



Introduction

“Grief and yearning” were the cause of death, wrote Hugo von François in 1896. At the time von François was a colonial soldier serving in the *Schutztruppe* (literally protective troops) in German Southwest Africa (modern-day Namibia). He continued describing how “due to its lonesomeness, the animal repeatedly escaped to the coast” and eventually killed itself.¹ Hugo’s older brother Curt, who happened to be the colony’s first commissioner, had purchased the camel stallion on the Canary island of Tenerife seven years earlier. Technically, this was not even a camel (*Camelus ferus*); it was a dromedary (*Camelus dromedarius*), a well-adapted animal with only one hump, longer limbs, padded feet for desert travel, and shorter hair meant to deal with warmer climates. Since these mammals can withstand severe dehydration, drink quickly, and deal with heat and dust storms, their import into a colonial possession defined by aridity made sense. Once purchased, workers had dragged the frightened creature onto a steamer to the colony, unloading the animal in the nearby British enclave Walvis Bay. With few natural harbors along a rugged and dangerous coastline, the Germans still relied on their competitor’s landing structures. Logistical problems did not end there. The high sand dunes of the Namib Desert, one of the oldest landscapes in the world, as well as waterless lands virtually shielded the interior of Germany’s first colony from newcomers. Although colonialists soon planned for technological solutions, in the 1880s treks venturing inland still relied on ox wagons. Maybe, so some hoped, camels would change such dependencies. German commissioner Curt von François at least felt confident that this animal transfer might simplify the situation in Germany’s first colony. He thus spent an astonishing 7,000 Marks on the relocation of just one camel.² Sadly enough, this first, lonesome animal got homesick, “longing for the land of its heart,”³ as Hugo von François wrote. It ran away to the coast several times, drowning at one point once the ocean current got ahold of it. Maybe it felt mistreated. As a herd animal it likely also sought company. Camel friends did not arrive until July 1891, when the colonial government imported another ten animals—two stallions and eight mares. When it came to revolutionizing transportation that animal relocation made no difference. For one,

these desert ships had a hard time scaling the steep sand dunes of the Namib Desert. Plus, German handlers had no idea how to work with them. Camels demand expertise and experience. And they need patient handlers. Neither was present in Southwest Africa. Instead, soldiers got irritated and annoyed. The camels, on the other hand, denied cooperation: they simply refused to get up, screamed vigorously, and bit their handlers, or just tried to brush riders off by making use of low-hanging branches.⁴ Dreams of quickly scaling the desert, of reaching the opportunities found behind the dunes, lingered for some time.⁵ In the end, however, those fantasies quickly vanished like desert mirages.

This study analyzes environmental factors and logistics in the creation of the settler colony German Southwest Africa (1884–1915). The infamous Benguela Current, a treacherous coastline, and the Namib Desert kept the interior off European minds and maps for centuries. On the other side of that borderland, few local groups found ways to sustain life in inhospitable desert landscapes and along dangerous ocean coasts. By the late eighteenth century, however, the commodification of resources, soon followed by the tentacles of aggressive global market capitalism, extended into this space. Demand for whale oil, seal skins, and guano resulted in booms and busts along a newly forming commodity frontier as Europeans and Americans plundered the coastline. African societies initially gained from interactions with outsiders. In the long run, however, all kinds of newcomers, be they missionaries, traders, miners, explorers, or whatever, introduced early imperial structures. The British declared ownership of the most prominent landing spot, Walvis Bay. In 1883, German businessman Adolf Lüderitz then laid claim to the area the Portuguese had called Angra Pequena, the Little Bay. Known by the 1890s as Lüderitzbucht, next to Walvis Bay it remains the only other natural harbor in modern-day Namibia. Officially under the protection of the German Imperial government by August 1884, its two bays provided an initial access point into the Second Reich's first and soon most important colonial possession: German Southwest Africa. Yet Germany had been a latecomer to the many Scrambles for Africa, picking up leftover crumbs of a cake that other colonial powers had sampled but left aside. In this context that meant difficult entry into the colony, problems crossing the Namib Desert, and widespread aridity. All of these logistical problems added to already mounting pressures when it came to the making of permanent settlements understood as German *Lebensraum* (living space) for a crowded homeland.⁶

Nature and culture are key for understanding the dynamic process at play in this creation of German Southwest Africa. Instead of separating both realms and emphasizing Western-centric technological cultures in the fight against outdated natures, this study employs historian Emmanuel Kreike's concept of environmental infrastructure. In his view, environmental infrastructure is "neither fully Nature (thence the anthropocentric infrastructure) nor entirely

an artifact of Culture (thence the qualifier *environmental*).⁷ Instead, such structures constitute “a coproduction of human ingenuity and labor on the one hand and nonhuman actors (animals, insects, microbes, and plants) and forces (physical, chemical) on the other.”⁸ Apart from emphasizing processes and outcomes, this framework also highlights muddled messes of human and non-human agencies. The focus on what Kreike calls environmental “infra-structuring” or “environing” in his view “advances understanding of the process of environmental change, highlighting the pluralistic and differentiated character of the agency, motivations, and mechanics involved.”⁹ For German Southwest Africa, *environing* offers the analytical space to incorporate technological, human, and animal engineering while acknowledging messy hierarchies, complex entanglements, and multiple agencies.¹⁰ For one, human agents mattered in Southwest Africa. African inhabitants had long lived in, and impacted, the region. Later, “the impact of (Western) markets and commodification,” to follow Kreike, was a “form of human agency that dramatically shaped the environment.”¹¹ Such demands initially drove whaling, sealing, and guano mining (later copper and diamond mining), and in that process shaped colonial encounters with coastline and hinterland. Over time human ingenuity and knowledge fashioned the creation of landing structures, railways, and irrigation systems meant to access and sustain a colony designed for Germans. The construction of the *Mole* in Swakopmund, a concrete pier reaching into ocean waters as well as railways scaling deserts underscores the role of technology that has long defined understandings of German imperialism in the region. The exploitation of contract, migrant, and forced labor to build and maintain such structures was essential, and Germans employed discriminatory policies, everyday colonial violence, and genocide to use African bodies meant to compensate for the failures of existing structures. Second, non-human agents including natural forces mattered. The Benguela Current and the Namib Desert created a borderland that shaped environmental infrastructure. Plus, flash floods impacted landing structures and railways while aridity constituted more than a backdrop for those trying to settle the land. Non-human agents such as *Rinderpest* (cattle plague) pathogens disrupted transportation and reshaped power structures; that pandemic also resulted in the resurrection of animal transfers. Or take the naval shipworm, a chewing mollusk whose appetite destabilized wooden structures in Germany’s entrepôts. In that sense, human factors (ingenuity, labor) and non-human factors (physical environment, biological agents) defined the making of the colony.

The framework of environmental infrastructure provides avenues for exposing colonial narratives. Part of a broader Western discourse, contemporaries and scholars long tied discussions to investment, improvement, progress, rationalization, modernization, development, and technology.¹² Distance-diminishing technologies including roads, bridges, railroads, telegraphs, to

borrow James C. Scott's term, or the process of *Erschliessung* (opening-up) in the German context, has thus seen a good amount of scholarly attention.¹³ Of course, motivations and overall objectives were by no means homogenous. In German Southwest Africa, at least, schizophrenic and ever-changing visions regarding the colony's future,¹⁴ maybe even fantasies, collided throughout this timeframe.¹⁵ Still, contemporary proponents of German colonialism largely agreed on the need for easy access, the solution of the water question, and the creation of sustainable settlements for Germans. Engineers thus oversaw the construction of a new harbor in Swakopmund; they also built railways inland. Hydrologists meanwhile pushed for comprehensive irrigation projects meant to transform arid and hostile landscapes into homesteads based on cattle farming and agriculture. Setbacks and failures, which scholars have seen as feeding vulnerability,¹⁶ became part of their colonial narratives. That deeply rooted European storyline orbited around the struggle against nature, that conquest and transformation of wastelands into productive spaces.¹⁷ More so in empire, and as outlined by historian Corey Ross, "The European claim to mastery over nature was a central legitimatory prop of modern imperialism—one that not only resonated with contemporary notions of racial hierarchy and societal evolution, but that also nourished a belief in the right, even duty, of Europeans to govern those who were less capable of controlling the world around them."¹⁸ In German Southwest Africa, hydrology engineer Friedrich Ortloff, who was responsible for the construction of a harbor in Swakopmund, saw his efforts as a battle against the onslaught of the ocean. Failures or unintended consequences resulted in brief reevaluations but rarely challenged self-perceptions of technological advancements. Insistence and willpower, maybe even stubbornness, were the name of Germany's colonial strategy when battling flash floods, diseases or a wood-eating mollusk. Progress, after all, understood as the mastery of nature, always lay just around the corner. Scuffles against nature gave meaning and strengthened overall *Deutschtum* (Germandom), and for German settlers, who saw landscapes transformed in their favor in the long run, such heroic tales help them developed a frontier spirit and Southwestern identity.¹⁹

A focus on environmental infrastructure also further contextualizes and complicates discussions of colonial violence, including war and genocide. Meant to underscore the intimate entanglements between development and destruction in the making of the German Southwest Africa, this approach accentuates logistics beyond German agencies. Of course access and water mattered for anyone living in the region. For the German vision of the colony, it was central, as was a dependent labor force meant to sustain German living spaces. The *Rinderpest* pandemic assisted in the German creation of a settler colony. Although it disrupted transport to the interior, this pathogen destroyed the livelihoods of the Herero in Central Namibia, forcing them into dependencies grounded in exploitative and discriminatory labor relations. In

addition, the pandemic pressured stakeholders in Berlin to invest in the construction of a railway. All of that brought more settlers into the region. Those newcomers then took over land and water, reshaping existing environmental infrastructure into restricted setups meant to sustain a white settler colony grounded in everyday violence. A major rebellion became the last resort for Herero and later Nama; a subsequent war and German genocide then became the basis for the creation of white settler living space. The war was a complex affair defined by emergent brutalization.²⁰ Environmental infrastructure as an instrument of war and resistance shaped these processes. African forced labor compensated for failing structures meant to sustain the war effort; precolonial structures sustained opposition beyond the official end of the war. Labor laws later ensured Africans stood in cold ocean waters to build jetties, laid railway ties across arid landscapes, dug wells for German farmers, and crawled over hot desert sands searching for diamonds. In that sense, and in line with scholarship aiming to see the global without ignoring the local, environmental infrastructure making up settler colonialism entailed the destruction and containment of African societies.²¹

A study focusing on the creation of German Southwest Africa as the Second Reich's first and only settler colony, the multiple and entangled agencies involved in that process, and the consequences of such efforts thereby has four objectives. For one, paying attention to nature's agency within German Southwest Africa muddles existing storylines. Geography, environment, or nature more broadly, mattered. The Benguela Current, a lack of natural harbors, and the Namib Desert defined interactions and structures within this space well before the Germans arrived; a lack of water further shaped dynamics throughout the colonial period. Plus, non-human agents influenced human behaviors and the other way around. Whales, seals, and bird droppings pulled Europeans to the coastline in the first place. The disruption and destruction of animal habitats and lives, and subsequent migration or extinction, later molded encounters. The *Rinderpest* challenged logistics and destroyed African livelihoods while the cravings of the naval shipworm made additional investments a necessity. In that sense, nature mattered—as did human actions. Maybe historian Bernhard Gissibl put it best when writing in a similar context, “Animal action and behavior influenced and determined what humans did (and vice versa). In that relational processual, and compounded sense, animals did have agency.”²² Imperialism effectively enlarged “the spatial scale of such entanglements and broaden[ed] the cast of actors,” to build on Ross's work.²³ This study thus remains distinctly human-centered or anthropocentric, yet messy with its unresolvable tensions and inseparable mixtures of agencies.

At the same time, and as the second main point, human views of nature and the stories we tell ourselves can teach us much about contemporary mentalities and identities. In an effort to question and deconstruct settler narratives,

this volume primarily focuses on German tales of conquest. Whereas African narratives and experiences are central to any discussion of environmental infrastructure in the region, the use of that framework is meant to disrupt descriptions of dramatic episodes staged or sold as the conquest of nature. Epic battles between culture and nature, future and past, West and rest, advanced and uncivilized made wonderful tales for Germans; yet those stories must be contextualized, complicated, and contradicted. As outlined by historian Christo Botha when it comes to Namibian environmental history, the appreciation that dynamics during the colonial period were “pervaded by European perceptions of toil and battle to tame a hostile landscape” are central to make sense of these times.²⁴ Again and again the Germans portrayed colonialism as a struggle between man and nature, that played out in different acts or episodes. Such stories defined the long nineteenth century, Europe’s age of conquest and progress.²⁵ Take the German tale of the *Deichgraf* (Dykemaster), the infamous main protagonist of writer Theodor Storm’s *Der Schimmelreiter* (*The Rider on the White Horse*). First published in 1888, the main character took on the forces of nature when hoping to claim and protect the land from the North Sea. Contemporaries framed efforts to construct landing structures along similar lines and wrote extensively about such “fights.” For them, nature acted when they wrestled against ocean waters or battled with desert sands that constantly covered railway tracks amid the Namib Desert. At times, they also fought against non-human actors, such as the pathogens of *Rinderpest* or a small ocean termite that persisted in eating away at wooden landing structures. For some, even the struggle against a resisting or just existing local population became part of this war. Views of the indigenous populations as *Naturvölker*, a term that literally translates to nature people as thereby distinct from *Kulturvölker*, cultured people such as the Germans, at times justified destruction.²⁶ Everyday violence, even the annihilation of African societies, seemed part of a larger natural transformation process grounded in Social Darwinism. Exposing and disrupting such storylines, by giving agency to multiple actors, is thereby essential when hoping to paint a complex and nuanced picture of the German colonial project in Southwest Africa.

Third, a framework aimed at bridging divisions between culture and nature draws attention to the overall German belief in technology, progress, and the rule of experts; it also underscores that colonists questioned if not dismissed local indigenous expertise and labor. In Southwest Africa it had been missionaries such as Gotthilf Büttner or Johannes Olpp that originally helped frame imperial fantasies; later it became explorers such as Gerhard Rohlfs, botanist Hans Schinz, or individuals like geographer Karl Dove, that pointed to future transformations of the colony rooted in infrastructure. The François brothers both wrote extensively about the colony early on and tried their hand at animal transfers. In that sense, officials called for engineers who were “driven

by an optimistic belief in progress” and trusted “that they could transfer the concepts of maximum efficiency and productivity from the mechanical world to the organic world,”²⁷ to follow one historian writing about nineteenth century Prussia. In Southwest Africa, German expert building officer Friedrich Ortloff supervised the construction of a concrete pier in Swakopmund; hydrology engineer Theodor Rehbock and engineer Alexander Kuhn outlined ways to solve the water question. Animal engineering, maybe best personified by expert epidemiologist Robert Koch, followed similar trajectories. At times outspoken farmers such as Albert and Gustav Voigts, Carl Schlettwein, and Ferdinand Gessert clashed with these “outsiders.” In their view, they themselves had worked the land and could thus claim real expertise. All of those “experts,” including a handful of “German women for empire,”²⁸ as historian Lora Wildenthal has called them, were pitted against supposedly stubborn and backward African societies and inhabitants. In line with historian James Scott’s critique of “imperial and hegemonic planning mentality that excludes the necessary role of local knowledge and know-how,”²⁹ few Germans cared about existing indigenized African knowledge and expertise regarding landscapes, water, and other resources. Such know-how only existed elsewhere, like when the Germans eventually hired expert camel handlers from Northern Africa. That attitude, of course, is part of a Western-centric global and colonial network,³⁰ as German newcomers in Southwest Africa “considered themselves uniquely qualified as guardians of an undeveloped arid country and took pride in their scientific innovations and economic achievements,” to follow Botha.³¹ Simultaneously, the long-discussed laboratory of modernity was much more fluid and complicated than we tend to believe.³² German hydrologists, for instance, were part of a multilayered global network, visiting sites in neighboring South Africa, listening to the complaints of local farmers in Southwest Africa, and learning from irrigation schemes in the American West and Australia; they also inadvertently incorporated indigenous knowledge while trying to accommodate for German folk traditions such as dowsing. Multidirectional entanglements and overlaps regarding the transfer of technology was hence defined by multiple centers and peripheries, and repeatedly shaped by everyday life and local environmental circumstances. Meanwhile African labor, repeatedly pushed to the margins in popular discussions that argue that the end justifies the means, fell to the wayside. Kru men from West Africa served as landing experts to sustain the colony; Herero, Nama, and Ovambo labor built landing structures, railways, and dug wells. Their know-how, contributions, and voices mattered greatly in the creation of Southwest Africa, a space never meant for them.

Finally, a discussion of environmental infrastructure provides a framework of analysis when thinking about connections between conquest, transformation, and destruction. Death and development go hand in hand in Southwest

Africa.³³ Newcomers disrupted ecological systems when slaughtering whales, seals, and other animals; they introduced new species when bringing along the naval shipworm. Whereas animals adapted, migrated, or perished, humans within those spaces faced similar fates. Try, fail, and try again was the German mantra in many circumstances, and some hesitation before judging with the benefit of hindsight is beneficial. Nonetheless, in German Southwest Africa, and in colonial settings in general, improvements were never intended for Africans. Instead, transformations included by default the subjugation, exploitation, and at times also the virtual annihilation of Herero, Nama, and other local societies. According to understandings at the time, lands were unoccupied or unutilized, and in need of German infrastructure. Everyday violence against nature and some of its people, even genocide, became an essential ingredient in this transformation of nature. Although the colonial state rarely had total control, and various forms of resistance remained widespread, improvisation of colonial authorities within frontier environments remained devastating for the local population.³⁴ Difficulties accessing the interior of the colony, for example, required railways crossing desert landscapes. Colonial narratives point to engineering marvels and a successful conquest and transformation of nature; in reality, it was the labor of namely Herero, Nama, Damara, and San that allowed for such, at best, temporary mastery of an arid terrain. Environmental infrastructure, created for white upper-class settlers, was thus deeply intertwined with the back-breaking labor and the destruction of a black proletariat.

Weaving together different scholarly works helps drive the narrative. In line with discourses situated “at the intersection between imperial history, environmental history and history of technology,”³⁵ *Environing Empire* pushes New Imperial and Global History beyond considerations of connectivity and mobility.³⁶ Thanks to scholarly publications concentrating on Germany’s first and arguably most important colony, such an attempt has become feasible.³⁷ In many ways historians Horst Drechsler and Helmut Bley initiated critical discussions in the 1960s. The latter already described well-known patterns of military conquest and settler colonialism although he noted that there were only “minor differences to be expected from the geography.”³⁸ Since then, scholars have acknowledged existing challenges grounded in geography and the environment, explored the disconnect between imperial imaginations and realities, and discussed what historian Jürgen Zimmerer once titled “infrastructural inadequacies.”³⁹ An array of case studies tied to conquest and cultivation, conservation, commodification, afforestation, the *Rinderpest* pandemic, and war also offer a plethora of vantage points.⁴⁰ Recent and forthcoming works meant to re-center labor and laborers in Namibian history provides avenues for moving beyond existing paradigms as well.⁴¹ Inquiries around *Siedlungskolonialismus* (settler colonialism), *Lebensraum* (living space), genocide, and settler identities, at times overshadowed by discussions focusing on continuities within

German history, have generated lots of interest.⁴² Essential when engaging with Namibian history have been studies focusing on indigenous populations that have long shaped and reshaped environmental infrastructure.⁴³ Thanks to the work of many experts it has thus been possible to step outside colonial and national premises by looking for “evidence in the raw materials of other disciplines,” be it archeology and anthropology, geography, biology, or ecology.⁴⁴

The incorporation of previously overlooked materials, along with a fresh take on long utilized sources, sustain this study. With an emphasis on the German period, *Environing Empire* relies in large part on colonial archival records. As historian Lorena Rizzo recently put it, “we are well advised to keep in mind that German colonial ideas and hopes of total conquest and control of the African population remained a fantasy.” After all, she continues, “The South West African territory was simply too extensive, and the government lacked the resources in funds and personnel to achieve its proclaimed aims. Likewise, colonised subjects—while undoubtedly suffering under a repressive regime—kept finding ways of resisting and evading the grip of the state and its executive institutions, such as the police.”⁴⁵ Subjective perceptions of colonizers, their dreams of the empire, are useful to capture understandings of nature from that perspective. German officials, settlers, and all kinds of experts left behind treasure chests filled with heroic legends, imperial fantasies, and at times unexpected downfalls. Personal files, official reports, and colorful sketches give insight into the colonial gaze while technical magazines give a sense of expert views. Previously snubbed materials of technocrats in particular, as well as materials describing environmental forces and animal agents, are front and center. Diaries, travel accounts, and newspapers supplement that narrative and can help us understand the messiness of underlying agencies and consequences once questioning heroic colonial storylines and reading against the grain.⁴⁶ Landscape photographs, for example, often constructed empty spaces to justify imperial control and indigenous displacement;⁴⁷ the positioning of infrastructure within such snapshots can also serve as evidence, especially because colonists displayed trophy-like showmanship of conquered natures. African agents and agencies, and the voices of Herero, Nama, Damara, San, Ovambo, and other groups are vital to make sense of environmental infrastructure. The use of oral histories, defined as eyewitness accounts of contemporaries, life stories, and traditions, is without a doubt “a methodological must” when it comes to Namibian history.⁴⁸ However, and similar to efforts regarding the transformation of nature elsewhere, the views of those at the receiving end rarely make it into the archives. Fortunately, researchers now have a tapestry of materials available to them.⁴⁹ And so, in these sources, the multilayered and intricate voices of nature exist. Nama share their extensive knowledge tied to flora, fauna, and water networks; settlers with their camp-

fire stories⁵⁰ and gossip seeped in colonial thinking tell heroic tales of pioneers fighting nature; and colonial experts point to future improvements of nature when inserting photographs displaying the damage caused by the mollusk into archival records.⁵¹ At other moments, visiting shipwrecks along the Skeleton Coast convey accounts of treacherous ocean currents; the silted-in remains of the *Mole* in Swakopmund capture the role of wandering sand; dry riverbeds, arid landscapes, and abandoned dams encapsulate the water question. Wearing good walking boots, to see, hear, smell, touch, and feel these factors on-site—the mighty waves of the Atlantic Ocean, the excruciating heat within desert landscapes, the remains of long-gone infrastructure—helped reveal nuances when trying to paint a multilayered picture defined by an array of protagonists. Overall then, and in line with the recent scholarship, “pursuing such an entangled history of technological infrastructure, colonialism, and the environment has immense potentials to overcome current biases and limitations, widening the scope of investigation to formerly neglected areas, topics, and actors, putting ‘classic’ theories and assumptions to the test, and retelling familiar stories with new twists to the tale.”⁵²

Environing Empire is organized more or less in a chronological manner from predatory commercialism to genocidal settlement colonialism, including “phases of apathy, brutality and reform.”⁵³ Each chapter explores human ingenuity, labor, non-human actors, and natural forces, all of which make up environmental infrastructure; sections also unpack colonial tales. Chapter 1 sets the stage by focusing on resource extraction along an environmental borderland. Objectives are twofold: to demonstrate how environmental factors framed the incorporation of the shoreline into capitalistic, administrative, and colonial structures; plus, to show how such forces eventually “entrapped” subsequent German colonial efforts. Structures to access Southwest Africa are the focus of chapter 2. As coastal towns, Angra Pequena and Swakopmund encapsulate German pains when trying to create their own entry points into the colony. The role of Great Britain as a model and adversary, African resistance, the convoluted nature of German colonial policies, and non-human agents such as *Rinderpest* capture the multiplicity of players at work. Chapter 3 then centers on landing structures and railways as solutions to difficulties in entering the protectorate. The construction of the *Mole* in Swakopmund and a rail line to Windhoek paint a picture of human ingenuity. Yet other actors such as natural circumstances are vital when trying to understand setbacks and broader consequences. Efforts to solve the water question are centered in chapter 4. A lack of drinking water was a major challenge haunting the colony throughout its existence. Here, colonial experts, and a belief in hydrology and irrigation, drive the narrative. The inclusion of silenced local knowledge, grander visions of the colony, and natural circumstances again speak to muddled agencies. Chapters 5 and 6 discuss environmental infrastructure as an instrument of war

and resistance, beginning with the initial phase of the 1904 Uprising. On top of Herero resistance, the harbor in Swakopmund begun silting in while issues with flash floods further disrupted the use of the railway. Such strains characterized the German military campaign and raised anxieties; they also shaped colonial storylines devoid of African agency. Chapter 6 stays with logistics, war, and genocide. For one, the shipworm disrupted landings in Lüderitzbucht and Swakopmund; moreover, mobile desert dunes piled on train tracks crossing the Namib Desert. Colonial narratives, the role of African labor, and the use of precolonial structures to resist German dominance are at the center. The creation of a model colony are key in chapter 7. Although debates about the future of German Southwest Africa (mining, cattle, agriculture) loomed for some time, imperial visions generally agreed when it came to access (landing structures, railways), water (wells, dams, irrigation), and (African) labor. During this time investments and subsidies in large part thanks to the discovery of diamonds brought more settlers to the colony; available funds also sustained the expansion of animal transfers and the cultivation of plants. A model settler colony for whites formed and with it a German *Südwesterner* (Southwesterner) identity rooted in stories of conquering nature. A conclusion centers such tales; it also explores consequences, legacies, and continuities reaching well beyond Germany's loss of the colony.

Notes

1. Hugo von François, *Nama und Damara: Deutsch Süd-West-Afrika* (Magdeburg, 1896), 272. See also *Deutsches Kolonialblatt*, "Mit Bezug auf die Verwendbarkeit der Dromedare für den Postdienst im deutschen Schutzgebiet von Südwestafrika," 15 October 1892 (François); Richard Trevor Wilson, "The One-Humped Camel in Southern Africa: Imports and Use in South West Africa/ Namibia," *Journal of Camel Practice and Research* 19, no. 1 (Jun., 2012): 1–6.
2. BArch-B, R 1001/8535, Kamele in Deutsch-Südwestafrika.- Beschaffung von Kamelen Feb. 1891-Juli 1899 (Band 1), Kostenüberblick.
3. François, *Nama und Damara*, 272.
4. Ursula Massmann, "Kamele in Südwestafrika," *Namib und Meer* 9 (1981): 31–54.
5. *Daheim: Ein deutsches Familienblatt mit Illustrationen*, "Koloniales," 12 November 1893.
6. Friedrich Ratzel introduced the biogeographical concept of *Lebensraum* (living space) by the turn of the century, a concept floating around in numerous German circles at the time. See Friedrich Ratzel, *Der Lebensraum: Eine biogeographische Studie* (Tübingen, 1901). See also Hans Grimm, *Volk ohne Raum* (Munich, 1926). Historian Heinrich von Treitschke spoke of an "overproduction of humans." See Horst Gründer, *Geschichte der deutschen Kolonien*, 7th ed. (Paderborn, 2018), 27–28 and 43. For scholarly discussion see Hannah Arendt, *The Origins of Totalitarianism* (Orlando, 1976); Patrick Wolfe, "Settler Colonialism and the Elimination of the Native," *Journal of Genocide Research* 8, no. 4 (2006): 387–409; Dominic Schaller and Jürgen Zimmerer, "Settlers, Imperial-

- ism, Genocide: Seeing the Global without Ignoring the Local—Introduction,” *Journal of Genocide Research* 10, no. 2 (2008): 191–99; Dirk A. Moses, ed., *Empire, Colony, Genocide: Conquest, Occupation, and Subaltern Resistance in World History* (New York, 2010); Volker Langbehn and Mohammad Salama, eds., *German Colonialism: Race, the Holocaust, and Postwar Germany* (New York, 2011).
7. Emmanuel Kreike, *Scorched Earth: Environmental Warfare as a Crime against Humanity and Nature* (Princeton, NJ, 2021), 2. See also Emmanuel Kreike, “Architects of Nature: Environmental Infrastructure and the Nature-Culture Trap” (PhD. diss., Wageningen University, 2006), 1–2 and 21–29.
 8. Kreike, *Scorched Earth*, 2.
 9. Kreike, “Architects of Nature,” 2.
 10. Michael Bollig made similar points recently. See Michael Bollig, *Shaping the African Savannah: From Capitalist Frontier to Arid Eden in Namibia* (Cambridge, 2020), 6–9.
 11. Immanuel Kreike, “Environmental and Climate Change in Africa: Global Drought and Local Environmental Infrastructure,” 73–97, here 74–75, in *Environmental Change and African Societies*, ed. Ingo Haltermann and Julia Tischler (Leiden, 2007).
 12. See, for instance, Daniel R. Headrick, *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century* (Oxford, 1981); Clarence B. Davis, Kenneth E. Wilburn, and Ronald E. Robinson, eds., *Railway Imperialism* (New York, 1991). Some of the historiography is also littered with discussions of development and progress, devoid of African voices. See, for instance Udo Kaulich, *Die Geschichte der ehemaligen Kolonie Deutsch-Südwestafrika 1884–1914: eine Gesamtdarstellung* (Frankfurt am Main, 2001).
 13. James C. Scott, *The Art of Not Being Governed: An Anarchist History of Upland Southeast Asia* (New Haven, CT, 2009), 11. On Erschliessung see, for example, Theodor Rehbock, *Deutsch-Südwest-Afrika: Seine wirtschaftliche Erschliessung* (Berlin, 1898); Otto Blum and Erich Giese, *Wie erschliessen wir unsere Kolonien?* (Berlin, 1907); Franz Baltzer, *Die Erschliessung Afrikas durch Eisenbahnen* (Berlin, 1913). See also Sebastian Beese, “Experten der Erschliessung: Die Akteure der deutschen Kolonialtechnik in Afrika und Europa zwischen dem Ende des 19. und der Mitte des 20. Jahrhunderts” (PhD diss., University St. Gallen, 2018), chapter 3.1; Andreas Greiner, “Tensions of Transport: Human Portorage and State Formation in Colonial East Africa, c. 1890–1914” (PhD diss., ETH Zurich, 2019).
 14. Jeffrey Herbst, *Status and Power in Africa* (Princeton, 2000), 58. See also Georg Steinmetz, *The Devil’s Handwriting: Precoloniality and the German Colonial State in Qingdao, Samoa, and Southwest Africa* (Chicago, 2007), 5; Jürgen Zimmerer, *Deutsche Herrschaft über Afrikaner: Staatlicher Machtanspruch und Wirklichkeit im kolonialen Namibia*, 3rd ed. (Münster, 2004), 2 and 16; Birthe Kundrus, *Moderne Imperialisten: Das Kaiserreich im Spiegel seiner Kolonien* (Cologne, 2003), 9 and 290.
 15. Birthe Kundrus, *Moderne Imperialisten*, 53; Steinmetz, *The Devil’s Handwriting*, 22; Zimmerer, *Deutsche Herrschaft über Afrikaner*, 16. For a broader discussion, see Susanne Zantop, *Colonial Fantasies: Conquest, Family, and Nation in Precolonial Germany* (Durham, NC, 1997); Sara Friedrichsmeyer, Sara Lennox, and Susanne Zantop, eds., *The Imperialist Imagination: German Colonialism and Its Legacy* (Ann Arbor, 1999).
 16. Maurus Reinkowski and Gregor Thum, “Helpless Imperialists: Introduction,” in *Helpless Imperialists: Imperial Failure, Fear and Radicalization*, ed. Maurus Reinkow-

- ski and Gregor Thum, 7–20, here 11 (Göttingen, 2013). Helmut Bley and Brigitta Schmidt-Lauber coined the term *abhängige Herren* (dependent gentleman). See Brigitta Schmidt-Lauber, *Die abhängigen Herren: Deutsche Identität in Namibia* (Münster, 1993).
17. David Blackbourn, *The Conquest of Nature: Water, Landscape, and the Making of Modern Germany* (New York, 2006); Richard J. Evans, “Chapter 5: The Conquest of Nature,” in *Pursuit of Power: Europe 1815–1915*, 355–443, (New York, 2016). See also Vittoria Di Palma, *Wasteland: A History* (New Haven, CT, 2014).
 18. Corey Ross, *Ecology and Power in the Age of Empire: Europe and the Transformation of the Tropical World* (Oxford, 2017), 9.
 19. Kundrus, *Moderne Imperialisten*, 141.
 20. Matthias Häussler, *Der Genozid an den Herero: Krieg, Emotion und extreme Gewalt in Deutsch-Südwestafrika* (Weilerswist-Metternich, 2018), 233–34.
 21. In line with historian Ross, “recognizing the complex entwinement of imperial power and environmental change is not to sacrifice the clarity about the enormous scale of transformations that took place, nor about the core responsibility of European states, corporations, and individuals in bringing them about.” Ross, *Ecology and Power in the Age of Empire*, 418.
 22. Bernhard Gissibl, *The Nature of German Imperialism: Conservation and the Politics of Wildlife in Colonial East Africa* (New York, 2016). 11.
 23. Ross, *Ecology and Power in the Age of Empire*, 18.
 24. Christo Botha, “People and the Environment in Colonial Namibia,” *South African Historical Journal* 52 (2005): 170–90, here 170.
 25. Blackbourn, *The Conquest of Nature*; Evans, *Pursuit of Power*.
 26. For the most prominent example see Robert J. Gordon, “Hiding in Full View: The ‘Forgotten’ Bushman Genocides of Namibia,” *Genocide Studies and Prevention* 4, no. 1 (2009): 29–57.
 27. Rita Gudermann, “Conviction and Constraint: Hydraulic Engineers and Agricultural Amelioration Projects in Nineteenth-Century Prussia,” in *Germany’s Nature: Cultural Landscapes and Environmental History*, ed. Thomas Lekan and Thomas Zeller, 33–54, here 33 and 35 (New Brunswick, NJ, 2005). James C. Scott’s *Seeing Like a State* (1998) has been useful in this context although Scott “downplays the role the environment played in challenging their plans.” Heather J. Hoag, *Developing the Rivers of East and West Africa: An Environmental History* (London, 2013), 18.
 28. Lora Wildenthal, *Women for Empire, 1884–1945* (Durham, NC, 2001).
 29. James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven, CT, 1998), 6.
 30. James Fairhead and Melissa Leach, *Misreading African Landscape: Society and Ecology in a Forest-Savanna Mosaic* (Cambridge, 1996), 7; Hoag, *Developing the Rivers of East and West Africa*, 3–4.
 31. Botha, “People and the Environment in Colonial Namibia,” 174.
 32. Frederick Cooper and Ann Laura Stoler, eds., *Tensions of Empire: Colonial Cultures in a Bourgeois World* (Berkeley, CA, 1997), 5.
 33. “The activities of the Protection Force involved both destruction and construction within a wider colonial framework.” Susanne Kuss, *German Colonial Wars and the Context of Military Violence*, translated by Andrew Smith (Cambridge, 2017), 81.

34. Marie Muschalek, *Violence as Usual: Policing and the Colonial State in German South-west Africa* (Ithaca, NY, 2019).
35. Jonas van der Straeten and Ute Hasenöhr, "Connecting the Empire: New Research Perspectives on Infrastructures and the Environment in the (Post)Colonial World," *NTM Zeitschrift für Geschichte der Wissenschaften, Technik und Medizin* 24 (2016): 355–91, here 357.
36. The discussion follows critiques recently laid out in *Ibid.*, 359–60.
37. For a recent discussion of the historiography see Sara Pugach, David Pizzo and Adam A. Blackler, "The Imperial Imagination 20 Years On: The Historiographical Shift toward a Global Germany," 1–40, in *After the Imperialist Imagination: Two Decades of Research and Its Legacies*, ed. Sara Pugach, David Pizzo, and Adam A. Blackler (Oxford, 2020).
38. Bley, *South-West Africa under German Rule*, xvii.
39. Zimmerer, *Deutsche Herrschaft über Afrikaner*, 3. Discussions of colonial warfare are particularly sensitive to environmental circumstances. See Kuss, *German Colonial Wars and the Context of Military Violence*; Isabell Hull, *Absolute Destruction: Military Culture and the Practices of War in Imperial Germany* (Ithaca, NY, 2014). See also Häussler, *Der Genozid an den Herero*.
40. Daniel Steinbach, "Carved out of Nature: Identity and Environment in German Colonial Africa," 47–77, in *Cultivating the Colonies: Colonial States and Their Environmental Legacies*, ed. Christina Folke Ax, Niels Brimnes, Niklas Thode Jensen, and Karen Oslund (Athens, 2011); Botha, "People and the Environment in Colonial Namibia"; Bollig, *Shaping the African Savannah*; Hendrik Snyders, "'Stinky and Smelly—But Profitable': The Cape Guano Trade, c. 1843–1910" (PhD diss, Stellenbosch University, 2011); Felix Schürmann, *Der graue Unterstrom: Walfänger und Küstengesellschaften an den tiefen Stränden Afrikas (1770–1920)* (Frankfurt am Main, 2017); Steven Press, *Blood and Diamonds: Germany's Imperial Ambitions in Africa* (Cambridge, 2021); Antti Erkkilä and Harri Siiskonen, *Forestry in Namibia, 1850–1990* (Joensuu, 1992); Harri Olavi Siiskonen, "The Concept of Climate Improvement: Colonialism and Environment in German South West Africa," *Environment and History* 21, no. 2 (2015): 281–302; Giorgio Miescher, *Namibia's Red Line: The History of a Veterinary and Settlement Border* (New York, 2012); Klemens Wedekind, *Impfe und herrsche: Veterinärmedizinisches Wissen und Herrschaft im kolonialen Namibia 1887–1929* (Göttingen, 2021).
41. Bernhard C. Moore, Stephanie Quinn, William Blakemore Lyon, and Kai F. Herzog, "Balancing the Scales: Re-Centring Labour and Labourers in Namibian History," *Journal of Southern African Studies* 47, no. 1 (2021): 1–16. See also William Blakemore Lyon, "Namibian Labor Empire: Migrant Workers in Colonial South West Africa, 1892–1925" (PhD diss, Humboldt University Berlin, forthcoming).
42. Jürgen Zimmerer and Jürgen Zeller, eds., *Genocide in German South-West Africa: The Colonial War of 1904–1908 and Its Aftermath*, trans. E. J. Neather (London, 2008); David Olusoga and Casper W. Erichsen, *The Kaiser's Holocaust: Germany's Forgotten Genocide* (London, 2010); Jürgen Zimmerer, *Von Windhuk nach Auschwitz? Beitrag zum Verhältnis von Kolonialismus und Holocaust* (Münster, 2011); Philipp Lehmann, "Between Waterberg and Sandveld: An Environmental Perspective on the German–Herero War of 1904," *German History* 32, no. 4 (2014): 533–58; Jonas Kreienbaum,

- “*Ein trauriges Fiasko*”: *Koloniale Konzentrationslager im südlichen Afrika 1900–1908* (Hamburg, 2015); Birthe Kundrus, “Colonialism, Imperialism, National Socialism: How Imperial was the Third Reich?” in *German Colonialism in a Global Age*, ed. Bradley Naranch and Geoff Eley, 330–46 (Durham, NC, 2014); Häußler, *Der Genozid an den Herero*; Daniel Joseph Walther, *Creating Germans Abroad: Cultural Policies and National Identity in Namibia* (Athens, 2002); Adam A. Blackler, “Heathens, ‘Hottentots’, and *Heimat*: Colonial Encounters and German Identity in Southwest Africa, 1842–1915” (PhD diss, University of Minnesota, 2017).
43. Dag Henrichsen, *Herrschaft und Alltag und Alltag im vorkolonialen Zentralnamibia: Das Herero- und Damaraland im 19. Jahrhundert* (Basel, 2011); Kreike, *Environmental Infrastructure in African History*.
 44. Judith Carney and Haripriya Rangan, “Situating African Agency in Environmental History,” *History and Environment* 21, no. 1 (2015): 1–11, here 7.
 45. Lorena Rizzo, *Photography and History in Colonial Southern Africa: Shades of Empire* (New York, 2020), 29.
 46. In this sense, *Environing Empire* engages with “myths and legends, literary narratives and other texts, landscape perceptions, as well as colonial and wildlife photography.” William Beinart and Joann MacGregor, “Introduction,” 1–24, here 5, in *Social History & African Environments*, ed. William Beinart and Joann MacGregor (Athens, 2003). See also Carney and Rangan, “Situating African Agency in Environmental History.”
 47. Lorena Rizzo, “Faszination Landschaft–Landschaftsphotographie in Namibia,” *Basler Afrikabibliographien Working Papers* 1 (2014): 1–15, here 15. See also Wulf Otte, *Weiß und Schwarz–Black and White: Photos aus Deutsch-Südwestafrika/ from Namibia, 1896–1901* (Wendeburg, 2007); Patricia Hayes, Jeremy Silvester, and Wolfram Hartmann, “Photography, History and Memory,” 2–9, in *The Colonising Camera: Photographs in the Making of Namibian History*, eds. Wolfram Hartmann, Jeremy Silvester and Patricia Hayes, 2nd ed. (Cape Town, 2002); Patricia Hayes, Jeremy Silvester, and Wolfram Hartmann, “Picturing the Past’ in Namibia: The Visual Archive and its Energies,” in *Refiguring the Archived*, ed. Carolyn Hamilton et al., 103–34 (Dordrecht, 2002); George Steinmetz and Julia Hell, “The Visual Archive of Colonialism: Germany and Namibia,” *Public Culture* 18, no. 1 (2006): 147–83.
 48. Larissa Förster, “The Concept of Oral History,” in *What the Elders Used to Say: Namibian Perspectives on the Last Decade of Colonial Rule*, ed. Casper W. Erichsen, 63–74, here 65, (Windhoek, 2008), 65. See also Gesine Krüger, “The Golden Age of the Pastoralist: Namibia in the 19th Century,” in Jürgen and Zeller, *Genocide in German South-West Africa*, 3–18, here 4; Ruth Finnegan, “Reflecting Back on ‘Oral Literature in Africa’: Some Reconsiderations after 21 Years,” *South African Journal of African Language* 12, no. 2 (1992): 39–47.
 49. The *Michael Scott Oral History Project*, several collections of interviews, and the *British Blue Book* are examples easily accessible to scholars. For an annotated bibliography, see Förster, “The Concept of Oral History,” 65–47.
 50. These *stories* are widely shared within the German-speaking community in Namibia. According to Werner Hillebrecht, “much of it [settler stories] is trash, colonial novels en masse, only useful for surveys along ideological criticism.” Werner Hillebrecht, “Hdk SWA, oder im Dschungel der Bibliotheken,” in *In Treue fest, Südwest! Eine ideologiekritische Dokumentation von der Eroberung Namibias über die deutsche Fremdherr-*

schaft bis zur Kolonialapologie der Gegenwart, ed. Henning Melber 187–88, here 188 (Bonn, 1984). See also Andree-Jeanne Tötenmeyer, “Die Problematik der Kinder- und Jugendliteratur Namibias: Gestern und heute,” *Afrikanischer Heimatkalender* (Windhoek, 1990), as referenced in Stephan Mühr, “Zur Erzählkultur im deutschsprachigen Namibia,” in *Südwesten Geschichten am Lagerfeuer erzählt von Ernst Rudolf Scherz*, ed. Ernst Rudolf Scherz, 101–9, here 108 (Basel, 2005).

51. On Nama see, for instance, Sigrid Schmidt, *Zaubermärchen in Afrika: Erzählungen der Damara und Nama* (Cologne, 1994); Sigrid Schmidt, *Als die Tiere noch Menschen waren: Urzeit und Trickstergeschichten der Damara und Nama in Namibia* (Cologne, 1995).
52. van der Straeten and Hasenöhr, “Connecting the Empire,” 379.
53. David Ciarlo, *Advertising Empire: Race and Visual Culture in Imperial Germany* (Cambridge, 2011), 4. Zimmerer divides the period along the lines of colonial conquest, genocidal war, and postwar. Zimmerer, *Herrschaft über Afrikaner*, 14. See also Joachim Radkau, *Nature and Power: A Global History of the Environment*, trans. Thomas Dunlap (Cambridge, 2008), 152.