

Weathered

Cultures of Climate

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1

What is Climate?

Introduction

This needs saying right from the start: climate is hard to place and even its existence is questionable. It seems to be everywhere (Can you escape from climate? Is anywhere on Earth climate-less?) and yet it is nowhere (Can you point to climate or take me to see it?). People seem to know intuitively what climate is and yet they struggle to articulate an adequate definition of it. And yet if climates *didn't* exist they would have to be invented; in fact, maybe they are invented. The value of the idea of something *like* 'climate' is evidenced by the wide metaphorical usage of it in everyday speech, referencing different intangible realities. Thus, political, intellectual, moral and economic climates are readily invoked. Inventing ideas is of course what people have done throughout history and what they continue to do across diverse cultures. And the idea of climate is nearly as old as recorded human history and as ubiquitous as, well, the weather. Climate appears to be a necessary invention if people are to make sense of the world in which they live.

So what exactly *is* climate? Is it merely an idea and, if so, what sort of idea? We might say that climatologists are able to conjure climates into statistical existence through averaging meteorological measurements made repeatedly at the same place day after day. Climates therefore exist abstractly as numbers. We might also recognise that Earth system scientists are able to simulate climates into virtual existence inside their computers, reproducing *in silico* the workings of a physically connected global Earth system and generating terrabytes of 'climate data'. Climates therefore also exist virtually as numerical models. And then geographers are able to take you to different physical places on Earth and show you the effects of different climates on landscapes (the Sahara or the tundra), on ecosystems (alpine or tropical) or on the design of buildings which humans inhabit (Swiss chalets or Balinese houses).

But even though we live *in* climates I cannot *show* you climate. I can place you in the middle of a hurricane and we can shiver together in a blizzard or be awe-struck by observing a tornado. We might admire the beauty of a tranquil sunset or feel the reverberations of thunder and tremble in awe. But hurricanes,

blizzards and thunderstorms are merely transient weather events, the outworking of a restless and constantly changing atmosphere. Climate is something else, hinting at a physical reality that is both more stable and durable than the weather. Unlike the weather, climate is therefore an idea of the human mind.

In this opening chapter I explore the idea of climate and introduce the scope of the chapters that follow. I propose that climate best be understood as an idea which mediates the sensory experience of ephemeral weather and the cultural ways of living which humans have developed to accommodate this experience. The idea of climate connects material and imaginative worlds in ways that create order and offer stability to human existence. People could not live without their climate.

Definitions of Climate

The operational scientific definition of climate usually starts with something like the official wording used by the World Meteorological Organisation (WMO): climate is ‘... a statistical description in terms of the mean and variability of relevant quantities of certain variables (such as temperature, precipitation or wind) over a period of time ranging from months to thousands or millions of years’ (WMO, n.d.). This description conventionally relies on 30 years of weather data. Climate might also be understood in a more general scientific sense as a description of the state and dynamics of the physical planetary system, which consists of ‘five major components: the atmosphere, the hydrosphere, the cryosphere, the lithosphere and the biosphere, and the [evolving] interactions between them’ (IPCC, 2013: 1451). This would be the way in which climate modellers would seek to understand and simulate climate in their computers.

Such definitions do not do justice to the deep material and symbolic interactions which occur between weather and cultures in places; interactions which I argue in this book are central to the idea of climate. They too easily maintain a false separation between a physical world (to be understood through scientific inquiry) and an imaginative one (to be understood through meaningful narratives or human rituals). Such a distinction maps easily onto the nature–culture dualism which has engrained itself in much western thought and practice, but which has been subject to extensive scholarly deconstruction over recent decades (e.g. Latour, 1993; Plumwood, 1993; Castree, 2013) (see **Box 1.1**).

Box 1.1: Climate and *Mejatoto*

The western separation of nature from culture is far from ubiquitous in today’s world. This has significance when seeking to understand how the idea of climate works in different cultures. Anthropologist Peter Rudiak-Gould’s work

in the Marshall Islands of the western Pacific helps here. In Marshallese, the closest equivalent to the English word climate is *mejatoto*. Yet *mejatoto* means more than just ‘weather’, ‘air’ or ‘climate’. It refers to a much wider range of attributes of the dwelt-in environment, people’s physical as well as their cultural surroundings. When asked by Rudiak-Gould whether the *mejatoto* had changed, Marshallese interviewees replied, “‘Yes. People are not like they were in the past. The culture has changed’”. “‘Yes. People are lazy now’”. “‘Yes. The *mejatoto* is bad now – people do not cooperate with their families like they used to’”. “‘Yes. Life has changed. They do not take care of each other like they used to’” (Rudiak-Gould, 2012: 49). When Marshall Islanders talk about their ‘climate’, they are talking about the seamless physical and social surroundings in which they live and through which their lives make sense. *Mejatoto* refers to the matrix of material and cultural relationships which bring order and meaning to their lives. A change in the *mejatoto* – *oktak in mejatoto* – is therefore an unsettling of all such relationships. As Rudiak-Gould observes, ‘*Mejatoto* is not polysemous [possessing multiple meanings] per se – it only appears that way to those from a cultural background that separates nature and culture’ (2012: 50).

Experiences of Weather

Contrary to such a dualist position, this book proposes a different way of approaching the idea of climate which requires thinking more directly about the weather and what it means to people. A standard dictionary definition of weather would be ‘... a description of the state of the atmosphere with respect to wind, temperature, cloudiness, moisture, pressure and so on’. It is such instantaneous meteorological conditions which, measured scientifically and then averaged over a period of time, generate the conventional statistical definition of climate offered above. It is a definition that dates back no more than two centuries and was only made possible by the invention of meteorological instruments in the seventeenth century.

But climate is not weather. Weather has an immediacy and evanescence that climate does not have. Weather is in flux; it is always both passing away and being renewed. Weather captures the instantaneous atmospheric conditions in which sentient creatures live, sense, imagine and build. Weather can be seen, heard and felt, as expressed in this passage from the Japanese philosopher Tetsuro Watsuri,

A cold wind may be experienced as a mountain blast or the cold dry wind that sweeps through Tokyo at the end of winter. The spring breeze may be one which blows off cherry blossoms or which caresses the waves... As we find our gladdened or pained selves in a wind that scatters the cherry blossoms, so do we apprehend our wilting selves in the very heat of summer that scorches down on plants and trees in a spell of dry weather. (Watsuri, 1988[1935]: 5)

It is this sensory experience of weather, and its material and emotional effects, that conditions a diverse array of cultural responses to human dwelling in the atmosphere; for example, celebratory rituals, material technologies, cultural memories and social practices. Clothes are designed to withstand cold and buildings to withstand wind; the coming of the cherry blossom and the onset of the monsoon are celebrated; weather prophets are designated to forecast the future state of the atmosphere. These cultural artefacts, moods and practices, inspired by diverse experiences of weather – some benign, some threatening – give shape and meaning to human lives. They are what Eliza de Vet (2013; 2014) calls ‘weather ways’: the variations that occur between repeated practices as individuals and communities adjust culturally to the weather. People live with their weather culturally; indeed, there is no way to live with weather other than culturally.

The Idea of Climate

Beyond the concepts and definitions offered by the WMO and climate scientists, I suggest climate is better understood as an idea which mediates between the human experience of ephemeral weather and the cultural ways of living which are animated by this experience. The idea of climate introduces a sense of stability or normality into what otherwise would be too chaotic and disturbing an experience of unruly and unpredictable weather. The weather humans experience often fails to meet their expectations. But the fact that people do *have* expectations is due to the idea of climate, as geographer and climatologist Kenneth Hare recognised years ago: ‘Climate is the ordinary man’s [*sic*] expectation of weather ... there is a limit to the indignities that the weather can put upon him, and he can predict what clothes he will need for each month of the year’ (Hare, 1966: 99–100). Holding on to climate as a normalising idea offers humans a certain sense of security; it allows them to ‘put weather in its place’ so to speak (see **Box 1.2**). Or as historian of science Lorraine Daston explains in her essay exploring the boundaries of nature, ‘... without well-founded expectations, the world of causes and promises falls apart’ (Daston, 2010: 32).

Box 1.2: English Weather-Talk

In her best-selling book from 2004, *Watching the English: the Hidden Rules of English Behaviour*, anthropologist Kate Fox devoted a whole chapter to the idea of weather-talk. Drawing upon Dr Johnson’s famous aphorism from the eighteenth century that ‘When two Englishmen meet, their first talk is of the weather’, Fox helpfully explains the nature of such weather talk. These conversation-starters are often expressed as rhetorical questions: ‘Ooh, isn’t it cold today?’ or ‘Isn’t it a nice day?’ English weather-talk is

therefore a ritualistic form of social interaction which helps overcome reticence or unfamiliarity. But the shared idea of climate is the unspoken context which allows this weather-talk to operate as a communicative form of social grooming. Most such pleasantries refer to the shared expectation of what the weather *should be* like today: 'It's mild for February, isn't it?' or 'Yesterday's storm was so unseasonable'. Climate is the reassuring idea that there is regularity and a normality to which ultimately the weather will conform, even if today it is not doing so. Such weather-talk is an expression of solidarity in our shared sense of a secure climate. So although the English might not mention climate *explicitly* in their weather-talk, one can see how the idea of an expected English climate is the shared tacit framework which brings intelligibility, order and meaning into their social interactions.

If, as phenomenologist Julien Knebusch explains, '... climate refers to a cultural relationship established progressively between human beings and weather' (Knebusch, 2008: 246), the idea of climate should be understood as performing important psychological and cultural functions. Climate offers a way of navigating between the human experience of a constantly changing atmosphere, with its attendant insecurities, and the need to live with a promise of stability and regularity. This is what Nico Stehr refers to as 'trust in climate' (Stehr, 1997). Climate offers an ordered container, a linguistic, numerical or sensory repertoire, through which the unsettling arbitrariness of the restless weather is interpreted and tamed. This container creates Daston's necessary orderliness. The idea of climate helps stop the world falling apart. This is one of the reasons why the idea of climate *changing* is so unsettling: it undermines the 'trust' people place in climate as a cultural symbol of large-scale orderliness, an invention which eases their anxieties about the weather. Novelist Margaret Atwood captures this unease when discussing the idea of a changing climate: 'I think calling it climate change is rather limiting. I would rather call it the *everything change*. Everything is changing in ways that we cannot yet fully understand or predict' (quoted in Romm, 2015).

As mentioned earlier, climate *may* be defined according to the aggregated statistics of weather in places (the WMO) or as a scientific description of an interacting physical system (the IPCC). These definitions have value in allowing scientists to study the physicality of weather and climate. But if climate is understood as no more than this, then something crucial is being missed; namely, how the idea of climate emerges from the innumerable ways in which weather and cultures are mutually shaping and changing each other. It is these interactions that I suggest are captured by the idea of climate, an idea which therefore functions to stabilise cultural relationships between people and their weather. Beyond scientific analysis, the full richness of the idea climate can only be acquired imaginatively, as an idea of what the weather of a place 'should be' at a certain time of year and held in social or personal memory and given diverse cultural expression.

But however defined, whether scientifically or culturally, it is the human sense of climate that establishes certain expectations about the atmosphere's performance and how we respond to it. The idea of climate cultivates the possibility of a stable psychological life and of meaningful human action in the world. Put simply, the idea of climate allows humans to live culturally with their weather. It is in this sense then that I offer the idea of cultures as being 'weathered'. Furthermore, I argue that geographical and historical investigations of this weathering process yield deeper and richer understandings of the idea of climate than can be issued by natural scientists. It is why the account of climate offered in *Weathered* might be read as a cultural geography of climate (see Box 1.3).

Box 1.3: Culture and Cultural Geography

As with climate, culture is a rich word with multiple and complex meanings. At one level one might think of culture simply as 'what humans do', for example, an aggregation of the artefacts, ideas, practices, symbols and emotions that people create, enjoy and use; what cultural geographer Jon Anderson (2015) refers to as 'traces'. More formally, the anthropologist Clifford Geertz defined culture as '... an historically transmitted pattern of meaning embodied in symbols, a system of inherited conceptions expressed in symbolic forms by means of which men [sic] communicate, perpetuate and develop their knowledge about and attitudes towards life' (Geertz, 1973: 89). Culture, then, just like climate, is hard to see and harder to measure. As Tim Ingold says, 'We can never expect to encounter culture "on the ground"' (Ingold, 1994: 330), just as no-one has ever 'seen' climate. Instead, what we find are '... people whose lives take them on a journey through space and time in environments which seem to them to be full of significance, who use both words and material artefacts to get things done and to communicate with others, and who, in their talk, endlessly spin metaphors so as to weave labyrinthine and ever-expanding networks of symbolic equivalence' (Ingold, 1994: 330). It is therefore more accurate to say that people 'live culturally' rather than that they 'live in cultures'. Cultural geography, then, is the sub-discipline of geography which explores how cultural activities vary from place to place; indeed, it recognises how the very idea of 'place' is constituted through cultural practices. In *Weathered: Cultures of Climate* I am making the claim that the idea of climate exists at the intersection of culture, weather and place.

The Structure of the Book

The book is organised into three sections. In Part 1, 'Knowledges of Climate', I explore the range of knowledges which humans have developed both historically and geographically about their climates. These cultural knowledges

embrace different theories of why the physical properties of climates seem to change over time. In Part 2, 'The Powers of Climate', I illustrate how climates and cultures interact in specific places to shape patterns of life and how the idea of climate engages with different social practices and imaginative worlds. For example, climate enters into cultural accounts of blame and fear in many ways and finds representation in many cultural forms. In Part 3, 'The Futures of Climate', I consider the ways in which the futures of climate and humanity are inescapably bound together. On the one hand, different cultures construct a variety of trustworthy knowledges of how climates may change in the future. On the other hand, such knowledge of the future already changes the ways in which humans live in the present, and the idea of climate, I argue, continues to evolve.

The chapters in each of these respective sections are briefly summarised below.

Part 1: Knowledges of Climate

Cultures in different historical eras have engaged with the idea of climate in a surprising variety of ways (**Chapter 2: 'Historicising Climate'**). Climates have been constructed from a wide range of imaginative and material evidence. These constructed climates have then been brought into public life to discipline personal, social and political behaviour in contrasting ways to diverse ends. The idea of climate has been bound up with, *inter alia*, imperial power, chauvinism, identity, nationhood, diet, colonialism, trade, health and morality. Precursors and parallels to contemporary thinking about climate can be found in earlier cultures' interpretations of their climate, while novelties and peculiarities can also be found which both challenge and disturb. These cultural histories of climate demonstrate that changes in the conceptual and rhetorical meanings of climate can and do exert a significant influence on public life.

What is known about the climates in which people dwell is always hard-earned, whether it be first-hand personal knowledge of the weather, second-hand knowledge of local climate that is held in cultural memory or scientific knowledge of changing climates acquired third-hand from trusted sources (**Chapter 3: 'Knowing Climate'**). What people know about their climate is also influenced by the cultures of meaning into which they are born and by the cultural practices of knowledge-making through which they become disciplined as citizens, practitioners, artisans or scholars. All knowledge of climate is cultural; it cannot exist separately from the cultures in which it is made or through which it is expressed. But which knowledge claims people deem to be trustworthy and which are held to carry public authority is not just a cultural question; it is also a deeply political one.

Human anxieties about a disorderly climate are long-standing. Climate is an idea which performs important functions in stabilising relationships between the experience of weather and cultural life. So when physical climates appear to change, the search for explanation becomes pressing (**Chapter 4 'Changing**

Climates'). Three categories of explanations for such changes can be discerned: the supernatural, the natural and the human. These explanations co-exist in complex ways within and across different cultures and there is an ebb and flow to their respective cultural authorities. But it is unusual for humans to think that climates change for either natural or supernatural reasons *alone*. Far more common, and indeed perhaps more necessary, is to believe that the performance of climate is tied to the behaviours of morally-accountable human actors. For much of the past, and in most places, climate and humans have been understood to move together, their agency and fate conjoined through the mediating roles of natural processes and supernatural beings.

Part 2: The Powers of Climate

The idea of climate can fruitfully be understood as emerging from how people live materially and imaginatively with weather in particular places (**Chapter 5: 'Living with Climate'**). Climate becomes a rich ensemble of atmospheric processes, material technologies, memories, landscapes, dress codes, social practices, symbolic rituals, emotions and identities. Taken collectively these climatic behaviours may be thought of as 'weather-ways'. Patterns of weather are of course diverse around the world, and many of these patterns are now changing in significant ways. Yet how humans make sense of their weather and its changes cannot be separated from how history, the body and the imagination are expressed in specific places. Wider reflections taking place in the disciplines of geography, psychology and sociology around notions of place, identity, perception and social practice help to understand these sense-making cultural processes.

Climate has frequently been bound up with narratives of blame (**Chapter 6: 'Blaming Climate'**). There is a long history of elevating climate as the (primary) determinant of human physiology and psychology, just as there is one in which climate is offered as the primary determinant of physical landscapes, biological evolution and economic prowess. Wars, economic performance, street violence, political despots, famine, property prices, suicides, the age of menstruation – and many more phenomena – have all been 'explained' by climate. Culturally credible and persuasive accounts of blame and culpability fulfil an important human social and psychological need. Such collective sense-making of a complex and chaotic world enables social institutions to function and societies to be governed.

Ecological disorder and fear of the unknown future are enduring sources of human anxiety. In **Chapter 7: 'Fearing Climate'** I explore what happens to human emotions when either the experience of past climatic disorder or the claims of a future descent into climatic chaos feeds the imagination in powerful ways. Although fearful interpretations of climatic behaviour are common throughout human history, these fears are always mediated culturally. Climatic fears are bound up in wider narratives of apocalypse, risk society, emergencies and psychological (in)security. Climate chaos therefore exists in the imagination

as much as it can be discovered through scientific instrumentation and calculation. And however contemporary climatic fears have emerged, they will in the end be dissipated, reconfigured or transformed as a function of cultural change.

Climate is an imaginatively fruitful idea and so it is inevitable that it will be represented in different ways (**Chapter 8: 'Representing Climate'**). But representing the idea of climate is a challenge both for scientific practice and for the arts. Climate and its changes are beyond mere mimetic representation, whether by computer simulation or photography. No single timeless truth about climate and what it means for people waits to be revealed through science or through art. Despite frequent exhortations to the contrary, climate science cannot 'demand' any particular course of action of people. Neither can art. It is not didactic, it cannot instruct people in sustainable, just or alternative living. Since there can be no unmediated access to climate, all representations of climate are in the end political acts; that is, they are engaged in constructing different and selective climatic realities: material, ideological, imaginative, normative. But good climate art will engage human faculties to provoke reflection on the profound questions prompted by foretold changes in climate: the good life to be admired, the future to be aspired to and the responsibilities they have to others, both human and non-human.

Part 3: The Futures of Climate

There is a long cultural history of claims-making about the future, scientific forecasting being only the latest in the tradition of prophetic knowledge (**Chapter 9: 'Predicting Climate'**). As with all predictive knowledge, climatic predictions are culturally conditioned and how such predictions are used varies from culture to culture. Predictions of future climate, whilst often relating in some way to scientific knowledge claims, are always mediated by a wider variety of cultural norms, computational artefacts and communicative practices. Numerical computer modelling of a climate is but one means of predicting its future course, but one that has taken centre stage in the contemporary world. Yet model predictions, and those who communicate them – standing in a long line of prophetic voices – face multiple challenges: how to be credible, how to carry authority, how to be useful. Navigating between these demands is not easy. Predictions will nearly always turn out to be wrong; the future has its own unfolding logic of action beyond human reach. But cautionary tales about the future are absorbed, pondered and can usefully be learned from.

People have long sought ways to make their climate more agreeable, whether by migrating in search of more favourable ones or by adapting to climate's vicissitudes. The idea of deliberately redesigning climate is more recent and can be traced to modernist European projects of improvement and colonisation (**Chapter 10: 'Redesigning Climate'**). Technological entrepreneurs of the nineteenth and twentieth centuries aspired to 'control the weather'. More recently the idea of global climate engineering has emerged. With global

temperature as the dominant metric for revealing climate-change, it has become the control variable upon which human designs might be wrought. Climate engineers today are proposing and researching technologies that would 'manage' global temperature, much as the householder seeks to manage the comfort of her home or car by turning the thermostat. But climate engineering raises profound philosophical and political questions. What would it be like for people to live in an enhanced or restored climate, knowing that it was made and maintained by human hands? And, politically, who gets to decide and govern the climates thus designed: those who have most to gain, those who have most to lose or those who simply have the power and means to enact the technology?

Climate has long been a political object around which different modes of governing, regulating and ordering society vie for recognition and endorsement (**Chapter 11: 'Governing the Climate'**). But when climate is to be governed, what precisely is it that is being steered? The cyclones, heatwaves, ice-storms and downpours that begin to constitute the physical and imaginative contours of climate are not directly subject to human laws, policies or technologies. Governing climate therefore always becomes a project about governing and controlling things other than the weather: physical environments, social practices, material technologies, investment flows. Governing local or colonial climates has usually been an exercise in governing local communities or colonial societies. And the rise of *global* climate governance in recent decades has further extended the range of practices, technologies and institutions which can come under the reach of climate governance. Governing global climate becomes an exercise in governing global society, but where the power to do so exists in no central or identifiable locus.

In the last chapter of the book (**Chapter 12: 'Reading Future Climates'**), I speculate about the future of climate as an idea. I offer three possibilities. First, is the idea of climate re-secured within desirable and 'safe' limits. This ambition seeks to shore-up the historical function of climate by re-establishing a degree of orderliness in the world. A second possibility embraces a future of improvised climates rather than of re-secured or stabilised ones. Improvisation recognises that physical climates will always escape human management. A third possibility is more radical and calls into question the imaginative function of climate upon which this book is premised. It suggests that in the new epoch of the Anthropocene people may have to learn to live without the idea of climate, at least without climate as an idea that brings order and stability to relationships between weather and culture. The 'new normal' of climate is simply that there can be no normal. And this is unsettling.

Chapter Summary

The idea of climate is as old as the human imagination and, as an imaginative way of bringing order and stability to human life, the idea remains pervasive

across today's diverse cultures. Climate *may* be defined according to the aggregated statistics of weather in places or as a scientific description of an interacting physical system. But climate may also be apprehended more intuitively, as a tacit idea held in the mind or in cultural memory of what the weather of a place 'should be' at a certain time of year. However it is defined, formally or tacitly, it is people's sense of climate that establishes certain expectations about the atmosphere's performance. The weather experienced often fails to meet people's expectations, but the fact that they *have* expectations is due to the idea of climate. As a normalising idea climate therefore offers people a certain sense of security; it allows them to 'put weather in its place'. Climate introduces a sense of stability and normality into what otherwise would be too chaotic and disturbing an experience of unruly and unpredictable weather. Climate cultivates the possibility of a stable psychological life and of purposeful action in the world.

Put simply, the idea of climate allows people to live culturally with their weather. Climate is weather which has been cultured, interpreted and acted on by the imagination, through story-telling and using material technologies. And as I now proceed to explain in the rest of the book, both people and their cultures are in continual processes of being weathered.

Further Reading

- Behringer, W. (2010) *A Cultural History of Climate*. Cambridge: Polity Press.
- Bristow, T. and Ford, T.H. (eds) (2016) *A Cultural History of Climate Change*. Abingdon: Routledge.
- Leduc, T.B. (2010) *Climate, Culture, Change: Inuit and Western Dialogues with a Warming North*. Ottawa: University of Ottawa Press.

