

Part I

Ways of Knowing

The ubiquity of climate change is undeniable. However, as the ways in which it is lived, interpreted, and understood vary locally, so do the social narratives that explain it. While by and large (hard) sciences, technology, mathematical models, and algorithms dominate public discourse, there are places across the world where this is not the case. In the geographies where scientific accounts do not prevail, the definition often speaks of weather, not climate; reports to long-term cultural lore or embedded belief systems; elides historical depth and accumulating knowledge to cite obscure long-term cycles; or speaks of personal experiences and not overall global scales. It is commonly said that “climate change does not respect borders.” In turn, also, national and international organizations, and the sciences that inform them, often do not respect other forms of knowledge—although some authors consider that this may be changing. Ways of knowing are also ways of forgetting: forgetting past events, forgetting forms of interpretation, forgetting shared worldviews and cosmogonies.

The ethnographies in the first section of *Cooling Down: Local Responses to Global Climate Change* provide a good example of how anthropology is able to contribute to the study of climate change, not only by invoking other forms of knowledge but also by reflecting on how other societies and cultures are dealing with the phenomenon. In the forthcoming pages we travel through different ontologies and geographies: Namibia, the Himalayas, Polynesia, and Brazil. All chapters in this section further address concomitantly these issues: culture-situated cosmogonies and *Westernized* (as M. N. Srinivas named it long ago) ways of knowing, their juxtaposition and relations of power and authority.

Michael Schnegg takes us to Fransfontein, a small community in north-western Namibia. The *#nūkhoen*, hunter-gatherers, nowadays predominantly shepherds, refer to the most drastic periods of drought they face as *#û-i lkhai*, times of “no food.” More than a long period without precipitation, drought is understood as a phenomenon centered on its sociobiological effects. However, after a long fieldwork, Schnegg, himself a cattle farmer who has lost half of his herd to drought, is challenged by different local ways of understanding and narrating the climatic phenomenon. Gendered winds, deities, and climatology coexist locally and are often expressed collectively by the same person as sources of explanation for both recurrent and extraordinary phenomena. Consequently, traditional and modern ecological knowledge coexist. This concurrence of narratives based on tradition and religion crossing with scientific knowledge suggests to Schnegg a notion of *environmental pluralism*, “where a person uses different, ontologically and epistemologically contradicting knowledge systems to explain environmental phenomena.”

Alexander Aisher takes us to the Eastern Hymalayas, to Talum, a village mainly inhabited by Nyishi people who depend on subsistence cultivation for their survival. He writes, “place-based communities in the region have already noticed more erratic rainfall,” and while many local perceptions of climate change in the Himalayas are now being validated by scientific evidence, as all anthropologists know, storytelling, traditional ecological knowledge (TEK), and the ethnographies about it are as important as the data collected upon the thousands of meter-deep polar ice drills.

Matthew Lauer and his coauthors follow this line of enquiry unequivocally and question how different ways of knowledge, namely TEK and science, approach marine life (and its eradication) in French Polynesia. On the reefs surrounding Moorea, an island twenty kilometers west of Tahiti, an outbreak of crown-of-thorns starfish was being understood by marine scientists as the cause of a major coral depletion. At the same time, local fishing communities were aware of the outbreak and the coral loss, but did not consider them significant and did little to respond to them, as the authors mention. The gigantic and poisonous starfish has been a matter of vivid discussions among the numerous scientists associated with “one of the most studied tropical coral reef systems in the world.” The multidisciplinary team of scientists of this chapter pose questions such as, “Who notices changes to Moorea’s coral reefs, and how can it be judged if they are noteworthy?” and, “What should be done if a perturbation and its effects are identified?” It is noteworthy that French Polynesia, although being a relatively highly subsidized colony, remains a colony. Questions of “knowledge colonization” gain particular relevance here, if not else for symbolic related issues. Nonetheless, as the starfish overshadows the

coral reef, scientific knowledge overlays local ecological knowledge and local everyday practices deeply rooted in time.

Concerning the Una Basin, Belém, Brazil, Pedro Paulo de Miranda Araújo Soares depicts a “modernization” process: “In the name of progress, modernity, and ultimately development, both nationally and internationally funded economic projects attracted a massive influx of investments and migrants to Belém between the 1960s and the late 1980s.” During those decades, the population of Belém more than tripled its size, and the banks of the Amazon Delta region became densely populated, crowded with highly polluting factories and subject to never-ending works carried out on drainage, basic sanitation (sewage and solid waste management), and water supply. The main project turned what was once a clean river flowing through the city into a concrete-embanked polluted drainage ditch. Soares centers his research on the impacts of the policies mainly on what concerns the management of floods and introduces the concept of environmental memory. Soares’s notes on the development of the sanitary conditions of Belém are particularly striking. A large number of deaths in Brazil, specifically in the cities of the Amazon Delta, are certainly related to the schemes of the government, but also to centuries of devastation of the Amazon River forest, and ideas of progress, economic growth, and personal success. Yet, despite the horrific pollution caused by the capitalistic development programs that is now constantly exacerbated by climate change flooding, the inhabitants of the even more marginalized neighborhoods along what was once the fresh river continue to treat the putrid stream as if it were still fresh. They interpret the befouled floodwaters as per the memory of “what once was,” not “what is now.” Perhaps surprisingly, or not so much, Pedro Soares tells us as well that the Amazon cities are not being considered in the Brazilian climate change policies and reports.

Ways of knowing are ways of living and, therefore, different ways of participating. The obliteration of other forms of knowing, namely those based on TEK, is a major loss to the study of climate change and to forms of mitigation and disaster prevention. Back in 2004, several people of the Andaman Islands became a world news sensation: although isolated and with no modern earthquake alert technologies, they managed to survive a tsunami by “climbing up the mountains” hours before it made landfall. Reportedly, their TEK establishes links between a number of natural events, such as earth tremors, sea retrocede, change in behavior of other animals, tsunamis, and the effects of climate change, and even affords ways of dealing with it.

Relying on ethnographies of different epistemologies and ontologies, anthropology may not only report “case studies” but also contribute to

the proposition of different ways of doing, therefore to different ways of fixing that finally may configure other ways of knowing and inhabiting shared environments.