# Surfing and sustainability

## An emerging agenda

So far this book has achieved a number of goals. It has introduced sustainable development and sustainability and offered a relationship between this amorphous concept and that of surfing. It has emphasised the value of exploring this relationship at the theoretical and the methodological level. It has established my relationship to the research area and the impact that this has had on the research process. What has not yet been explored is the literature base that can inform the empirical work. The broad and interdisciplinary nature of research that can be applied to the relationship between surfing and sustainability makes it difficult to identify a specific body of work that can be explored. The following chapter therefore achieves three principle goals. The first is to provide a broad overview of the academic literature that relates to surfing. The second explores specific elements of the surfing literature to make initial connections between the theoretical framework and the empirical observations. And finally this chapter elaborates on literature that specifically addresses surfing and sustainability.

The last five years have seen a significant rise in the number of published academic work relating to surfing. This has been evident in multiple disciplines. Ford and Brown (2006), commenting on their seminal work, highlight the following. Although the disciplinary homes of the authors are human geography and the sociology of sport, the tone of their book is primarily transdisciplinary, but hopefully contributing to the newly emerging field of scholarship of surfing studies (Ford and Brown 2006: 2). What is obvious from the outset is that there are few significant attempts to comprehensively categorise the range of issues present within the surfing literature. Notably, Scarfe et al. (2009a) explore research-based literature for coastal management and the science of surfing, outlining categories and associated subcategories that relate to this, and quantifying the number of studies that relate to each. This is a very useful categorisation for the issues involved and with little adaptation can be modified to represent sustainability-related themes.

These categories are not static or definitive, and criteria, in reality, cross multiple boundaries and will and should evolve over time. They do, however, illustrate the breadth of issues that are present, all of which are relevant to the study

*Table 4.1* Sustainability and surfing subcategories

| Category | Criteria |
| --- | --- |
| Surfers and the wave | Stoke and affect – describing waves, relating surfers to waves, including skill levels, surfboard types, manoeuvres performed, surfability |
| History frames | Co-evolving historical narrative<br>Surfing relationship to nature |
| Tourism – movement and destination | Impacts of surf tourism on local communities<br>The character or value of surf tourism<br>Transportation – carbon footprint |
| Economics | Economic value of surf breaks<br>Surfonomics<br>The blue economy<br>The circular economy |
| Sociology | Sociological aspects of surfing, including surfing culture, social protocols at surfing breaks, gender and surfing, localism |
| Industry | Governance, industry growth and transition, surfing equipment, supply chains, technology, merchandise, marketing, clothing, surfing films and magazines, and clothing |
| Coastal management | Coastal management theory, protecting surf breaks, recreational coastal amenities, environmental impact assessments, surfers and coastal use conflict, examples of impacts on surfing breaks |
| Sport management<br>Sport studies | Theories of sport management, governance and practice |
| Physical processes | Oceanographic and sedimentary conditions; surfing breaks including artificial breaks, hydrography, measurements |
| Numerical and physical modelling | Modelling of theoretical and real surfing breaks |
| Artificial surfing reefs – sediment dynamics, design and monitoring, construction | Sediment and morphological responses to an ASR, design of ASR<br>Monitoring of effects to surfing amenities, coastal stability, habitat, swimming safety<br>Construction techniques and monitoring |
| Biomechanics | Fitness, surfing techniques, sporting injuries |
| Geography | Place, space, culture, affect, industry dynamics |

Source: Adapted from Borne 2017a.

of sustainability. While it is not my intention here to comprehensively review the categories outlined above, I will outline the following pertinent categories to further demonstrate a relationship between surfing, sustainability as well as risk and modernity. This predominantly focuses on surfers and wave, history, tourism, economics, sport management and sociology. In so doing, areas relating to industry and coastal management are also explored.

## Surfers and the wave

The discussion begins with surfers and waves, which was touched upon at the beginning of this chapter, highlighting ideas of relational sensibility, affect and stoke (Anderson 2014; Booth 2013). It has been variously argued and contested, as is the case in this volume, that the potential for surfers to act as environmental stewards and leaders for environmental awareness and sustainability-related issues is a natural instinct because of the direct contact with the ocean. As Whilden and Stewart maintain:

> If surfers can start to live a low carbon lifestyle and if the surf industry can develop low carbon products and practices it may be able to engineer a transformation in society itself to more rapidly engage with the $CO_2$ problems itself and its solutions.
>
> (Whilden and Stewart 2015: 131)

The relationship between contact with the environment, how we understand nature, internalise knowledge and subsequent action is complex, at both the individual and institutional level (Macnaughten and Urry 2000; Hulme 2009; Stranger 2011). These issues will be revisited in Chapter 6, especially in relation to the presentation of the data relating to the Deep Blue Survey. What is germane at this point is to address the question of what a focus on affect means for the relationship between surfing and sustainability. Booth (2013) suggests that the:

> recent turn to affect in the social sciences and humanities among scholars which believe we should take bodies and feelings more seriously opens the door to affect as a context for surfing narratives: Indeed some authors have employed stoke as a context.
>
> (2013: 8)

Booth's comments are timely as the idea of stoke has formed the foundation for a significant assessment of narratives in sustainability and surfing, and will form the basis for Chapter 5 (Borne and Ponting 2015). This work drew on over 40 prominent members of the surfing community on a cross-sectoral basis. This included academia, industry, not-for-profits, media, celebrity and government. The work highlights the diversity and ambiguity of sustainability as a concept. It displayed a plethora of perspectives about how sustainability can be achieved

from a surfing perspective, but also where surfing had failed and departed from its perceived holistic, spiritual origins.

## Surf history

A chronological history of the origins, decline and then rise of surfing that begins in Hawaii has been well documented (Endo 2015; Irwin 1973; Laderman 2014; Lawler 2011; Stranger 2011; Warshaw 2010). More recently, specific lenses of surfing's history have been applied. Scott Laderman (2014) explores a political history of surfing which traverses a number of issues from the imperial roots of modern surf culture, the role of surfing in South Africa and how key surfing figures responded to the political landscape from the unique surfing narrative. Later Laderman applied this thinking to sustainability, where he critically discusses the role of the surfing industry (Laderman 2015). Focusing on surfing industry dynamics, Warren and Gibson (2014) explore the cultural production for the surfing industry in Australia, and in this volume these authors update this assessment, presenting fresh insights into surfboard manufacturing and relating this directly to sustainability. What is evident is an innate narrative associated with surfing's history that explores the separation of surfing from the simple naiveté of the early days to the more complex structures of a modern and postmodern world. What I suggest is that these narratives run in parallel with debates on sustainable development and the broader separation of humanity from nature through processes of industrialisation and modernisation. Drawing again on Booth (1999), as an overall historical perspective on surfing that directly feeds into the contemporary debate on sustainability, the following is instructive:

> The critical questions for historians of surfing are why have surfers lost their 'sense of wonder' at the majesty of waves, and why do they no longer respect waves, or marvel at their beauty? The immediate physical environment of surfing provides part of the answer. Today the overwhelming majority of surfers live in conurbations. Instead of escaping into nature they immerse themselves in greasy, foul-smelling waters that assault and jolt their senses. The ocean is the built environment's sewer and, like the dirty ashen skies above and the pallid concrete ribbons and blocks which abut urban beaches, it is a constant reminder of human degradation and contamination.
>
> (Booth 1999: 52)

Booth goes further than this to emphasise that at the epistemological level there are multiple and fractured narratives that may exist at the nexus between modernity and postmodernity (2009). This sees postmodern and reflexive modern themes of paradox, uncertainty, subjectivity and the dissolution of causality come into play and offer a further justification for viewing surfing from a risk society perspective. Table 4.2 identifies the key elements of the relationship between sustainability and surfing in a risk society.

*Table 4.2* Epochs of surfing modernity

| Epoch | | Sustainability | Surfing |
|---|---|---|---|
| **Pre-modern** | | Harmony | Subculture |
| | | Nature | Outlaw |
| | | | Spirituality |
| **Modern** | | Population expansion | Expansion |
| | | Urbanisation | Globalisation |
| | | Transportation | Cultural co-evolution |
| | | Space–time compression | Nature separation |
| | | Political unity | Forecasting |
| **Postmodern** | **EM** | Technologically driven | Technological solution; material advancement |
| | | Weak sustainability | Green capitalism |
| | | Technological fixes | Integrating sustainability |
| | | Ecological butterfly | Artificial natures, wavepools |
| | **RM** | Reconfiguring nature | Activism |
| | | Questioning progress | Sub-political |
| | | Strong sustainability | Alternative political formations |

As described in Chapter 3, the research presented in this book functions within the postmodern epoch and highlights the tensions between ecological modernisation (EM) and reflexive modernity (RM). Informed again by the sociotechnical perspectives, historical perspectives also allow for a broader understanding of transition to sustainability. As Geels an Schot (2010) point out, historical perspectives offer 'useful heuristics for studying long term processes: multi-causality, co-evolution, lateral thinking, anit-reductionism, patterns, context and the use of different time scales' (Geels and Schot 2010: 15). Moreover, the authors point out that a historical understanding of phenomena provides the following advantages for understanding transitions. First, studying future transition cannot be tested and ongoing transitions are not complete for analysis. Second, transitions analysis requires a deep understanding of process, consequences and agency. And third, many case studies can be assessed and compared which help develop conceptual frames and theories of transitions over time.

### Surf tourism

This departure from the naturalistic base has been predominantly accredited to the rapid rise in and commodification of surfing in the past five decades. The most visible manifestation of this and certainly a topic that has received the most attention in the academic surfing literature is surf tourism (Buckley 2002; Buckley *et al.* 2017; Ponting *et al.* 2005; Ponting 2009; Towner 2016).

Initially, and while not exploring surfing tourism specifically, Buckley offers a very valuable review into the evolution and integration of sustainability into the tourism literature. Importantly, it is observed that 'the key issues in sustainable tourism are defined by the fundamentals of sustainability external to the literature on sustainable tourism' (2012: 529). As such, Buckley's review applies some key components of sustainability generated externally to the sustainable tourism literature, including population, prosperity, pollution and protection. This observation applies across the themes identified here for sustainability and surfing. Significantly, Martin and Assenov (2012) provide a systematic review of over 5,000 pieces of literature between 1997 and 2011 related to this sub-field of surfing academia. The authors found two consistent themes within the surf tourism literature. The first are the impacts that surf tourism is having within the developing world. These studies are 'mainly directed toward capacity management in relation to social, economic and cultural interaction with host communities' (2012: 107). The second explores the central theme of urbanisation in developed countries on established surfing locations that have seen increasing numbers, and echoes Booth's earlier statement. Drawing on these insights and those of Danny O'Brien, Martin and O'Brien (2017) explore the complex and integrated nature of surf systems.

While intimately connected to the surf tourism literature, the economics of surfing has received increased attention. This has predominantly been

articulated using the term 'surfonomics', which moves into areas relating to environmental economics and attempts to incorporate broader social and environmental issues into the economic analysis (Nelson 2015). Foundational and continued work by Lazarow *et al*. (2008) explores the value of recreational surfing and associated cultural impacts.

### Sport management/studies

With introductory comments on the edgeless nature of surfing in the introduction to this book, there is emerging and relevant literature in the increasingly coalesced field of sport management. There are relevant debates reacting to theory (Cunningham *et al*. 2015) and sport governance (O'Boyle and Bradbury 2014). There is an emerging body of literature that is now exploring sport and surfing more specifically within development contexts with an emphasis on community capacity (Abel and O'Brien 2015; Edwards 2015; Ponting and O'Brien 2015; Wheaton *et al*. 2017). Also, there has been a proliferation of surfing-related NGOs in the surfing space that are specifically related to community capacity, but also more broadly sustainability-related issues. These organisations have been termed surfing development organisations and relate to multiple areas of relevance to sustainability (Borne and Ponting 2015). These include social issues, inclusion, gender, and environmental protection (Britton 2015; Schumacher 2015; also see Roy 2014), market and culture transformation (Whilden and Stewart 2015) and coastal land protection (Dedina *et al*. 2015).

### Sociology and an age of sustainability

The final category I want to explore is sociology, which forms a prominent perspective on surfing, particularly when applied to discussions relating to culture and subculture. Mark Stranger's work has already been discussed and will be revisited later in this book. As already discussed, Ford and Brown (2006) have drawn together social theory and surfing, weaving a number of traditional sociological approaches with a broad range of surf literature. This work has gone a great distance to taking a serious academic approach to the nature of surfing. Using a combination of popular surf culture, academic literature and social theory, the book is the first to discuss contemporary social and cultural meaning of surfing. Pertinent areas include mind and body, emotions and identity, aesthetics, style, and sensory experience. Key themes include evolving perceptions of the sea and the beach, the globalisation of surfing as a subculture and lifestyle, and the embodiment and gendering of surfing. As already discussed in Chapter 1, Lawler (2011) extrapolates the narrative of surfing as subculture or radical culture, exploring the relationship this has with capitalism, with an emphasis on the United States.

## Sustainable surfing: a new research field is born

The previous discussion has built up a broad discussion around the nature of surfing and sustainability. Each of the identified components above relate to a discussion on surfing and sustainability that help inform both the theoretical and empirical components of this book. However, as I continued to explore the surfing–sustainability relationship, I started to become anxious that the sheer volume of issues and phenomena that could be drawn into this frame would mean that any analysis that I could present would be partial and misleading. And of course, all research to a certain degree must for practical reasons set parameters that it works within, inevitably displaying only a partial picture. And also, as an interdisciplinary researcher I am comfortable with the formlessness of exploring topics from new perspectives. However, in this situation it felt very much like I had jumped out of an aeroplane without the proverbial parachute. And to this end I decided to coalesce the disparate threads of surfing research in a dedicated book on surfing and sustainability. Initial contacts were made with those working in the field that could and were willing to contribute to the book; the proposal was drafted and sent out for review. Responses were critically positive and a contract was secured. The editing process then began, with initial instructions to authors and the book was published in March 2017. It is important to expose this process for the purposes of this volume, as the timelines of both significantly overlapped, with work on one book impacting on the work of the other. And to complicate, or indeed reinforce, the development of an understanding of surfing and sustainability, *Sustainable Stoke: Transitions to sustainability in the surfing world*, after a number of delays, was finally published in April 2015.

Ultimately, *Sustainable Surfing* responds to a significant gap in the academic literature on discussions relating to surfing and sustainability. It is also a result of a need for me to be able to articulate my own data and analysis in a more coherent body of knowledge that could inform it. What follows provides an overview of this work, and throughout *Surfing and Sustainability* the insights provided will be returned to on a number of occasions. Also, it is recognised that *Sustainable Surfing* is part of the broader ethnographic process and therefore oscillates in this volume between literature and a data source.

*Sustainable Surfing* explores many relevant interrelated issues. This includes the scale and the impact of the surfing industry, the importance of the interaction between environment, society and economy, technological advancements, surfing's historical narrative, the role of surf activism and stakeholder engagement in coastal protection. It also includes issues relating to localism, overcrowding and surfing's impact on coastal environments; the creation of artificial surfing spaces; and what this means for surfing's future. These are all issues that have been dealt with in the surfing literature, but this is the first time that these issues have been directly related to sustainability. Moreover, in order to create a bridge between the contributions in *Sustainable Surfing* and my broader

research agenda, I explicitly relate the contributions to the risk and sustainability discussion (Borne 2017a, 2017b). The contributions in *Sustainable Surfing* were identified as responding to particular facets of the relationship between surfing and sustainability, which formed the overall themes and section headings of the book. The following discussion will look at the contributions within the context of these broader section headings.

## A systems approach

Steve Martin and Danny O'Brien set the context for the complex integration of the physical and the social worlds by exploring surf resource system boundaries. The authors build a progressive picture of the integrated nature of surf site boundaries that are interconnected beyond the specific site of surfing, exploring the physical features of the surfing habitat and the impact that humanity is having on the surfing zone. Focusing on surf habitat conservation, this sphere of influence is then expanded to the interaction between humanity and the surfing zone that draws explicitly on the language of sustainability, 'whereby individuals are concerned with using natural areas in ways that sustain them for current and future generations of human beings and other forms of life' (Martin and O'Brien 2017: 25). At this point the idea of stakeholder involvement and the development of management plans is also integrated into the sustainability scenarios, where the historical and cultural components are also highlighted.

The contested and complex nature of this relationship is emphasised through the lens of the surfing reserve. This resonates with a number of authors in *Sustainable Surfing*, who have underlined the importance of the surfing reserve, which provides a unique opportunity to explore the relationship between surfing and sustainability from multiple perspectives (Hales *et al.* 2017; Ware *et al.* 2017; also see Orchard 2017). In particular, surfing reserves provide an opportunity to explore one of the central concerns of sustainability of meeting complex needs and the pervasive relationship between economic development and preservation. The emphasis on surf resource stakeholders enables an explicit recognition of surfing's engagement with not only the coastal zone but also beyond this to include surfers and other members of the community that own or work in surf-related establishments, surf shops, surfboard makers and surfing schools. These stakeholders are expanded even further when considering surfing events. The authors highlight the fact that 'published research attesting to the physical and human "surf system" as a holistic spectrum of social, economic and environmental criteria and implications for sustainability is limited' (Martin and O'Brien 2017: 30).

The opening up of stakeholder networks has been discussed in the broader sustainability and sustainable development literature, largely within the context of governance (Borne 2010; Lafferty 2004). Governance was explored in Chapter 3 and is present in many of the narratives and discussions presented in this volume. It also forms an organising framework for the underlying

relationship between sustainable development and reflexive modernity and is articulated as a 'reflexive governance'.

Within this context the authors argue that two paradigms exist when looking at surfing sites in the social sciences: the first, the global value perspective (industry), and the second, the values embedded from local communities and individuals. Moreover, a whole systems approach has the following advantages. First, it revolutionises the understanding of coastal systems, community and sustainability. Second, it augments the role of social and environmental sciences. Third, it expands the epistemological base, including multidisciplinary and mixed methods research. Martin and O'Brien's contribution is representative of broader debates within the sustainability literature on complexity and the need to explore sustainability-related issues through a complex systems approach to obtain a realistic understanding of the issues involved (Harris 2007; Rotmans and Loorbach 2010). With that in mind, complex systems theory, despite a burgeoning literature, remains in its infancy and requires considerable critical debate and empirical exploration. Rotmans and Loorbach (2010) outline a number of criticisms of the approach, with an emphasis on complexity over statementing claims 'of a paradigm shift without a well grounded and empirically tested new paradigm' (Rotmans and Loorbach 2010: 122). To remedy this the authors suggest the inclusion of integrated assessment. Chapter 3 introduced the sociotechnical transitions framework combined with a risk society perspective as a way of operationalising this complexity.

### Technology, industry and sustainability

Leon Mach (2017) explores the complexity of the relationship between surfing and sustainability by exploring *surfing in the technological era*. Mach integrates a broad-ranging discussion on the role of technology, surfing and sustainability. Outlining a critical discussion of technological determinism, his chapter highlights the advantages of using a technology, environment and society framework. This is then applied to what Mach describes as the four technological dimensions, which include, physical, climatology, internet communication technology and artificial surfing. These issues will be explored in more detail in this book through the exploration of specific case studies. Moreover, Mach provides not only a broad-ranging discussion but also explores the epochal transition from a technological era to one of sustainability. These discussions resonate with the theoretical propositions of modernity as understood in a risk society. This further suggests the strength of surfing as a subject that can critically explore these meta-level theoretical discussions. For Mach, the era of sustainability is underpinned with an emphasis on agency and the ability to steer surfing onto a more sustainable path. This, Mach argues, is demonstrated through a series of conferences and events that have emerged in the past three years.

Anna Gerke (2017) explores more sustainable business practices in surf industry clusters by focusing on the development of the French surf industry in

the Aquitaine regions and the impacts on the local industry dynamic. This is an exciting addition to the literature, both from a geographical perspective and as a context for understanding surfing industry development and governance. Gerke introduces the term of clusters in the facilitation of sustainable surfing. The chapter also emphasises the importance of surfing as a resource that influences the behaviour of location and expansion. Interestingly, Gerke also stresses the relationships between surfers that form bonds that are stronger than that to a single company. This is not taken as a negative, but actually integrated as a positive attribute. As Gerke points out: 'The joint practice of surfing while being sometimes employed by direct competitors creates social links between employees across different cluster organisations via sport' (Gerke 2017: 79). Gerke identities some of the opportunities and barriers that exist for achieving sustainable business and emphasises the role of overarching bodies, in this case EuroSIMA, to help coordinate and promote sustainability within the clusters where a competitive and profit-orientated perspective dominates. This also highlights tensions that can exist at the global and local levels and echoes broader observation relating to the development of the surfing industry and its continued expansion. This is a theme that has emerged as a central component to the relationship between industry and the surfing culture that is evident throughout this research.

Chris Gibson and Andrew Warren (2017) examine surfboard making and environmental sustainability. The authors emphasise the pivotal role of surfboards in surf culture and what this means for sustainability. While a number of authors in *Sustainable Surfing* allude to the role of surfboards within surfing and particularly with a focus on the sustainability of materials, Gibson and Warren reinforce this with a sophisticated discussion on the interaction between global and local dynamics, informal subcultural scenes and what this means for sustainability. While emphasising the environmental aspect of sustainability, the authors also explore the complexity of multiple sustainability-related issues.

Gibson and Warren highlight the industry's local ties and point out that the soulfulness of surfing is still embedded in the manufacture of boards. However, despite multiple innovations, the authors argue that inhibiting sustainability improvements are factors linked to the industry's informal DIY origins, 'which has given rise to a distinctive and limiting mix of economic structure and subculture norms' (Gibson and Warren 2017: 97). The infamous Blank Monday incident where Clark Foam closed on 5 December 2005 was one of the pivotal moments that altered the surfboard industry. This was precipitated by specific environmental and workplace safety issues. As we will see in Chapter 6 of this volume, Blank Monday has had a significant impact on specific elements of the transitions process in surfing. The authors explore the relationship between locally made boards and the rapid expansion of distribution globally, as well as the technological advancements through computer and CAD/(CNC) systems such as Firewire and the impact this has on distribution and sustainability of surfboard production and consumption (see Hyman 2015). With that said, the

authors indicate that local shapers in small workshops often still exist because of local demand at key surfing spots. Emphasising the role of the ECOBOARD project initiated by Sustainable Surf, the authors explore the evolution of core materials from polyurethane and, post-Blank Monday, to the emergence of more ecologically sound materials and production techniques. This lays a strong foundation for discussions in Chapter 6, which highlight the evolution of the ECOBOARD from an empirical perspective.

### Informing policy domains

This section emphasises activism, political advocacy and the relationship of various actors or knowledge exchange and the creation of effective policies (see Cvitanovic *et al.* 2015). While there has been some work that has explored these issues in surfing (Wheaton 2007; Thorpe and Rinehart 2013; Laderman 2014, 2015), this new work is framed through the lens of sustainability. The clustering of authors in this section offers important insights into what has emerged during the research for this book as a central element of the relationship between surfing and sustainability. It develops a number of themes that are consistent throughout the other chapters and takes them forward through broader empirical work. Ware *et al.* (2017) and Hales *et al.* (2017) use the case study of Australia's Gold Coast to explore different areas of policy and activism. Ware *et al.* investigate surfing voices in coastal management. For the authors, 'surfers have a long and proud history of protest and advocacy on the issues that reflect the connection of surfers to the coastal marine environment' (Ware *et al.* 2017: 107). The emphasis in this work is on the lack of a surfing contract, which creates the tension between commercial and environmental interests. This is applied to the agenda-setting process that has led to the establishment of the Gold Coast City Surf Management plan. As the authors note:

> In contrast to many local government, management planning processes, the plan was instigated by a coalition of community surfing organisations and interested individuals as a mechanism to support the transition to a more institutionally recognised and socially acceptable social contract for surfing on the Gold Coast.
>
> (Ware *et al.* 2017: 108)

The authors use as their foundation the multiple streams theory that focuses on the three streams of politics, problem recognition, and the formation and refining of the policy proposals, emphasising that these streams often operate independently but occasionally converge either by chance or by design. What is also unique about this chapter is that the authors acknowledge their role in the policy landscape, forming a participant observation methodological structure. Lead author Dan Ware was 'instrumental along with others from the surfing organisations in forming a participatory, ground up approach to the Gold Coast

surfing social contract policy problem by drawing multiple streams together' (Ware *et al.* 2017: 120).

Drawing on a range of data sources, the authors effectively weave a narrative around each stream using highly relevant and topical examples. The authors highlight the eventual establishment of the surf management plan. 'The previous adversarial relationship between surfers and government had a negative consequence for the interests of both parties and the surf management plan is a way to decrease these consequences' (Ware *et al.* 2017: 122).

This is again a consistent theme throughout this book, as well as the broader debates that punctuate sustainable development and sustainability more generally. The discussion in Chapter 3 relating to theoretical propositions of a reflexive modernity and ecological modernisation gives context to these debates. Drawing on the language of the risk society, this represents the opening up of the political space through the idea of sub-politics. While there are a number of articulations of what this entails in purer and more diluted forms, it is essentially the opening up and reconfiguration of the political processes. As I have already discussed, a central tenet of a reflexive modernity is the humanist relationship with nature that has moved past the modernistic attitude of domination and moved to one of protection. Wheaton argues that this is an attitude 'that is prevalent in surfing discourse' (Wheaton 2007: 283).

Hales *et al.* (2017) extend the previous discussion by exploring surfers and public sphere protest and the role that surfing protest has in coalescing the surfing community. In particular, their chapter explores the importance of the public sphere responses. As the authors point out: 'The public space is not a singular place but rather there are multiple spaces where the public can variously attempt to express matters that they consider to be important to society' (Hales *et al.* 2017: 126). It is in these spaces that both public perception as well as political decision-making can be influenced. The authors explore the hybrid notions of the space of the waves and the influence of the media on these spaces. These debates resonate with a number of commentators and social theorists, who discuss the importance of the media in relation to environmental movements and society more broadly (Anderson 1997). For Beck, the space of politics is not the street but the television and he refers to this as real virtuality. This also resonates strongly the role of discourse in political contexts. For Hajer (1996) discourses play a constituent role in policymaking, where policymaking is seen as the struggle between various discourse coalitions through which storylines are kept together. Grounding his assertion in Foucault, Hajer argues that: 'Discourses are not to be seen as a medium through which individuals can manipulate the world as conventional social scientists suggest, it is instead part of reality and constitutes the discoursing subject' (Hajer 1996: 61). This is important because it is recognised that the discourses that relate to sustainable development and sustainability exist within a discursive power play and cannot be divorced from overt rhetoric. Also, understanding discourses in this context allows a metaphorical

connection to form between representation and non-representation, which responds to the call in Chapter 2 to engage with affect and experiences of stoke within surfing research. And it is this understanding that is applied to all discourse throughout this book.

The authors' argument is further developed through the notion of enclosure, where previously public good is included in the economic calculations and no longer offering value to society. This is then applied to a typology of surfing protest that is linked to Lazarow's (2007) notion of wave capital. These are then carefully applied to both historical and contemporary protests globally. Following this, the chapter focuses on a single case study on the Gold Coast to explore these dynamics in more depth. The authors explore the relationship between surfers' organising capacity, the increasing recognition of the economic importance of waves, as well as the importance of surfing culture and appeal, particularly in relation to the power of surfing celebrity to engender support. There are then multiple issues that converge in this chapter that add to the sophistication and complexity of the elements of surfing and sustainability.

Central to the discussion in Hales *et al.* (2017) is the notion of enclosure, the cordoning off of the public sphere land to reduce or negate the benefit to society more broadly. As the authors explained, identifying the economic value that translates into the policymakers' rubric of understanding played an important role in protest organisation and communication of the value of waves. Scorse and Hodges (2017) step outside the rubric of economistic analysis to explore the non-market value of surfing. The authors identify the growing work around 'surfonomics' and point to Neil Lazarow's foundational work in the area:

> To date no study has yet been published on the non-use value of surfing. Such research would include the existence value people hold from simply knowing that surfing resources are being protected (even if they don't use them directly), the option value of preserving a surf location for future use, or the bequest value of being able to pass surfing to resources down to future generation.
>
> (Scorse and Hodges 2017: 138)

The importance of a contingent value methodology is explored, which asked survey respondents to respond to hypothetical future situations. This is in line with a growing body of work on the nature of scenarios in achieving sustainability, especially in response to perceived risk (Renn 2008; Hofmeester *et al.* 2012). The authors highlight the travel cost method as the most common type of non-market value and that this has been used as a form of surfonomics. Drawing on the discussion in the introduction, this suggests a mechanism that may be representative of a reflexive modernity as it is a departure from the modernistic, ecological modernity interpretation of how value is calculated within society. This also sits within a broader literature that explores ecological or sustainability economics (Soderbaum 2008; Brown *et al.* 2017). There is also a

growing literature and debate on the role of valuation of nature, with a particular reference to natural capital and the calculation of ecosystem services.

### Reconceptualising Sustainable Surf spaces

This section of *Sustainable Surfing* presents chapters that in some form explore the reconceptualisation of surfing spaces. Lindsay Usher explores the relationship between localism and sustainability, which provides a very important outline of sustainability that emphasises ambiguity and the contextual nature of the concept. Usher explores the relationship between extreme to mild forms of localism which encompasses multiple issues from surf rage to place and attachment. However, Usher points out that 'localism can also make a positive contribution to the environmental sustainability of surfing' (Usher 2017: 153). Usher continues to build a discussion that focuses on the space of the waves in the context of sustainability:

> While localism may challenge the economic sustainability of surfing, sustaining the local surf culture and local surfing space are important for surf communities. Positive forms of localism should outshine this phenomena, which is known as the dark side of surfing. By encouraging positive manifestations of localism and discouraging the negative ones, surfers can work towards a more sustainable form of surfing.
>
> (Usher 2017: 162)

Mark Orams extends the discussion presented by Usher and explores the rise of surfing and overcrowding, which can lead to localism introducing the idea of Spot X, where locations are not disclosed. Orams provides an overview of a number of tourism and development models, pointing out in summary that: 'The irony of the focus on exploring and discovering new surfing destinations is that in doing so these explorers can unintentionally become the genesis of the very experience and outcome they detest and are seeking to escape' (Orams 2017: 169).

Orams introduces the notion of wilderness, where there is an overriding need to protect this space in the face of overwhelming overpopulation and the increased use of the surfing space. Jon Anderson (2017) explores the place of the tube and the practice of surf travel; here the author encourages the reader to seriously reflect on what global surf culture actually means. The tension that exists in this narrative is whether surfing is an internally pleasurable event or whether this must be contextualised as a ritual with external consequences. Anderson emphasises the feeling of surfing the sublime, the flow and the stoke. But with stoke comes the expansion of a multibillion-dollar industry and the externalities it produces. 'It is questionable whether the external consequences of these identity practices are reflected on in-depth within the culture and it is with this problematic that the language and practice of sustainability must engage' (Anderson 2017: 178).

Anderson asks two very pertinent questions. First, what does sustainability have to do with a surfing utopia? And second, why would surfing culture be willing to engage with this unwieldy concept more than another group? These questions are fundamental to the exploration of surfing and sustainability. Anderson argues that the individualistic instinct within surfing is not necessarily at odds with sustainability. 'sustainability is increasingly framed in terms of the individual and the isolated citizen is now often seen as a key contributor to the environmental crisis and any future' (Anderson 2017: 192). Furthermore:

> if environmental destruction, global warming and sea level rise were clearly understood as direct threats to the existence of certain breaks and waves, then becoming part of a movement that adopts more sustainable practices may make sense to a hedonistic surfer.
>
> (Anderson 2017: 193)

To articulate this, Anderson introduces the notion of coyote politics of pragmatism, which, he argues, is a pragmatic approach that facilitates the integration of sustainability into surfing.

These observations resonate strongly with multiple authors in *Sustainable Surfing*, from discussions on activism and policy debates through to localism. Moreover, these debates on the nature of the individual are also a central theme within Beck's understanding of late modern structures. I have previously suggested that 'the process of individualisation as Beck understands them can inform sustainable development discourse by understanding how people compose their own identities and biographies in the face of increased globalised knowledge' (Borne 2010: 276). What Beck tells us about the process of individualisation in a late modern world is that it occurs through the phases of liberation, detachment and reintegration. In this sense individualisation does not mean 'atomisation, isolation, loneliness, the end of all kinds of society of unconnectedness' (Beck 1994: 13). These observations then complement and support Anderson's comments by reformulating the notion of individualisation so that 'surfers may be able to extend their commitment to the transience of stoke, re-orientating their liquid lives' (Anderson 2017: 198).

Culture, meaning and sustainability hold strong synergies and continue to form a powerful component of the relationship between sustainability and surfing, and this extends to a critique of surfing history as a single narrative. Neil Lazarow and Rebecca Olive contribute 'to the growing number of voices critiquing established understandings of surf history and hierarchies as well as the powerful role traditional media and industry have in identifying surfing culture identity' (Lazarow and Olive 2017: 204). This echoes strongly with previous observations in this book on historical narratives in a postmodern era. The authors explore the notion of attachment to place and the role that this plays in creating action in a particular locale, highlighting the importance of personal relevance in these discussions. Epistemologically, the research presented draws

on feminist cultural studies, which explores multiple themes through the lens of embodied subjectivities. As discussed in Chapter 2, this connects with the underlying epistemological and methodological approach of analytical auto-ethnography. Directly relating this approach to sustainability, the authors indicate that sustainability should be understood 'in more holistic terms, as relating to surf culture, localism, relationships (to place and people) and coastal/surf-break management' (Lazarow and Olive 2017: 214). Indeed, in line with Martin and O'Brien (2017), the authors argue that 'the social and cultural world is intimately connected with the natural world and must be considered a Surfing System' (Lazarow and Olive 2017: 214).

In the final chapter in the book, Jess Ponting (2017) moves the relationship between surfing and sustainability in new directions by exploring the potential impact from the increasing prevalence of artificial surfing spaces. This is an increasingly relevant debate for surfing and sustainability on multiple levels, and this will be revisited in more detail in Chapter 11. Ponting provides a narrative of the historical evolution of surfparks before exploring the broader political and social landscapes within which they sit. The theory of 'Nirvanification' is applied to these emerging surfing zones. Through this lens, surf pools are described as enclavic spaces. 'Under the guise of freedom and escape, these kinds of spaces are subject to intense social control, leaving little room for local understandings of space' (Ponting 2017: 226). Pertinent for this book, these elements are balanced with a need to reduce risk perception of those fearful of the ocean. This creates an additional dimension to the relationship with the wave itself and what this means for surfing's connection to nature through the foundational oceanic experience. Drawing on the introductory observations relating to stoke and affect, this takes the discussion into a new realm of artificiality and complicates the relationship with the body and perception and behaviours towards the environment.

## Conclusion

This chapter has progressively built up a picture of the state of play with regard to the academic field of surfing and sustainability. It began with a broad overview of the research areas. Here it was suggested that all the diverse categories of surfing research in some way or another could be applied to discussions on sustainability and provide a reinforcing element for the exploration of the relationship between surfing and sustainability. Specific literatures were then highlighted in more detail that coalesced the relationship between surfing and sustainability, especially in relation to risk and modernity. The final section explored the contributions of *Sustainable Surfing*. This text is also highlighted not just as a detached literature but also as part of the ongoing ethnographic exploration that is embedded in the broader research process that is at the core of this volume. While by no means comprehensive, this chapter has now laid a strong foundation in which to explore the relationship between the theoretical propositions and the empirical work that follows.

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