Introduction

Scaling Down in Order to Cool Down

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Perhaps the publication of Naomi Klein's influential *This Changes Everything* in 2014 marked a watershed in the sense that climate change was by then, as the author had come to realize, not just another human challenge to add to an already lengthy catalogue of ailments and injustices but *the* main problem facing humanity. Climate change has become the single most important lens through which phenomena such as inequality, displacement, indigenous issues, migration, corporate power, new political movements, environmental degradation, and racist exclusion must be viewed in order to obtain a full picture of any of them. This holds true whether the investigation is fueled by curiosity or activist concerns—or, as the case may often be, both. Extreme weather is now in the news every day, ranging from the massive 2019–20 forest fires in Australia to the European heatwaves in the same years and the simultaneous hailstorm in Guadalajara, Mexico, which deposited a meter-and-a-half layer of wet snow in the middle of summer in a city otherwise known for its dry and warm climate. In January 2020, a mild wind blew through Oslo, where temperatures reached eight degrees centigrade above zero, a far cry from the normal minus five degrees and at least half a meter of snow. Although the coronavirus pandemic led to a sudden slowing down of anthropogenic climate change, with air traffic plummeting by more than 90 percent in April 2020 compared to April 2019, it is in itself unlikely to have long-term effects on the underlying dynamics of climate change.

Global climate change seems abstract, difficult to understand, relate to, and deal with politically. It is well documented, yet it lends itself easily to conspiracy theories and alternative interpretations. It is a product of

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modernity, which seriously questions a central tenet in the very modern project that has produced it, with growth and acceleration as key values. Notably, climate change leads to a profound questioning of the belief in a particular kind of progress based on the partnership between science and technology.[1] It also indicates the limitations of nationalism as a political project for the twenty-first century and reveals the starkness of global inequality *and* the need for humanity to act as one. The causes of climate change are also the causes of the unprecedented economic growth, comfortable middle-class living for a growing minority of humanity, and, in some places, the successful struggle against abject poverty. Accordingly, contemporary global civilization is caught in a double bind (Bateson et al. 1956) at two systemic levels: The individual benefitting from the modernity of fossil fuels and capitalist growth relies on a world economy that simultaneously provides them with comfortable lives *and* undermines the very conditions for those lives. The global economic system relies on accelerated growth (Eriksen 2016, 2018) of a kind that destroys its own foundations by using up nonrenewable resources and damaging the global ecology beyond repair.

It is difficult to imagine a more critical or prominent topic in the world today than climate change. Books on the topic range from popular science to the political, from the journalistic to the academic. Atlases and handbooks showing the scope of the issue have appeared. Research centers have been established, usually with an interdisciplinary element and often with a mixed basic and applied research mission. Major journals have been established, both specific to particular disciplines and those that are more wide-ranging. Important transnational institutions such as the United Nations have produced germane and overarching examinations, appraisals, and increasingly insistent policy recommendations. New terms, such as *the Anthropocene*—tailored to describe a new era for human life on Earth—have spread quickly (Steffen, Crutzen, and McNeill 2007), while the more recent concept *the Capitalocene* suggests that the overuse of resources, the relentless search for profitability, the translation of nature into quantifiable "resources," and the commitment to endless growth are not characteristics of humanity as such but of a particular phase in our history.

Attempts to describe and understand climate change generally fall into one or several of three categories: (1) descriptions of comprehensive worldwide happenings, such as sea level rise, temperature rise, desertification, and increasing storms; (2) warnings of dire consequences if measures are not taken; and (3) discussions of implications for development, industry, and socioeconomic policy. Virtually every scientific discipline at every major academic institution seems to have developed a section ded-

icated to the topic, and many institutions and professional organizations (such as the American Anthropological Association) have established commission task forces aiming to produce disciplinary statements with details, charts, and analytical breakdowns on the subject.

Even if massive human impact on climate is a recent phenomenon, the awareness that climate has an impact on human life is not new. As Dove (2013) reminds us in his historical reader on the anthropology of climate change, one of the founders of medical science, Hippocrates (b. 460 BCE), wrote a treatise called *Airs, Waters, Places* that argued for a connection between the climate, the environment, and the human condition. Much later, during the Enlightenment, the social theorist Montesquieu (1689–1755) saw a close relationship between climate and social institutions, temperament and social life. Dismissed by later social theorists as simplistic environmental determinism, similar ideas have nevertheless never quite disappeared. What is new in the current age is the recognition of humanity's impact on climate and the potentially catastrophic consequences for life on the planet in the future. In this area, anthropologists are making important contributions to knowledge.

Perspectives from Social Theory

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In other words, the contemporary world of climate change and the Anthropocene, and that of global transformation in general, has not evaded the attention of academics, and this is also the case in the social sciences. In general social theory, Zygmunt Bauman (2000) and Ulrich Beck (2009) wrote important works about risk and unpredictability around the turn of the millennium, while Hartmut Rosa has devoted his research to social acceleration, with clear implications for climate (2016). The term Anthropocene was initially proposed by the atmospheric chemist Paul Crutzen (with Eugene Stoermer), who is also the coauthor of a much-cited article with his colleague Will Steffen and the historian John McNeill (Steffen, Crutzen, and McNeill 2007) on social aspects of climate change. Slightly earlier, the archaeologist Brian Fagan published several books about the significance of climate for human society (see Fagan 1999). Another archaeologist, Joseph Tainter, has produced important analyses of the causes of

civilizational collapse in the past (1988), a perspective subsequently popularized by Jared Diamond (2005). Tainter's work shows ways in which contemporary societies can learn from archaeological research when faced with mounting or simmering crises. In his comments on the present, which make comparisons with the collapse of the Roman and Maya empires, climate change nevertheless comes across as just one factor in accounting for the decline of complex societies. The decisive cause, as Tainter sees it, will consist in decreased marginal returns on investments in energy (EROI), owing to population growth and subsequent intensification of food production with decreasing returns, coupled with growth in bureaucratic, logistic, and transport costs. Presently, resource shortages, a direct result of anthropoid dominance of the planet, may be a more acute problem than climate change in his view.

Since the late eighteenth century, we have been able to exploit unprecedented amounts of energy, at first in the shape of abundant and easily accessible coal deposits, and subsequently through the extraction of oil and gas for the sake of economic growth and the improvement of the human condition (Mitchell 2011). The fossil fuel revolution enabled humanity to support a fast-growing global population—it has increased sevenfold since the beginning of the fossil fuel revolution. Yet the cost of taking out fossil fuels grows as the low-hanging fruit is being used up. At the same time, production relying on fossil fuels has an inevitable element of destruction (Hornborg 2019), in a dual sense, since we are simultaneously eating up capital that it has taken the planet millions of years to produce and undermining the conditions for our own civilization by altering the climate and ruining the environment on which we rely.

Interdisciplinary collaboration is necessary in order to understand the full implications of climate change. While climate scientists adopt a birds-eye perspective on the planet and archeologists move their gaze back in time, anthropologists enter deeply into local realities in order to understand perceptions of and responses to climate change. The last couple of decades have produced a fast growing corpus of anthropological knowledge about climate change, much of which performs a double task in that it improves our understanding of society and may also be relevant for policy and action.

The Unique Contribution of Anthropology

Through its insistence on the primacy of local realities, anthropology builds its theoretical insights in dialogue with the social and cultural worlds studied and engaged with by researchers, who have spent years

qualifying as specialist connoisseurs of the local knowledge and practices of the communities with which they work. In this, anthropology differs from other academic disciplines by developing theoretical insights, not exclusively through internal academic debates but by way of active engagement with local experiences and worldviews. The ethnographic method is not particularly expensive, but it is immensely time-consuming since the researcher has to get to know their collaborators personally rather than merely doing interviews (Shore and Trnka 2013). As a result, anthropologists tend to learn a lot about a few rather than a little about many, and herein lie both the strengths and the weaknesses of the ethnographic method. The strengths, when faced with systems of staggering scale such as the global climate system, have been demonstrated in a number of recent books, some taking on anthropogenic climate change explicitly (e.g., Crate and Nuttall [2009] 2016), others emphasizing the lessons that can be learned from indigenous people and their engagement with the environment (e.g., Hendry 2014). A collection of essays by Claude Lévi-Strauss (1983) is entitled *Le regard éloigné*, but what characterizes most anthropological work in the field is rather the view from below and from the inside. This gaze and methodology inevitably produces diversity rather than uniformity, displaying locally tailored solutions to the problems facing actual human beings rather than standardized options of the one-size-fits-all kind.

The plurality of perspectives presented through anthropological research effectively falsifies the TINA (There Is No Alternative) doctrine popularized by Margaret Thatcher in the 1980s by showing that, in fact, TAMA (There Are Many Alternatives). Yet it could be argued that the tendency toward myopia and provincialism haunts anthropological research for precisely the same reasons that it shines in its ability to produce a dazzling range of distinctive local knowledges. Faced with large-scale phenomena such as global capitalism and human ecological footprints traceable on a global canvas, anthropologists need help to fill in the blanks, lift their gaze from their local community, and challenge their own prejudices and assumptions. This is why interdisciplinarity must be part and parcel of an anthropology of climate change.

In a short position paper written for non-anthropologists, Jessica Barnes and coauthors (Barnes et al. 2013) list three kinds of knowledge that anthropology can contribute to the field: (1) ethnographic insight, (2) historical perspective, and (3) holistic view. These will be elaborated below.

Anthropologists are well positioned to make a difference and, perhaps, help mitigate effects, or even to propose deeper systemic change to combat climate change. A considerable, and growing, number of edited volumes on climate change by anthropologists have appeared since the turn

of the millennium. Interest in the area has grown very rapidly, and to this development we now turn.

The Growth of Climate Anthropology

Although the study of climate change is recent in anthropology (as it is elsewhere), it has important precursors in the history of the discipline, especially in environmental anthropology and the anthropology of energy.

While mainstream British and French social anthropology in the mid-twentieth century was mainly preoccupied by research on social organization, politics, and ritual, American cultural anthropology tended to emphasize the study of symbolic meaning. However, in the United States, there was also a tradition, going back to the nineteenth century, of studying material culture, technology, and ecological adaptation. After World War II, Julian Steward (1955) championed human ecology, while Leslie White ([1949] 2005) studied technology and energy use from a social evolutionist perspective. These approaches ceased to wield influence in the discipline by the early 1980s, and especially White was criticized for not paying enough attention to power and symbolic meaning. Yet the emphasis on energy and ecology remains relevant for the current anthropology of climate change.

A different approach to ecology is represented in Gregory Bateson's work, which remains highly influential (Bateson 1972). As early as 1970, he identified three root causes to what he already then spoke of as the ecological crisis. The first was technological progress, the second was population increase, and for the third he pointed to a set of entrenched Western cultural values and ideas that place humanity in an unhealthy relation to the environment (what he speaks of as a flawed epistemology based on Cartesian dualism and individualism). What Bateson criticized was the idea that humans should strive to control the environment, along with the strong focus on the individual, the belief in economic growth, the assumption that we live within an infinitely expanding frontier, and the conviction that technology will solve any problem facing us. What Bateson calls a healthy ecology requires ecological flexibility and slow change, "a single system of environment combined with high human civilization in which the flexibility of the civilization shall match that of the environment to create an ongoing complex system, open-ended for slow change of even basic (hard-programmed) characteristics" (Bateson 1972: 502).

Whereas Bateson identified a central contradiction of contemporary civilization early on, he did not address climate change explicitly. His ex-wife Margaret Mead may in fact have been the first anthropologist to do

so (Kellogg and Mead 1980), as she convened a conference about the atmosphere as early as 1975. Whereas climate change was not yet on the agenda—in fact, many scientists at the time believed that we were heading toward a new Ice Age rather than an overheated world—the conference took on smoke, smog, and other forms of atmospheric pollution as genuinely global challenges that needed to be dealt with politically.

By the 1990s, climate change (still spoken of as global warming) began to enter the political and research agenda more visibly. In anthropology, an early, important contribution was a four-volume work edited by Steve Rayner and Elizabeth Malone titled *Human Choice and Climate Change: An International Assessment* (1998), an interdisciplinary work with contributors from many countries. Another pioneering work was Ben Orlove's ethnoclimatological research in the Andes, which—among other things—showed how farmers used the influence of El Niño events on the visibility of the Pleiades to predict rainfall and temperature (Orlove et al. 2000). In the 1990s, the concern with climate change was nevertheless still marginal and peripheral in anthropology.

A decade later, this was about to change.

Coming from the anthropology of health, Hans Baer and Merrill Singer published *Global Warming and the Political Ecology of Health* (Baer and Singer 2009). The book investigates a particular aspect of climate change, namely its impact on water, nutrition, and the spread of disease. Unlike many other anthropological studies of climate change, this book strongly emphasizes that climate change affects different communities unequally owing to an economic system that produces inequality.

In the same year, Susan Crate and Mark Nuttall edited the widely cited and read *Anthropology and Climate Change* (Crate and Nuttall [2009] 2016), which was a pioneering, indeed groundbreaking, volume when it was published, with chapter authors working in different parts of the world. The main perspective in this book is interpretive, and the text explores local responses to, and perceptions of, climate change in a wide range of societies. It should nevertheless be mentioned that the societies that are the main contributors to climate change—the rich OECD countries, as well as China—are sparsely represented. This shortcoming is addressed in the second edition of the book (Crate and Nuttall [2009] 2016), as well as in the later edited volume *Cultures of Energy* (Strauss, Rupp, and Love 2013), but perhaps most consistently in Kari Norgaard's *Living in Denial* (Norgaard 2011). Based on fieldwork in a rural Norwegian community where erratic winters interfere with winter tourism, *Living in Denial* asks how it can be that people who are aware of, and experience the effects of, climate change continue to lead unsustainable lives.

A few years later, a very substantial anthropological literature dealing with different aspects of climate change had appeared, and professional interest in the field had skyrocketed. Whereas there was just a single panel at the Society for Applied Anthropology (SfAA) devoted to climate change in 2006, the number had increased to twenty a decade later. Crate and Nuttall sum up the growth and diversification of the field by stating that anthropologists today "are engaging [in] research that has a concern with resilience, vulnerability, adaptation, mitigation, anticipation, risk and uncertainty, consumption, gender, migration, and displacement. Anthropologists have developed significant work on the politics of climate change, inequality, health, carbon markets and carbon sequestration, and water and energy" (Crate and Nuttall [2009] 2016: 11).

Global Diversity

The body of knowledge that anthropologists have so far accumulated ranges from critical studies of the discourses and practices of carbon offsets (Dalsgaard 2013) to comparative studies of retreating glaciers (see Ben Orlove's website, https://glacierhub.org), in addition to a fast-growing number of ethnographies describing how communities deal with the local effects of climate change, in projects that look, in Kirsten Hastrup's evocative terms, at the drying lands, the rising seas, and the melting ice (Hastrup and Hastrup 2015). A political economy approach informed by anthropological reflexivity is provided, inter alia, in works by Harold Wilhite (2016) and Alf Hornborg (2019). Local responses to climate change are explored in Stensrud and Eriksen (2019), the relationship between health, capitalism, and climate has been analyzed by Hans Baer and Merrill Singer (2009), and the historical antecedents of current concerns with environmental change and climate are covered in Michael Dove's historical reader (Dove 2013). Anthropologists have also contributed some very significant ethnographic monographs on climate issues, ranging from Jessica Barnes's research on water in the Nile Delta (Barnes 2014) to Linda Connor's work on mining in Australia (Connor 2016).

Not all environmental anthropology has a focus on climate. Important research on topics such as deforestation, mining, waste, and toxins may be only tangentially related to climate. However, it is fair to say that the broader field of environmental anthropology is being renewed and reformulated because of the intensified attention to climate, as witnessed, for example, in the edited volume *The Angry Earth: Disasters in Anthropological Perspective* (Oliver-Smith and Hoffman 2000, 2020), where, in the second, revised, and updated edition of the book, nearly all contributors

mention the atmospheric changes that have begun to affect the sites of their prior studies. It also deserves mentioning that the most famous living anthropologist without an anthropology degree, Bruno Latour, shifted his attention years ago to the causes and politics of climate change (Latour 2017). It is everywhere, and it is now; it is comprehensive, it brims with methodological implications, it buzzes with theoretical possibilities, and indeed, the fact of anthropogenic climate change may be about to to redefine the very foundations of anthropological (and other) research, and it also raises the question of what it entails to be a human being within a new existential framework. Climate change, the immediate cause of the coining of the neologism Anthropocene, may retrospectively be seen as a major game changer in intellectual and political life in general, and also in anthropological research. It is no coincidence that the increased interest in multispecies fieldwork, and the rise to prominence of the Deleuzian term *assemblage* (which transcends the human/nonhuman and material/symbolic barriers), have shaped the work of many anthropologists in the present century.

As opposed to attempts to create top-down solutions through international agreements, some of which have a perceptible element of magical thinking (Rayner 2016), the anthropological view from below and within provides a number of useful insights. First, an awareness of variation is essential to all anthropological research. The clunky distinction between developing and developed countries, and indeed the very category of the country, does not always fit the territory. The Seychelles is not "a place" in the same sense as China is "a place." There is no reason to assume that actions that have been proved successful in Namibia would work in Nepal. The challenges faced by Greenlanders confronting melting ice differ from those faced by Bangladeshis, who are challenged with intensified flooding, salination of the soil, and mudslides, or from those encountered by Sahelian nomads, who witness their pastures turn to dust.

Second, any successful social change has to begin with an appreciation of local life-worlds and has to be developed not for but with the people affected. Neither of these principles, commonsensically true to any working anthropologist, are reflected in the abstract, large-scale worlds of international negotiators. In other words, a reasonable conclusion is that climate change policy must be scaled down and perhaps built from the bottom and not from the top.

Comparison is a third asset. One of anthropology's main methods for generating knowledge and opening new theoretical horizons, as well as for stimulating the political imagination, comparison generates new ideas about human worlds. For example, a comparative approach shows that it is not self-evident that land can be subject to personal ownership and that

"resource management" and "sustainability" are integrated in the taken-for-granted knowledge. It goes without saying, because it comes without saying, that in societies where "the economy" has not been disembedded from everyday life, making people accountable to their surroundings consists of ways that are unknown and perhaps unknowable to those who own and profit from property elsewhere.

The methodological and analytical holism on which anthropologists insist has often made their knowledge somewhat unwieldy and unmanageable for governments and development agencies, since it goes against the segmentation of worlds into separately manageable sectors that bureaucratic planning requires. Yet at this point in history, more holism may be precisely what is needed: in order to understand the refugee crisis in Syria, which began with the outbreak of civil war in 2011, the seven-year drought preceding the unrest needs to be taken into account; in order to explain the rise of ethnonationalism in Europe, the containerization of shipping and its role in catapulting Chinese exports to global omnipresence must be understood; and not least, the knowledge, usually contested, enabling people to navigate, interpret, and act upon the world must form an integral part of any project, whether academic or applied, concerning the human implications of climate change. Anthropology, its methods, and its knowledge are particularly well equipped to consider the local, to scale down, while pondering the weight of the global and its impacts on local worlds.

In spite of the thriving research and reporting activity in the field, this book is needed. By examining the real, practical assessments, solutions, and calls for concern that are happening on the minute, regional, parochial, and diverse levels of humans encountering a problem, it is an account from the half-forgotten backwaters of the contemporary, overheated world. It also presents chronicles from some of its centers. Like other anthropologists contributing to the field, we recognize the global dimension of climate change, but we also mean to show in what ways climate change is also always local and has to be understood as such, ecologically, socially, politically, culturally. While politicians until recently might write off concerns of urgency by calling for more research, it is by now abundantly clear that the natural science knowledge needed to act has been available for many years.

However, while we possess sufficient knowledge from the natural sciences, pointing to it, it is by no means evident that the human dimension of climate change is understood sufficiently well. A blunt question, interrogating the actual impact of the massive natural science knowledge now available, may be why so little is happening, since nearly all countries are signatories to a series of climate agreements beginning with the Kyoto

Protocol in 1997, which specifies the steps that need to be taken to mitigate the impact of changes that are already taking place. Later reports from the Intergovernmental Panel on Climate Change (IPCC) have further been increasingly insistent about the need to take action immediately. Yet, global emissions continue to rise and are nowhere near to reaching the targets agreed to in Kyoto and later affirmed. Indeed, emissions were, by 2013, more than 60 percent higher than in 1990 (Khokhar 2017).

To begin to explain this conundrum, we will now take a short excursus to Norway, which provides an interesting case not included in this book but one that the first author of this introduction knows well since he lives there.

The Cases of Norway and Portugal

The case of Norway is intriguing. On the one hand, the very concept of (ecological) sustainability was coined by an influential UN commission headed by the then Norwegian prime minister, Gro Harlem Brundtland, in 1987. Norway further markets itself as a clean and scenic tourist destination with vast areas of unspoiled nature. Indeed, nature as wilderness forms a central dimension of the collective Norwegian cultural self-understanding (Gullestad 1992).

On the other hand, through its massive exports of oil and gas, Norway may indirectly be responsible for as much as 3 percent of the global CO_2 emissions. At home, the country appears to have a better track record than many countries, in spite of the fact that the affluent Norwegians drive and fly often and are enthusiastic consumers of imported commodities. Most of the energy used in Norwegian households and industry comes from hydroelectric plants,[2] and the exported oil does not affect the domestic emission statistics. Yet, it is commonly known that Norway is a part of the problem, not of the solution, due to its considerable oil and gas exports. On this background, Norwegian governments—and in particular the center-left government that ran the country from 2004 to 2013—have in mainly two ways sought to balance out some of the detrimental effects of Norwegian oil and gas exports: (1) The directors of the Sovereign Fund, into which most of the state oil profits are invested, are concerned with ethical investments and have appointed an ethical council that oversees its activities, aiming to ensure that it does not invest in "unethical" products such as weapons and coal (!). More importantly, (2) the country commits itself to considerable investments in projects aiming to reduce carbon emissions elsewhere, notably in the Global South. The most familiar of these may be the UN-sponsored REDD Programme (Reducing Emissions

from Deforestation and forest Degradation; the acronym REDD, incidentally, means *save* or *rescue* in Norwegian, but it can also mean *afraid*).

The irony is evident: Instead of implementing changes at home, such as reducing the rate of oil extraction or the level of consumption, Norway pays foreigners to change their behavior in order to reduce the impact of—inter alia—Norwegian oil exports. Prime Minister Jens Stoltenberg (resigned in October 2013), trained as an economist, argued that investing in climate-friendly activities in the Global South was far more cost-effective than spending similar sums in the expensive north.[3]

This duality in Norwegian policy, whereby social welfare and economic growth are closely associated with oil extraction whereas foreign investments and development assistance aim to reduce carbon footprint and environmental destruction, reveals a profound double bind (Bateson 1972). This is arguably the central contradiction in contemporary civilization, where growth in energy use and ecological sustainability are desired at the same time but rarely simultaneously achieved. Successive governments have pledged to fulfill their commitment to reduce emissions by 40 percent compared to the 1990 levels by 2030. So far (2021), emissions are slightly higher per capita than they were in 1990. So, one might ask, are they lying, or do they believe in miracles? Conveniently, political elites in many countries encourage their citizens (seen as consumers) to live more sustainably, perhaps to fly less and eat less meat. A consequence is that the citizens may eventually be blamed for the outcome of a global process on which the politicians did not themselves act.

Another small, geographically peripheral country in Europe is Portugal, where the second author lives. Located in the southwest corner of Europe, its consecutive governments have subsidized "green power" (mainly hydroelectric and windmills) heavily since 2005 but never canceled comparable financial support to fossil energy. In Lisbon, policies to "clean the air" are being implemented—interdicting older cars from circulating in the city center and increasing public transportation, mainly—while the same local and national authorities expand cruise terminals and airports, arguably to serve one of Portugal's main exports, tourism.

The Portuguese do not see themselves as being major global polluters. The circumstance of being a small country with a weak industry reinforces a narrative that places Portugal as a net recipient of climate change. Ursula von der Leyen, president of the European Commission, addressing the European Parliament on the "European Green Deal" in December 2019, said that "Portugal is one of the countries most affected by climate change. The loss of coast, hurricanes, floods, horrible forest fires have taken already a very high toll . . . [and it has] invested significantly [in clean energies] and it will close its last coal mine in 2023. . . . It already has

a surplus in renewal energies. . . . From the Portuguese perspective the European Green Deal is about energy infrastructure, is about interconnectivity [ways to sell renewal energy] and is about adaptation to climate change." These words kindly pair with the discourse and policies of different Portuguese governments: renewal energies are the Portuguese contribution to lower CO_2 emissions and are at the same time a commodity that may be exported. Economic growth is paramount and almost unconditional. The Portuguese national debt and ways to succeed, as a citizen and collectively, postpone strong climate change policies unless they conform to enrichment and economic growth too. The same could be said for many other countries—changes are urgent, but we may say the exchange of goods and mainly the transfer of money is more urgent yet.

The Puzzling Lack of Climate Action

The kind of change of which we are talking is more difficult to achieve than it may superficially seem. Across the world, lives are entangled with things, policies, and everyday activities that contribute to climate change, and while changing ideas may seem feasible, changing infrastructures requires time and investment of a different order. This is the world as we know it, an overheated world that has shifted into a higher gear in its movement toward greater profits, greater prosperity, and more of everything. One could look at anything from groceries in Western supermarkets to the factory that produced the concrete for the house in which the typical member of the global middle or upper class lives. Or we could lift our gaze to a higher scale and consider the phenomenal growth of the Port of Shanghai since the beginning of this century and the container ship technology that has reduced the price of transport by more than 90 percent since the 1960s (Eriksen 2016). Neither the films you watch on Netflix nor the smartphone you depend on for payments and communication are climate neutral.

One explanation for why so little is happening is *path dependence*, a technical term for systemic habit. Most of us affluent northerners act as we are accustomed to, perhaps with a few symbolic tweaks, such as composting kitchen waste before getting into a plane to speak about climate change in another country. On a larger scale, the electrification of the Norwegian oil platforms is touted as a great victory for the climate cause, conveniently failing to mention what the climate-neutral platforms actually extract and produce.

Changing habits is difficult, especially if you feel that things are getting better, which is the case regarding consumption and well-being in much

of the world (Rosling 2018). This is why the contemporary youth protest movement, led by the Swedish teenager Greta Thunberg, is interesting. Adolescents have invested very little in the existing system and, thereby, possess far more flexibility when it comes to endorsing and practicing radical change.

Secondly, *temporality* is significant. Everybody lives in many temporalities, long and short. The meeting tomorrow morning that you need to prepare for has a short—indeed urgent—temporal horizon, as do your children's immediate needs. In the medium term, we plan for our own and the next generation's future, investing perhaps in a house, saving money for our children's studies, borrowing money for a pilgrimage (to Mecca, Lourdes, or Varanasi), a holiday, or a vehicle. Yet, in the long term, we shall all be dead. The question is, thus, to what extent are human beings capable of adjusting their behavior on the basis of events that will (or may) take place when our grandchildren's generation is on the brink of retirement? Evolution has not equipped us with a capability for this kind of global maximum (i.e., accepting a reduction in well-being in the short term in order to improve it in the long term), and it is uncertain whether we are actually able to change our behavior.

Thirdly, *spatiality* is similarly important. As with the case of temporality, human beings typically live most of their lives at a small scale, even if they are fully integrated into large-scale or indeed transnational or global systems. More than half of the text messages we send are addressed to between three and five persons. What matters most to most people is that which is near at hand and the people into whom we have invested our love and commitment or to whom we owe an intangible debt. This is a fundamental insight from anthropological research. On the other hand, abstract ideologies like nationalism and abstract religions like Islam and Christianity show that human solidarity can be extended to higher scales. Yet, it is uncertain to what extent most people will modify their actions, particularly to the detriment of people close to them, for the sake of lofty ideals or abstract communities populated by people they will never meet, such as their great-grandchildren's children.

Fourthly and finally, the problem of *affluence and excessive success* was never addressed in our evolutionary history. Evolution adapted us for a life in scarcity, competition, dangers, and threats, requiring instant gratification and local maxima. Shifting the focus, with the help of cultural practices, values, and knowledge, to a situation where there is too much and not too little will not be easy.

These four problems have not been properly addressed by climate scientists or politicians, even the most well-intentioned of them. Anthropology cannot give an unequivocal answer suitable for every budget,

climate zone, or way of life, but we can offer some ideas, not drawn on discussions with other intellectuals but developed in close dialogue with other people's experiential worlds. This is where the anthropological form of knowledge production differs from nearly every other scientific endeavor. Ethnographies are shaped and created through the interaction of researcher and participants, not by asking particular questions to the latter. For an ethnography to be credible, it has to give a realistic and truthful rendering of local views, knowledges, lives, and experiences. In other words, if the political, economic, and technological elites agree that local perspectives need to be integrated into climate policy, the kind of knowledge represented in anthropology is indispensable.

The solutions offered in mainstream political discourse are typically of two kinds. One family of solutions holds out "green technology" and "green growth" as the only feasible way to deal with the issues. Pointing out that we are currently a global population of seven and a half billion (and counting), who all need food, shelter, and the right to a good life, advocates for this view, who include most politicians and corporate leaders, look to electric cars, solar power, large-scale tree planting, bans on plastic bags, and similar sustainable economic practices for solutions. They argue that a sustainable world will continue to require large amounts of energy in order to avoid famine and human suffering on an unimaginable scale and that the green transition requires huge investments. One of the heroes in this narrative is Norman Borlaug, the main architect behind the Green Revolution, which enabled food production in many countries to increase manifold thanks to extensive mechanization, new and more productive strains of cereal, and chemical fertilizer. The other narrative, supported by many intellectuals and researchers, argues that this kind of solution is short term, produces severe side effects and a loss of flexibility, and is incompatible with fundamental ecosystem needs. An early proponent of this holistic, ecological way of thinking was William Vogt, whose *Road to Survival* ([1948] 2010), a precursor to Rachel Carson's *Silent Spring* and, many would argue, the starting point for the radical environmental movement, claimed that the finiteness of Earth's resources should serve as a guide for political strategy and action (see Mann 2018 for an assessment). Often associated, and rightly so, with neo-Malthusian pessimism (see, e.g., the influential Club of Rome report *The Limits to Growth*, Meadows et al. 1972), Vogt and many of his followers advocate a reduction in the global population, while technological optimists have so far proved that the world is capable of feeding a population that has trebled in size since the publication of Vogt's book (Rosling 2018).

Ever since Marx and Engels argued against (indeed ridiculed) Malthus's warning, published on the cusp of the Industrial Revolution, Malthusian-

ism has been proved wrong in the industrialized parts of the world. Technological and logistical advances have enabled increasing proportions of humanity to grow and prosper for two hundred years since the onset of the fossil fuel revolution just after the French and American Revolutions. However, the fact of anthropogenic climate change, resulting from the kind of accelerated change and economic growth that could be described as global overheating (Eriksen 2016, 2018), may yet prove Malthus right. The fact that natural resources have now been acknowledged to be finite, and that contemporary civilization is undermining the conditions for its own existence by being too successful for its own good in the short term, prompts a rethinking of the conditions of human life, its parameters, and its limitations.

The Primacy of the Local

As late as the 1990s, environmental concerns were a slightly countercultural specialty, inside and outside the academy. The philosopher Arne Johan Vetlesen, who has recently engaged with current anthropological approaches to the culture/nature divide (Vetlesen 2019), points out that during his studies in Oslo and Frankfurt in the 1980s environmental questions were never ever broached (Vetlesen 2015). Eriksen could echo his view from his vantage point across the university square in Oslo. In the anthropology they were taught at the time, environmental questions were associated with classic studies of human adaptation (often deterministic, often with a ring of cultural evolution and its assumed stages) or with distinctively unfashionable anthropologists like Leslie White and Marvin Harris, the latter often dismissed as a vulgar materialist, the former merely as dated. Neither have any visible influence on the field today.

The situation has changed radically in just a few decades. Research money, prestige publications, and professional profiles now often include an environmental interest, sometimes using the term Anthropocene and often mentioning climate change as a professional concern. In this book we are, in other words, adding our voices to a chorus that has very quickly become lively and multivocal. While contributing to shifting the gaze and acknowledging the need for an interdisciplinary, multiscalar, and multitemporal approach that highlights some of the shortcomings of the ethnographic method, we in the volume to follow insist on cultivating, and indeed advertising, the virtues of classic anthropological method in the present endeavor. Through the method of participant observation, we offer a perspective based on experience, from within and from below. We draw on a century of holistic research on integrated life-worlds that make sense on their own terms (if not necessarily on those of modern scientists)

and that are continuously evolving and changing. Culture is not a thing, it is a process. Yet we do not deny that there is a need for historical, statistical, and macrosociological data to produce a full picture.

Climate change is not a catastrophe as this term is commonly understood, that is, in the rapid-onset sense. Unlike the coronavirus pandemic, it is incremental, a slowly creeping process in the slow-onset disaster sense, gradually altering ecologies and livelihoods in ways that differ significantly both physically and culturally, as has been acknowledged by anthropologists before (Oliver-Smith and Hoffman 2020). Although its effects are only now being felt in tangible and often dramatic ways, climate change has been advancing for years. In addition, the changes are often subtle, not always even steady as they effect many different locales. Furthermore, they differ from place to place, sometimes involving erosions, sometimes flooding, sometimes aridity, sometimes crop loss and flora and fauna changes, insect infestations, suddenly intolerable heat, or massive storms. The consequence is that while governments may increasingly issue national rules to counter the effects, edicts to reduce carbon emissions and the use of plastic, implement sustainable energy, and so on, most actual climate change maneuvers, dealings, assessments, adaptations, and countermeasures are taking place at local scales, as they must. Central actors in these efforts are the groups and peoples inhabiting the multifarious locales of the world, and although their experiences and responses reveal that although the ultimate cause of changes in their environments is global climate change, this may not be how the changes are understood. They may be perceived as enigmatic, divine, or routine events that have simply increased in size, intensity, and frequency or have mysteriously morphed. Yet human memory is frail, and most of us are mainly concerned with getting by day to day or, at best, year to year. The temporal and spatial scales of living are out of sync with the large scale and long term of planetary processes.

Changes in the climate may take place without many noticing them until the livestock begin to die, the fields are inundated by seawater, or the soil dries out because of the disappearance of glacier meltwater or rain. Science and erudite forbearance may play no part at the level of the concrete. Nonetheless, it is people on the local levels who are the ones actually coping or adapting to the changes and raising their voices to protest that the changes are not being heeded or dealt with.

The Contribution of This Book

These are the three areas this book deals with: (1) "Ways of Knowing"; (2) "Situations and Decisions"; and (3) "Politics, Policies, and Contestation."

Climate change is already perceptible, although it is not always understood as such. From Thailand to Queensland, many tend to blame weather (not climate), the vagaries of nature, or higher powers rather than the long-term effects of corporate extractive capitalism and complacent government policies when extreme events become more frequent and more intense. However, people in various locations respond to the changes in weather and other patterns by adjusting their practices, migrating, trying out alternative livelihoods, or working discursively or politically to change their circumstances or the underlying causes of their problem. For this reason, the term *resilience* has become a key concept in social research on climate change.

As shown above, a number of volumes on climate change already exist in anthropology. What is unique to this book is its dual emphasis on *regions* and *themes*. The book hopefully shows the importance of ethnographic detail in coming to terms with climate change, showing simultaneously that this is a planetary problem that affects people everywhere, that it is responded to very differently in different parts of the world, and that it requires a broad range of solutions anchored in local circumstances. Just as the main mission of anthropology in the last century has been to document and make sense of human diversity, this book shows variation. Dealing with the loss of snow in the Austrian mountains and its consequences for skiers is quite different from dealing with flooding in the Elbe Valley (to take a neighboring country) and calls for different kinds of stratagems. As we have pointed out, there is frequently no general agreement about the appropriateness of particular solutions, especially at the point where politics takes over from cultural analysis.

In order to provide an appropriate frame for the present book, we could also approach it like this. In a programmatic article written for non-anthropologists, Barnes et al. (2013) identify three areas where anthropology may be in a privileged position to contribute to research on climate change: (1) cultural values and political relations; (2) a historical awareness connecting the present to the past; and (3) the holistic perspective on human life connecting culture and society to its broader ecological context. To this, we add a fourth: if it is anything at all, anthropology is the study of cultural *diversity*, and the niche distinguishing this book from many others consists in the breadth of its ethnography, which indicates that the problems, effects, and solutions of climate change vary considerably. If there is a takeaway lesson for policymakers here, it must be that one size does not fit all, which is to say that climate change is a global phenomenon that stems from a relatively short number of causal factors (commonly referred to under the umbrella term *emissions*), but the ways to fight it have to be localized.

Our empirical cases range from the US Southwest and Southeast, Germany, and Austria to Bangladesh, Mexico, Namibia, New Zealand, and Portugal. In the first part, "Ways of Knowing," the main focus is on differing perceptions of climate change. Starting by distinguishing between climate and the weather, Michael Schnegg points out that Namibian pastoralists in fact possess considerable knowledge about the latter but lack concepts about the former. Like most of us, perhaps. He also proposes the concept *environmental pluralism* to designate the diverse sources of knowledge about weather and the environment. In the next chapter, Alexander Aisher takes us across the globe to Arunachal Pradesh in the Eastern Himalayas, where concerns with weather are no less prominent than in semiarid Namibia but are played out differently in a very wet climate; here the major North Indian rivers originate and cosmological explanations are invoked to make sense of "strange weather" such as sudden storms. Matthew Lauer and coauthors provide a third, locally grounded lens through which to view climate change in their account of the diverging perceptions of the spread of the crown-of-thorns starfish in French Polynesia. It had been known for a long time by local fishermen, who did not accord it much importance as it did not interfere directly with fishing; however, scientists, who represented different knowledge interests, understood the prevalence of starfish in a different light: as destructive to coral and indicative of climate change. In the final chapter of this section, Pedro Paulo de Miranda Araújo Soares traces the transformation of the Amazonian city of Belém from a "tropical paradise" to a flood-prone, profit-generating, ecologically precarious city seen as a success through the eyes of planners but not from the point of view of residents or ecologists.

The second part, titled "Situations and Decisions," focuses on changes in the physical world resulting from conscious, if sometimes misguided, decisions at a political level. Tasneem Siddiqui, Mohammad Jalal Uddin Sikder, and Mohammad Rashed Alam Bhuyian's chapter, focused geographically near Aisher's field site but socially and culturally a world apart in low-lying, Bangla-speaking, Muslim Bangladesh, presents findings from research on migration into Bangladeshi cities. The migrants come from ecologically vulnerable places (with flooding, land scarcity, and land grabbing) and go to ecologically vulnerable places (with poor hygiene and housing, and so on). Although population growth and vagaries of nature may be invoked, the analysis makes it clear that the situation is a result of policy decisions and anthropogenic climate change. Brian Orland, Meredith Welch-Devine, and Micah Taylor, in the following chapter, investigate the reluctance of people in the US state of Georgia to migrate following a devastating hurricane, quite the contrary of the Bangladeshi situation, where many are prone to leave owing to erratic weather. A sim-

ilarity is nevertheless that the poor are more likely to leave than the affluent. Moving yet again to a different continent and a different local context, Paul Schneider and Bruce Glavovic describe responses to erosion and environmental degradation in the Coromandel peninsula, a popular holiday destination, in Aotearoa New Zealand's North Island. Compounding the complexity of the locality is the fact that it is inhabited partly by people of European descent, partly by Maori. In the following chapter, A. Peter Castro, who has worked in different East African countries, presents three "cautionary tales" from three countries—Kenya, Somalia, and Ethiopia—which all indicate conflicts of interest and power struggles where, alas, advocates for the environment tend to lose out, beginning with logging activities in the Kenyan highlands as early as the turn of the last century. Shifting the attention to problems of the affluent, Herta Nöbauer then shows how ski resorts in Austria are developing technological solutions to the increasingly erratic snowfall and retreating glaciers by building artificial, climate-independent slopes and tracks.

The third and final part, "Politics, Policies, and Contestations," begins with Kristoffer Albris's analysis of resilience and reconstruction following a devastating flood in the Elbe Valley, Germany. Here, in a setting comparable to that of neighboring Austria, adaptation rather than calls for systemic change is the main response to perceived climate change. Julie Maldonado and Beth Rose Middleton, in the next chapter, detail how Native American tribes in the Southwest struggle, as they have since the beginning of settler colonialism, to retain autonomy and their livelihoods in the face of encroaching industrial capitalism, and how the unpredictability of the weather has exacerbated their problems. Loss is also the topic of the next chapter, by Guilherme José da Silva e Sá, who provides an account of a "rewilding" project in Portugal that is an attempt to restore a natural habitat to an imagined pristine condition by introducing species that may have thrived there before the Anthropocene. The thin membrane separating humanity from nature in the modern constitution becomes visible in this way, and rewilding is also a reminder that the boundary between nature and culture is now wholly managed by humans. Returning to the theme of knowledge but supplementing it with an analysis of the political forces creating a particular, volatile relationship between humans and nature, Amanda Leppert and Roberto E. Barrios explain Meso-American historical perspectives on the environment and those in the contemporary situation. Susanna M. Hoffman's chapter, finally, identifies some of the human drivers of seemingly natural disasters, connecting them to the general processes of climate change.

The local issues differ; local understandings vary; the opportunities presenting themselves to the affected people are hugely different between

the ski slopes of the Austrian alps and the shanties of Bangladeshi cities. Nonetheless, at the same time, there is a pattern that connects them, that of globalization in the Anthropocene, which is not merely about labor migration, or consumer goods, or social media, or mining jobs, or outsourcing and a growing scalar gap between decision-makers and the people decisions are made about. It is invariably about the entanglement of everybody with everybody. Ironically, this turns out to be the crisis that requires a truly global conversation about our common destiny, and in this area, anthropologists can make a significant difference. Time is running out, and at the time of this writing, it is still easier to imagine the end of the world than the end of capitalism.

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Notes

1. A brief history of notions such as "progress," "economic development," or "sustainable development" would translate systems of thought and ways of doing that would highlight simultaneously the appropriation and exploration of nature resources, modes of production, and shared concerns that are key for the under-

standing of anthropogenic forces behind climate change. In one word, *growth* still is the main goal, and although it may be measured in economical charts, its value is also moral, if not mainly so. Concomitantly "the faith in technology," in the unstoppable technological progress, contributes to deferring in time, if not suspending, changes and policies that could mitigate climate change more rapidly.

2. The production of "clean energy" is in itself a never-ending puzzle. Hydroelectric dams are big sources of methane and CO_2; wind turbines use sulfur hexafluoride (SF_6), a potent greenhouse gas; solar energy relies heavily on mining and metallurgical industries and produces large amounts of toxic waste (mainly tetrachloride). Though these energy sources are reportedly less harmful to the environment than fossil fuels, controversies remain; see, e.g., the views of James Lovelock (2007) on nuclear energy.
3. At the same time, it is not uncommon to find affluent persons traveling around the world in private jets while supporting financially "green projects" such as electric cars, forestation, or "transition communities."

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