike Brown examines the platform of the boat in active engagements and encounters with the ocean. In an

account that draws heavily on ethnographic methodologies, Brown explores embodied connections with the sea and how practices of sailing lead to particular oceanic knowledges. Through drawing out examples of sailing-as-practice, Brown reflects upon the material qualities of ocean space that come to define it as a space of alternate experience from the land, but he also uses these qualities to challenge the often-held western perception of the sea as empty (and in turn, bound-able for governance, or claimable for resources, see earlier chapters by Bueger, Fawcett et al.; Gustavsson and Allison; Hadjimichael; Thomas et al.). As Brown relays, "[f]or the sailor the sea is neither empty nor featureless", this "could be considered as "a crude and lazy shorthand, a way of saying 'I'm too busy to look, to see this as it is in itself'" (Brown citing Dorgan, 2004: 94, this volume). Looking to, and *feeling* the sea, Brown reflects on the materiality of the ocean (including its surprising solidness [see also Dodds, this volume]), the place of skill in navigation, and the emotional dis/connections with water (through feelings of grace, or through the affectual qualities of water, see also Anderson's discussion, this section, on the sensation of 'stoke' whilst surfing). Building from his previous work on the sea (Brown and Humberstone, 2015; Brown and Peters, 2018), Brown concludes with a reminder of the difference between writing *about* the sea and writing *with* the sea through encounters, and what this spatial difference could evoke for environmental citizenship.

Also taking an immersive approach, Elizabeth Straughan's chapter on diving concludes the section. She takes the section 'full circle' through exploring artistic practice and representation but also hints towards the final section of the book and its coverage of oceanic spaces as three-dimensional, volumetric zones of deep ecological crisis. Drawing from ethnographic accounts and conversations, Straughan's chapter considers engagements through diving that are both touristic (recognising the necessary addition of tourism to accounts of ocean space) and part of working practice (the underwater being a workplace, adding further nuance to understandings of labour and the ocean explored by Borovnik and others in Section Three). Straughan's chapter further points towards the more-than-human underwater world, providing a connection to chapters in the section to follow on the deep (Squire) and ocean life (Johnson).

The final section of the book – **Section Six** – turns to 'Ocean Environments, Ocean Worlds' and pays attention to the geophysical properties, material shapes and state-shifting capacities of oceans, and their role in Earth Systems. It also brings to the fore the forces and impacts of climate change that are submerged, but present, in other chapters of the volume. The

section begins where the previous left off by exploring ocean depths. Here Squire's chapter complements Adler's contribution on the role of understanding deep space in the history of ocean science, as well as Crawley et al. and Straughan's chapters on underwater encounters and engagements. However, Squire takes a more-firmly geopolitical approach in tracking ocean depths, including early oceanic representations and scientific work, submarine cable-laying and technological communications development, attempts at living underwater trialled during the Cold War by 'aquanauts' (see also Squire, 2021) and the 'gold rush' touted to emerge with deep-sea mining (see also Fawcett et al., this volume). Squire's chapter concludes by thinking of depth in relation to rising seas and climatic emergencies, arguing that this demands a reimagining of ocean depths as well as the development of ocean platforms (surface technologies) for countering the increasing depths around us.

Staying with the deep sea, Elizabeth Johnson's chapter explores more-than-human ocean life. Whilst this theme has arisen in previous chapters (see Crawley et al. and also Straughan), Johnson's chapter critically examines the relations of human and more-than-human worlds at sea through three important frames: biopolitics and ethics, consumption and extraction, and geopolitics and militarisms. Johnson begins by reflecting on ethical questions related to how people and life at sea relate: reframing simple questions of use and overuse of sea life as resource to instead ask critical questions of how marine life is positioned and what this means in relation to acts of care, protection, stewardship, and even grief in relation to biodiversity loss. How life is calculated determines how it is valued and the ethical practices associated with it. Here, Johnson reminds us that colonial politics has also shaped how marine life is treated – in public perception and policy-scapes. In the second section she complicates 'blue economy' understandings and economic readings of ocean space and the place of marine life in entanglements of consumption (see also Hadjimichael, this volume), before closing the chapter with an attention to the ways in which marine life is enrolled in various military activities linked to geopolitical strategy. The latter attention (see also Squire, 2020) notably provides a necessary reading of intersections between ocean space and military practices that extend the naval and seapower discussions of earlier chapters (see Depledge, and Germond).

Continuing a thread of connections between science and ocean space, Anthropologist Stefan Helmreich next takes on consideration of a specific element of ocean space – the wave. Departing from engagements of waves as described through surfing practice (see Anderson, this

collection), Helmreich's chapter tracks back to Lehman's opening chapter on methods of modelling and measuring oceans, and forward to the close of the book in considering the more-than-human potentials of waves and how wave science helps us to grapple with anthropocenic change and sea-level rise (see also Squire, and Savitzky, this section). Helmreich's chapter demonstrates that, even as waves are stubbornly material, they are also "thinkable as media" (Helmreich, this volume), where technologies help scientists 'read' the tangibility of waves in specific ways, constituting particular knowledges of the oceans' form, mobilities and reach. Like the previous chapters, Helmreich connects histories of wave science to understandings of colonial practice, war and military action, in and through spaces at sea. Waves also, as Helmreich notes, are "hybrid forms that mix the phenomenological, mathematical, technological, legal, and more" (this volume). This idea of the connections, mixings and fluid relations that occur in (and beyond) the ocean leads to the next chapter where Jeremy Schmidt examines the Hydrosphere, the "the combined mass and movement of all water on Earth in all its forms" (Schmidt, this volume).

In this expansive chapter, Schmidt does the necessary work of exploring an 'ocean in excess' (Peters and Steinberg, 2019), an ocean that is not simply oceanic, in occupying the distinct bounded 'blue' spaces between land on the map, but rather the ocean as part of the water cycle, and wider Earth System. Charting understandings of the hydrosphere from the late-19th century through to the 21st century, Schmidt's chapter, like earlier ones, interrogates how ocean spaces are 'known' through scientific endeavour and geopolitical strategy. Most vitally, in merging 'ocean geographies' with broader geographies of water, water cycles, environment and geology, Schmidt provides a critical consideration of how the histories of bodies of water (the histories of oceans and oceans long disappeared) are linked to ways of thinking geologically, to global readings of the hydrosphere and ocean space particularly that understand it as part of integrated Earth systems.

The turn towards geology and to *earthly*, or *grounded,* ways of thinking 'ocean space' is followed by the penultimate chapter on ocean spaces that exist beyond their often-assumed liquidity. Here, Klaus Dodds explores sea ice and the shifting geographies and properties of oceans (solid to liquid, liquid to air) and, in turn, the spatial engagements that arise when the ocean is icy. Dodds draws from longstanding work (notably see Dodds, 2018) to explore sea ice as imagined, elemental, geopolitical – in other words, as something representational, material

and practiced. He explores how ice is enrolled in both Indigenous and popular depictions of the ocean in ways that create conflicting knowledges of maritime space – as a site of conquest, as a political opportunity, as the environment of one's everyday lifeworld. Dodds further highlights the legal geographies that emerge as sea ice complicates where international conventions largely fail to attend to the particularities/peculiarities of ocean as ice, sea as solid. Dodds' chapter also considers the ever-present spectre of ice melt and the potentials of this for reshaping global geographies and mobilities.

The final chapter of the collection deals with this knowledge of an increasingly oceanic world of sea-level rise through exploring the place of islands, and particularly the strategies of island nations such as Singapore, to cope with an encroaching ocean. Drawing on, and problematising, themes of land-sea relations, this concluding chapter complicates (and inverts) those relations by showing how the sea is made land through processes of dredging and reclamation, and how islands adapt through vertical construction to the seas around them. In this chapter, Satya Savitzky builds from his formative work on how climate is forging new spatialities through the emergence of Arctic sea routes with increased ice melt (see Savitzky, 2016) to examine the production of new geographies through island building and its associated politics. Returning full circle to the very start of this book, Sativizky's chapter demonstrates how maps of the ocean – maps of the world – are ever in flux.

From ocean geographies to ocean *spaces*: Themes, limitations and potentials

What is clear from the structure of the book, previously outlined, is that this is a book about ocean *spaces*, not necessarily ocean *geographies*. The distinction is important. Although geography is present (in a classical sense of absolute and relative location) – as are *geographies* (in the sense that the book presents multiple frames for understanding locale and senses of place) – the key contribution of the volume, as noted earlier, is to present a provocation on *spatialities* in relation to the ocean. In focusing on the spaces that are made in, and made from, the ocean, at times we turn away from the discipline of Geography *per se* to consider how scholars from a range of fields engage space in making sense of relations with the ocean. The book thus reaches far beyond the formal discipline of Geography to engage a wide range of individuals working with the ocean – including disciplines such as History, Sociology, Security Studies, Border Studies, International Relations, Literature, Politics, Anthropology, Architecture, Health and

Leisure Studies, Education and Film Studies, as well as those working in the nascent field of Marine Social Sciences and those working outside of the academy as professional artists, or those conducting research as independent scholars. It collates voices across career stages and across various oceans. Within the areas outlined, authors also work within and across sub-disciplinary settings – such as mobilities studies or the history of science, or within geography, for example, as part of political, socio-cultural or economic approaches to the discipline.

What is striking is that, as our chapter synopses have highlighted, in spite of various disciplinary or interdisciplinary starting points, there are key threads running through the chapters. Regardless of their disciplinary orientation, authors in this volume display a keen interest in the various constructions of ocean spaces; how particular ways and regimes of 'making' the oceans shape how they are understood and used; and how those understandings and uses can also be undermined. Linked to this, the book grapples, throughout, with identifying the work of 'dominant' oceanic discourses but likewise highlights the power and possibilities of knowing ocean spaces beyond western imaginaries. Indeed, running through a breadth of chapters are post, de, and anti-colonial approaches that are vital to understanding the ways in which oceans are spatial, and that *space writ large* is shaped by various ocean ontologies. That said, the book can be accused of lacking a wider diversity of authors, whereby a greater representation of Global South scholars and decolonial scholarship is needed. Patricia Noxolo's reminder should be heeded: "decolonisation begins from the scholarship of black and indigenous peoples, and should be led by that scholarship" (2017a: 318). The radical nature of such work, the necessary discomforts and ruptures it brings to academic spaces – and, in this case, ocean spaces – is further demanded, or else such ideas lose agency as they become "harnessed and domesticated in Western academic spaces" (Noxolo, 2017b: 342). It is not enough to say future work must do more. We as editors must do more to step forwards and *back* in more fully engaging decolonial perspectives on ocean spaces. Our focus on the open-ended, relational politics of ocean spatialities, rather than the bounded world of ocean geographies, opens space for these voices but it does not, on its own, fill it, and thus certain critical voices, even in this volume, remain unheard.

As Fawcett et al., note in their chapter, decolonial lenses also alert us to ocean spaces that are constituted by non- and more-than-human life, where indigenous peoples have relations to environments, animals, elements, and sealife that differ from the stark lines drawn in global

northern and western epistemologies. This is a reminder of another core thread of the book – one that is alert to ocean spaces complicated by the agencies of marine life, and the very geophysicality of oceans themselves and their relationality to other earthly spaces. Indeed, the handbook reflects on the qualities, characters and properties of ocean spaces as well as the animate and agential capacities of life within. However, the book does not exhaust all of these threads and, again, further contributions may have considered broader planetary-oceanic connections (e.g. the linkages between air, atmosphere and oceans, or skies, surveillance and drones and the oceans). Likewise, the book attends to the vertical depths and volumes of water within 3D articulations of geopolitics but could have expanded to think about the vertical aerially (following work on satellite observations, mentioned in Lehman's chapter, and further work 2016, 2018), as well as expanding more on the concept of ocean surfaces – mobilities across them, and the flattening of routes, plans and projections for policy (see Peters, 2020).

Indeed, perhaps a final shortcoming of the book is its relative lack of attention to policy and law. The United Nations Convention on the Law of the Sea surfaces, throughout, alongside a host of other sea-related legislative tools and policy guidance. However, the book only indirectly addresses how thinking spatially about the oceans and thinking of oceans as spaces informs, deforms, crosscuts and undercuts strategies and directives for the very futures of ocean spaces, their practical management for human use, and their more-than-human health. The United Nations Decade for Ocean Science (2021-2030) and emergent climate reports being conceived, researched, written and disseminated (e.g. the Intergovernmental Panel on Climate Change (IPCC) 2021) alongside measures to control migration and offshore asylum seekers and to deter pirates and prevent stowaways all point to the ways this book could stress, to a greater degree, what a spatial perspective on ocean issues could add to discourse and debate and to building more democratic ways of relating to the ocean in policy. Nonetheless, the book presents an attempt to take space seriously when working with the oceans, and to take seriously oceans as spaces of multiplicity, meaning, materiality, movement, and more. As Emma McKinley aptly writes in the foreword to this collection, "the lenses of geographical inquiry and their particular focus on the interconnectivity between space and spatiality can provide us with critiques and insight which will be invaluable to how we live, work and play in our ocean spaces, both now and in the future". This book starts this project. It is hoped others will continue it.

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