CORAL EMPIRE

Underwater Oceans,
Colonial Tropics, Visual Modernity

ANN ELIAS

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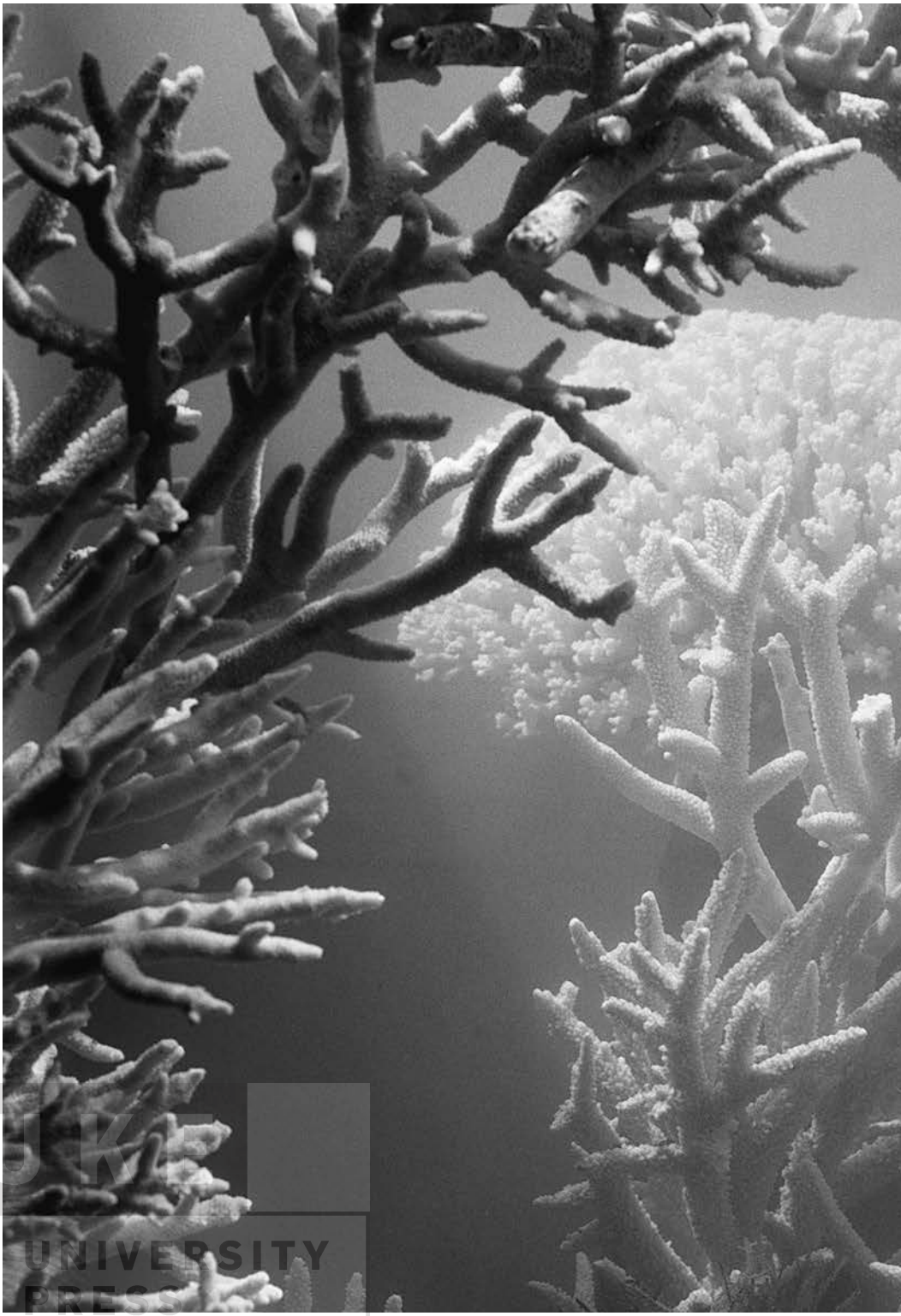

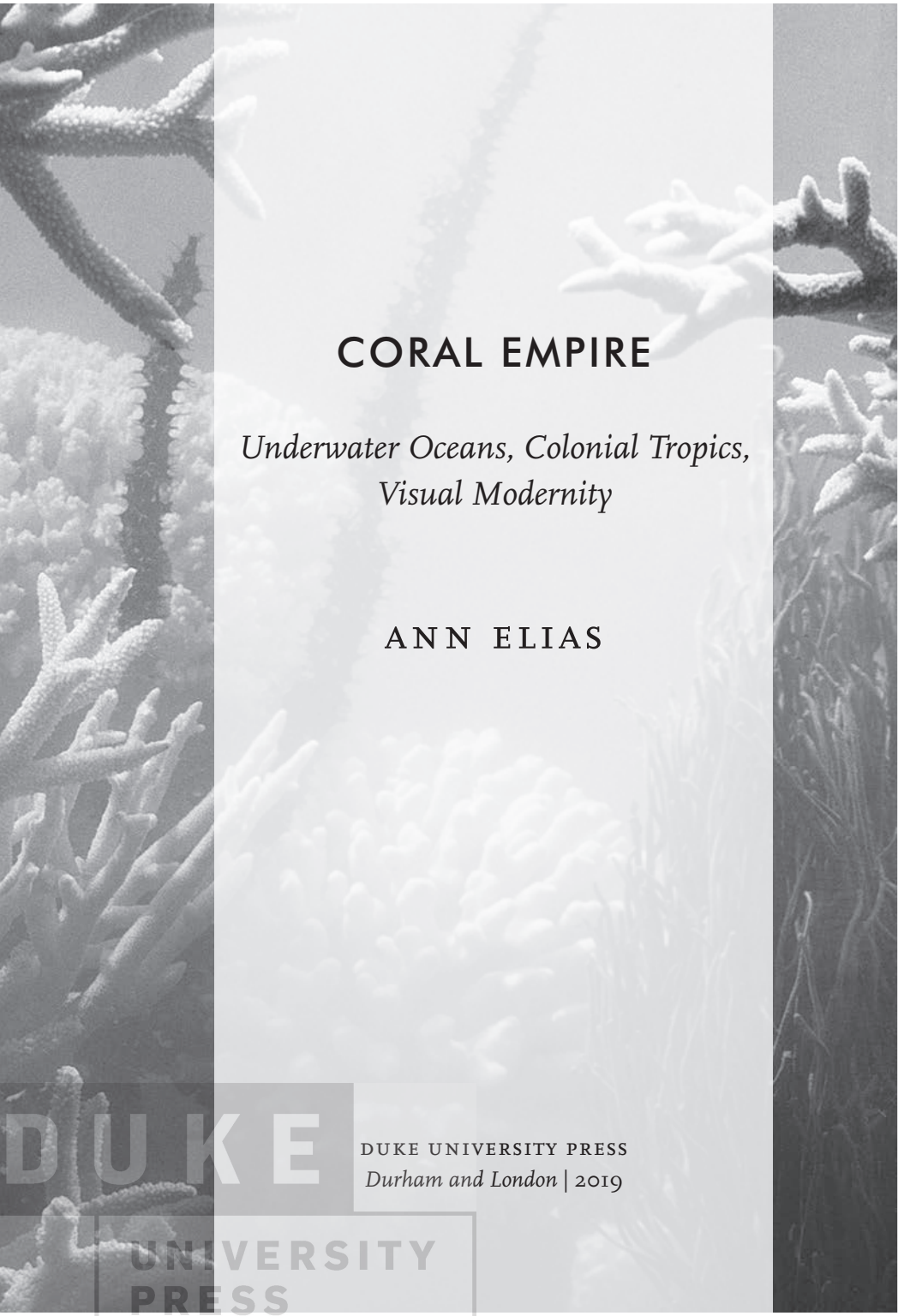

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Cover art: Frank Hurley, "A harmonious group of soft
and stony corals seen through the transparent water," ca. 1950.
From Frank Hurley, *Australia: A Camera Study* (1955), 94.

To Greg, with love

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INTRODUCTION

Over centuries, the coral reef has figured as a mariner's nightmare, a scientific problem, the source of myth, a visual object, a touristic landmark, an Indigenous heritage, and, for explorers, an underwater frontier. This investigation focuses on the emerging compulsion in the early twentieth century to photograph and film coral reefs underwater, to capture still and moving imagery of tropical marine life in the wild, and to present the results to the public as a brand new photographic and cinematic experience. The overarching argument of this study is that by the 1920s, mass media culture, together with new technologies related to cinema, photography, and museum exhibitions, produced coral reefs and the underwater as a modern spectacle. But while the book's argument as a whole is organized around the spectacle of the reef and the underwater, it also foregrounds three themes that recur as points of discussion throughout chapters: the mediation of vision of the underwater and manipulation of truth by modern technologies; the racialization of coral reef environments and subordination of coastal peoples in colonial modernity; and the objectification of marine animals as source of knowledge and entertainment.

Of all the oceanic zones, the underwater is the least discussed region, particularly for the period of most concern to this study, the 1920s, and that decade's wider cultural context, the period from 1890 to 1940. Across that time span, the aura that had long surrounded the underwater—the earth's most mysterious and invisible domain—was

Fig. I.1. William Saville-Kent photographing the Great Barrier Reef.
From W. S. Kent, *Great Barrier Reef of Australia*, 1893, 183.

reignited in three realms of visual culture. In science, there was a push to study fish and undersea plants in their native states with cameras submerged.[1] In avant-garde circles, artists such as Paul Klee, André Kertész, and André Breton found new aesthetic and symbolic meanings in the concept of realities that lie submerged beneath the surfaces of things, especially water. And in the realm of popular culture, where general audiences sought escape from everyday life, photographers and cinematographers sensed that in the underwater lay a profitable new beginning for images and imaginings. In all realms of science, art, and popular culture, the underwater promised an expansion of vision through representations of sights normally unseen.

The underwater, a wild zone at the margins of the modernizing world, was the newest possible viewpoint on the planet and promised filmmakers and photographers of the early twentieth century a rebirth of visual culture that would put their careers at the center of a modern triumph. There was a perception around 1910 that planetary space was shrinking, wilderness diminishing, and adventures for explorers dwindling. But . . . there still remained the ocean, and the ocean's underwater. Westerners,

who were outsiders to the undersea, perceived it as a blank space, an uninhabited space, an unlived space belonging to no one and nothing. They saw it as something waiting to be filled. The idea of penetrating that tabula rasa with cameras was irresistible.

Coral Empire explores Western visual culture in the early twentieth century in relation to the urge to make history by photographing and filming the underwater, and it does this by investigating two very specific geographical locations: the Bahamas in the Atlantic, and the Australian Great Barrier Reef in the Pacific. The narrative structure of the book is based on the stories of two men who were filmmakers, photographers, and explorers of renown. They almost certainly never met, but in the 1920s, in the name of science, popular culture, and exploration, their aim was to leave their mark on the world by the visual conquest of the tropical underwater. *Coral Empire* is about the striving, the longing, the solutions, and the failures of these men in meeting their objectives.

At the Bahamas and the Tropic of Cancer was John Ernest Williamson (1881–1966), known variously as "Jack Williamson," "Ernie," "J. E.," and "J. E. Williamson," who photographed in a marine paradise of transparent water and white sand in a country of scattered islands and cays where the undersea, at its best, was, as he put it, a realm "of marvelous things, all set in the palest of sapphire mists."[2] At the Tropic of Capricorn was James Francis Hurley (1885–1962), known as "Frank Hurley" and "Captain Frank Hurley," working in the region of the Great Barrier Reef, a place known as a miracle of nature and the world's largest and most beautiful underwater coral realm, with a reach extending from the Coral Sea off the coast of Queensland through the island chains of the Torres Strait into the Gulf of Papua.[3] The tropical water surrounding the coral reefs of the Australian region was sometimes so clear and so like crystal that Hurley described it as "liquid glass."[4]

By the 1920s, the coral reef had become a space of imagination in a different way. Stefan Helmreich explains the difference as a shift from perceiving reefs as structures and architecture to appreciating them as voluptuous environments. In the 1920s, it was the living environment of reefs that people sought; Helmreich describes it as a desire "to submerge their bodies and eyes in the midst of" living corals.[5] This is also what Hurley and Williamson sought. The prized object for their photography was the sea floor. The prospect of photographing and filming coral reefs and submarine life eye to eye symbolized their modernity and brought their

project close to their hero, Jules Verne (1828–1905). It was Verne who gave Hurley and Williamson a consciousness of the sea as an alien outpost of the world, and one awaiting discovery, and Verne who attracted so many filmmakers to the underwater.[6] It was also the impact of Jules Verne on Western perceptions of the undersea that explains why both Williamson and Hurley were referred to in their lifetimes as "Captain Nemo."

But Hurley and Williamson were not the first to want to explore the seafloor or the underwater at coral reefs, nor the first to try to capture those sights photographically. Throughout the nineteenth century, photographers had longed to do this, including the British scientist William Saville-Kent (1845–1908). It was relatively straightforward to take a viewpoint of a coral reef by looking down at it, vertically, as seen in figure I.1, a photograph of Saville-Kent at work in the 1890s, recording marine life at the Great Barrier Reef of Australia. But the limitations for visualizing the underwater are obvious. The viewpoint is distancing and abstracting. Imagine a fish photographed from above emerging in the image as a vague shape without face or eyes or sense of presence to the viewer. Only from a viewpoint underwater could people also understand the sea from within it rather than from outside it. That is why the shift from land and air camera viewpoints to perspectives beneath the surface of the water changed the course of history. It altered science, influenced tourism, broadened popular knowledge, and eventually, in the late twentieth century, helped bring about greater ecological understanding of the lives of marine animals and plants and established traditional peoples' custodianship of seabeds in public consciousness.

By 1910, only a handful of people, mostly scientists, had managed to photograph the underwater and obtain images, among them the French zoologist Louis Boutan (1859–1934).[7] The attempts these men made at underwater photography were groundbreaking. But Hurley and Williamson wanted something more. Their ambition was to supply an international public with startling visions of the tropics that the public had previously sought through literature and stories. The medium of film, moving and still, suited them perfectly. It promised literal realism but was easily fictionalized and manipulated.

As the following chapters reveal, Hurley and Williamson benefited from the belief system that "seeing is believing." In their ambitions to turn the seafloor and the underwater into entertaining spectacles, they bent the truth. Consequently, *Coral Empire* argues that in relation to the

developing culture of spectacle created by mass media, the virtual world of cinema, and the global circulation of photographic reproductions, Hurley and Williamson were producers of a culture of the copy in which it was increasingly difficult to distinguish reality from truth. Yet they marketed their work on claims of authenticity and realism. In the hyperreal world of visual media in which they operated, photographic images were frequently detached from original contexts, geographies were often misrepresented with inaccurate captions, and deceptions were commonly practiced but concealed in the interests of entertaining documentaries about the real, but mysterious, natural world. The problem of "reality"; the "authenticity" of places, people, and events; and the collapse of borders between reality and fiction, emerges, then, as a key consideration in the lives and works of Frank Hurley and J. E. Williamson.

In fact, this book's very conception was a response to the curious circumstances surrounding the authenticity of an underwater photograph of a coral reef. The image in question is reproduced in *Mad Love* (*L'Amour fou*), a book published in 1937 by André Breton (1896–1966), the leader of the surrealists. Below the image a caption reads, "The Treasure Bridge of the Australian Great Barrier," and attributes the image to the *New York Times*. The photograph is conspicuous because the number of images of the Great Barrier Reef taken underwater and published in the 1930s was drastically few.[8] In the process of researching the image, I discovered that the photographer was J. E. Williamson, and the photograph was a picture of the Bahamas underwater, not the Australian Great Barrier. From there, *Coral Empire* became an inquiry into commonalities and overlaps in the histories of how photography and film made the coral reefs and the underwater of the Bahamas and the Great Barrier Reef modern marvels. The book also became a study of what happens to the meaning of an image when a photograph circulating in mass media is removed from its original context and placed in a new one.

In the context of the history of early cinema, Hurley and Williamson worked between two paradigms: the era when performers or showmen used short films as props for theatrical acts in which lectures and lantern slides were also integrated, and the era of feature films.[9] Their audiences were general, but also from the fields of science and exploration. Both men toured the United States, Britain, Australia, and Canada speaking and showing films and lantern slides of coral reefs, native peoples, and the tropics in public venues such as the Smithsonian Institute, Carnegie

Hall, the Field Museum, and the American Natural History Museum. They employed agents to market their films, organize lecture circuits, and promote their work. They were image hunters. The way they approached the sea and the underwater was perfectly characterized by Susan Sontag, who explained the psychology behind the increasing impact of photography on modern life as "that mentality which looks at the world as a set of potential photographs."[10]

The act of diving features in all the stories told here. Williamson was a practiced suit-and-helmet diver; Hurley claimed to be practiced at diving, but the proof is hard to find. Regardless of their ability to dive underwater with suits or without, there was little or no capacity in the early 1920s to work with cameras and the body immersed in the underwater, even for short periods of time. How they got around that problem is eccentric and intriguing. It makes their stories absorbing. It is also the source of a key argument threaded through this study: that the way Hurley and Williamson conceptualized the undersea and visualized marine animals was mediated by the artificial underwater environments of aquariums. The aquarium is an optical device invented for viewing the underwater and its creatures in the safe, dry space of land and air. It emerged as a popular form of public and private amusement in the nineteenth century. Aquariums magnify the view beyond and produce the illusion of closeness to the underwater but maintain a rigid separation between human and nonhuman life. The implications of aquarium thinking in relation to J. E. Williamson have recently been elaborated by Jonathan C. Crylen. In "The Cinematic Aquarium: A History of Undersea Film" (2015) Crylen concentrates on how J. E. Williamson conceived of the sea as an aquarium, and offers the insight that cinematic vision of the underwater was indebted to discourse around this technology.[11] As I show, Hurley and Williamson both imagined the ocean as a vast aquarium, and also as a gigantic optical device for the projection of light effects. Hurley, for example, noticed how water sent beams of light through the liquid medium in a way that recalled how rays of light are projected through the thick air of a movie theater.[12]

Coral Empire reflects a shift in scholarship from land to sea. Steve Mentz and Martha Elena Rojas name this cultural turn "an ocean-inflected 'blue humanities'" in honor of "the largest and most alien spaces on our blue planet."[13] Scholars are paying more attention to the importance of ocean environments and the underwater to cultural, literary, technological, scientific, and environmental histories. Margaret Cohen, in "Underwater Op-

tics as Symbolic Form," looks at early twentieth-century representations of the undersea and concentrates on a time in European history when the submarine realm was conceived as a new planetary space. She argues that one condition of modernity was the way "technologies enable new modes of perception, which transform the imagination and inspire the arts. A vivid example of this process is the transvaluation of the underwater environment in the Western imaginary."[14] But, as Cohen also explains, visualizations of the underwater were persistently constructed in the modern period through old conventions of linear perspective that contradicted the nature of subaquatic optics in which colors and forms behave very differently than those of land and air. What, she asks, did representations of the underwater world at that time reveal to the general public about submarine reality?

Coral Empire takes up the challenge of investigating early twentieth-century visual representations of the underwater realm and their public reception in the West. As a history of visual culture relating to coral reefs at the Bahamas and the Australian Great Barrier Reef—two outposts of the British Empire—the book is also a study of the type of imagery that Paul Gilroy terms "imperial phantasmagoria"—dazzling and symbolic artifacts that include illustrated magazines, magic lantern slides, dioramas, aquariums, travelogues, and wildlife films, all informed by and consumed amid social, cultural, and political circumstances relating to empire.[15] When the "Age of Empire" drew to a close at the time of the First World War, as E. J. Hobsbawm claims, it had created an immense visual record of its work in the form of advertising, illustrated periodicals, and still and moving images that gave those at home some insight into the remote, the unseen, and the imagined world "out there" in the colonies.[16]

To anyone who was British-descended and white, the coral islands, reefs, and waterways of the Bahamas and Australia in the 1920s were known as the empire's "possessions." The "Edenic isles set in sparkling seas"—as David Arnold described Western ideals of the tropics—generated much imperial self-satisfaction.[17] With these exotic seas and islands in its possession, the British Empire was also a "coral empire" in which the figure of the coral reef became a suggestive symbol of expansionism. It gave the empire a framework for understanding itself. Symbolically, the reef, with its busy, colonizing "workers" and expanding territory, came to define the imperial project, and in that scenario the body of the reef was imaginatively mapped onto the figurative body of Britain.

But not everyone found the acquisition of coral islands a positive direction for the expansion of empire, seeing instead the accumulation of useless lands and peoples, and dangerous environments.[18] The problem of "systematic race-thinking" is something Paul Gilroy puts down to the way "truths" about race have been constructed through Western knowledge and power.[19] Without doubt, the beauty of coral islands and their cultural desirability stand in stark contrast to the uglier realities of colonialism and racism that mark the histories of the tropics. At the center of British colonial influence in the Bahamas and the Great Barrier Reef were groups of maritime peoples—descendants of Africans, people indigenous to coral islands, and descendants of Pacific Island peoples. Today some call themselves "black," others "Indigenous," and others by the name of the islands they live on, such as Torres Strait Islander.[20] In the Bahamas, they were connected to Britain through colonization in the eighteenth century, and throughout the history of slavery. The peoples of the Pacific who are discussed here, however, were colonized by the British Empire but became subjects of Australian colonial administration. The social principles were global: mobile, white explorers and adventurers benefited from knowledge of the sea acquired from maritime peoples, especially skilled divers known ubiquitously by the colonial term "native divers," whose knowledge was passed down over generations but who were treated as a servant class employed to further European knowledge and progress, and were never properly acknowledged. Many of the images in this book show how black and Indigenous peoples were either pushed to the background or turned into spectacles by Frank Hurley and J. E. Williamson.

What kind of people, and colonials, were Hurley and Williamson? What has been said about Hurley by A. F. Pike also applies to Williamson: these men were self-styled loners "who braved danger in exotic areas to provide romance and adventure for armchair travellers" of the tropical colonies of the British Empire.[21] Typical codes of masculinity in the period meant Hurley and Williamson both wore paramilitary khaki and tropical whites, valorized "bravery, fearlessness, physical fitness and strength," and admired a man's aptitude for technology and engineering.[22] They were the type of explorer that Felix Driver called "the foot-soldier of geography's empire."[23] They were dedicated to expanding the reach of the Western world into territories they imagined it was their right to take.

Both men were born in the late nineteenth century, when oceans were portrayed in literature as mutable forces: sometimes motherly, beautiful,

and gentle, and other times the embodiment of evil. Williamson, for example, was consumed by what he saw as the ugliness of sharks, and devoted years of his life to filming the horror. In fact, animals, dead and alive, in aquariums and dioramas, in natural history museums and in the field, in photographs and on film, are central to this story of underwater exploration and representation of tropical coral reefs. Consequently, the question of "the animal" emerges in *Coral Empire* as a central point of discussion. Fish in tropical waters, for example, were by turns objects of beauty, curiosities, problems, and adversaries. To further knowledge of the natural history of the sea and its animals, Hurley and Williamson worked closely with some of the Western world's most prominent museums. But their work often involved destruction of the natural environment. While the animal as camera subject was vital to underwater filming and photography, the animal was often a victim. The stories of Hurley and Williamson expose how the desire to look at animals, to hunt with cameras, and to consume the exotic world through photographic reproductions and cinematic projections embodied symbolic as well as physical violence.

In addition to archives comprising letters, papers, films, photographs, and newspaper articles, a wide range of literature has informed this study. Some authors have been cited already, but special mention should be made of others. In more than one publication, but in particular *Photography, Early Cinema, and Colonial Modernity: Frank Hurley's Synchronized Lecture Entertainments* (2013), Robert Dixon explores in detail how Frank Hurley was shaped by modern times and by colonialism, and elaborates on Hurley's central place in the spectacle of empire. Krista A. Thompson puts J. E. Williamson in social and cultural context in *An Eye for the Tropics: Tourism, Photography, and Framing the Caribbean Picturesque* (2006), in which she explains the segregated racial environment of the colonial Bahamas where Williamson's identity was shaped. In *The Reef: A Passionate History* (2013), Iain McCalman devotes an entire study to the power of corals at the Great Barrier, covering the periods from the "discovery" by captain James Cook to environmental activism to stop the destructive impact of mining and industry in the late twentieth century.[24] In the expanding literature on oceans and the underwater, Natascha Adamowsky, in *The Mysterious Science of the Sea, 1775–1943* (2015), explains how the frontier status of the underwater in the modern period was informed by aesthetic wonder as well as science. Margaret Cohen, in *The Novel and the Sea* (2010), details the significance of the sea to international literary history. And Helen M.

Rozwadowski, in *Fathoming the Ocean: The Discovery and Exploration of the Deep Sea* (2005), unlocks the history of ocean explorers and the development of technologies for acquiring knowledge about the deep.[25]

The question of cinema, photography, and the animal is explored by Jonathan Burt in *Animals in Film* (2002), in which he demonstrates the symbiotic relationship between the development of film technology and the animal as object of study.[26] The animal is also addressed by John Miller in *Empire and the Animal Body: Violence, Identity, and Ecology in Victorian Adventure Fiction* (2014), in which Miller fleshes out the animal's relations to empire and colonialism and the racialized borders between human and animal.[27] And Carrie Rohman, in *Stalking the Subject: Modernism and the Animal* (2009), offers insight into the anxieties and their consequences evoked by Charles Darwin's theory that there is no border between human and animal.[28] There are very few texts on early cinema and the underwater, but, in addition to Crylen's aforementioned thesis, Nicole Starosielski's "Beyond Fluidity: A Cultural History of Cinema under Water" (2013) identifies three phases of underwater filmmaking. Her conclusions about the first phase of filmmaking from 1914 to 1930 correspond with the findings of this investigation, namely that in this period the seafloor was an object of desire, and the underwater a place conceived by whites as the space of the racial Other who was also imagined as part of the fauna and flora.[29]

Part I of *Coral Empire*, "The Coral Uncanny," begins with a chapter that looks at the significance of coral reefs to modern visual culture and how the popular imagination of the coral reef was created. Chapter 1 is where the book's title, *Coral Empire*, is given context, and it explains how coral reefs became privileged objects of the Western imaginary. It is followed in chapter 2 by an account of how the image of the coral reef is taken up in the 1920s and 1930s by the European avant-garde, concentrating on the example of André Breton and drawing connections between surrealism, underwater space, and coral reefs. I have already mentioned the underwater photograph of a reef reproduced in 1937 by André Breton in *Mad Love* captioned "The Treasure Bridge of the Australian Great Barrier"—it serves as a point of entry to the history of underwater photography and cinema and their public reception, to the stories of Frank Hurley and J. E. Williamson, and to why *Coral Empire* looks at the Bahamas and the Great Barrier Reef as a single study.

Providing the biographical and professional background of J. E. Williamson is the purpose of part II, in which the chapters focus on work he

undertook in the 1920s when hunting, capturing, and filming marine animals and corals for dioramas destined for the American Museum of Natural History in New York and the Field Museum in Chicago. Chapter 6 of this section provides a critical link to Frank Hurley, who then becomes the subject of part III. This section on Hurley concentrates on two scientific expeditions: the first to the Great Barrier Reef, the Torres Strait, and Papua in 1921; the second to the same region during a collaboration in 1922 with the Australian Museum, Sydney. From these expeditions, Hurley produced *Pearls and Savages* (1921, with a later iteration in 1923), a film for general audiences, notable for scenes of coral reefs that are almost certainly the first film footage of the Great Barrier Reef depicted for an international public.

Following individualized studies of Hurley and Williamson, parts IV and V investigate commonalities and connections between them. One chapter scrutinizes them in relation to explorers, the Explorers Club in New York, and Carl Akeley (1864–1926), celebrated curator of the American Museum. The chapter that follows then assesses Hurley's and Williamson's status and engagement with the underwater in the 1950s during a technological paradigm shift toward mobility and the immersion of photographers in the underwater after the commercialization of tropical destinations saw an explosion of tourism.[30] The chapters end with Part V, in which Hurley and Williamson are considered in the context of the Anthropocene and the acceleration of anthropogenic impact on the planet's coral reefs. This section is informed by wide recognition of the extensive and often irreparable damage from global warming to the world's reefs, particularly the Great Barrier Reef and the reefs of the Bahamas.[31]

Coral Empire is a study of a period before, but yoked to, the planetary challenges faced by the contemporary ecological crisis and by the continued impact of colonial modernity on the island peoples of the Bahamas and Australia. Indeed, issues of environmental damage and racism addressed in this investigation are intertwined in a way that relates directly to Ghassan Hage's argument that ecological struggles and racial struggles unfold together in history: they are fundamentally linked through a Western disposition to dominate and exploit the Other.[32] The ugly reality of racism, as it relates to the stories told here, is manifest in the way black and Indigenous peoples were exploited through labor and characterized as inferior and sometimes as subhuman. Related to human exploitation was environmental exploitation that resulted in unsustainable quantities

of shells, pearls, sponges, corals, and fish extracted from the Bahamas and the Great Barrier Reef. However, following the period addressed in this book there occurred unprecedented development of coral reef environments, not only through extraction industries and mining but also through tourism and the profitable spectacle that coral reef environments promised. It was tourism that made coral reefs the most fetishized spaces of the oceanic environment, portraying them as outside civilization, as untouched by human culture, and as the most colorful stages imaginable for human players. Eventually, environmental impact would transform the reefs of the Bahamas and the Great Barrier from wondrous to endangered, and in many places from ecologies of vibrant color to what Jeffrey J. Cohen terms the "inhuman" color gray.[33] In an age of mass bleaching, the world reads the grayness of bleached coral as the melancholic sign of a dying planet. But in the modern period, before reefs turned gray, photographers and filmmakers, as well as museum designers, brought delight to audiences who would never experience a coral reef themselves by allowing them to escape to the tropics through the immersive effects of photography and cinema, and the cinematic effects of life-size coral reef dioramas.

NOTES

INTRODUCTION

1. In 1915, the idea of photographing underwater for science was newsworthy and novel and was reported in the papers in Australia, including the State of Victoria. See "Submarine Photography," *Euroa Gazette*, supplement, September 28, 1915, 2, accessed February 10, 2018, http://nla.gov.au/nla.news-article153575997.
2. "How Undersea Pictures Are Made," *Table Talk*, June 4, 1925, 50. *Table Talk* was a weekly magazine published in Melbourne, Australia, between 1885 and 1939.
3. Where the Great Barrier Reef begins, and ends, varies according to writers and eras. In the era covered by this book, and in the early 1950s, it was known as the reef that "stretches for roughly 1200 miles from Papua to just south of the Tropic of Capricorn." See "Barrier Reef Films," *Morning Bulletin* (Rockhampton, Queensland), February 15, 1951, 6. When in Papua, for example, Frank Hurley referred to the reefs of the region as "The Great Barrier."
4. Frank Hurley, Tuesday, January 12, 1921, 93, in "A Private Diary, Capt. Frank Hurley. c/-Kodak. Australasia," diary, October 2, 1920–February 1, 1921, series 1, item 7, Papers of Frank Hurley, MS883, National Library of Australia, Canberra, Australia.
5. Helmreich, *Sounding the Limits of Life*, 52.
6. For a study of Jules Verne and cinema, see Taves, *Hollywood Presents Jules Verne*.
7. Chapter 2 addresses early photographers of the underwater and includes discussion of a pioneer of underwater photography, Louis Boutan.
8. See Pocock, "Entwined Histories," 191–92.
9. For expansion on these two forms of cinema, see Altman, "Lecturer's," 61–79.
10. Sontag, *On Photography*, 7.
11. Crylen, "Cinematic Aquarium," 11. Aquarium thinking is also discussed in Eigen, "On the Screen," 229–51; Eigen, "Dark Space," 90–111; and Brunner, *Ocean at Home*.
12. Frank Hurley, "Beneath the Waves Strange Grotesque Life; Forest of Amazing Foliage," *Sun* (Sydney, New South Wales), November 11, 1921, 9.
13. Mentz and Rojas, "Introduction," 1.

14. M. Cohen, "Underwater Optics," 1.
15. "Imperial phantasmagoria" is from Gilroy, *Against Race*, 139–40.
16. Hobsbawm, *Age of Empire*, 8.
17. Arnold, *Problem of Nature*, 142.
18. See "Pacific Islands Added to the Empire: More 'Lumps of Coral,'" *Advertiser* (Adelaide, South Australia), November 16, 1915, 7.
19. Gilroy, *Against Race*, 55.
20. In a chapter titled "Configurations of Blackness" Toni Morrison refers to the reductive way people are characterized by color. The color distinctions "white" and "black" occur frequently in the historical and contemporary literature that informs this book, along with "Indigenous" and "Islander." More specific terms are "African-Bahamian," "Torres Strait Islander," and "Papuan." See Morrison, *Origin of Others*, 55–74.
21. Pike, "Hurley, James Francis."
22. Crotty, *Making the Australian Male*, 229.
23. Driver, *Geography Militant*, 3.
24. McCalman, *Reef*.
25. Adamowsky, *Mysterious Science of the Sea*; M. Cohen, *Novel and Sea*; Rozwadowski, *Fathoming the Ocean*.
26. Burt, *Animals in Film*.
27. Miller, *Empire and the Animal Body*.
28. Rohman, *Stalking the Subject*.
29. Starosielski, "Beyond Fluidity," 152. The second and third phases embrace the 1950s, when underwater mobility expanded dramatically with undersea technologies designed by Émile Gagnan (1900–1979) and the underwater became better known to general audiences through the adventures and filmmaking of Jacques-Yves Cousteau (1910–1997), and then from the 1960s, when underwater filmmaking is distinguished by environmental issues.
30. This is explained, for example, by Pocock, "Entwined Histories."
31. Hughes et al., "Coral Reefs in the Anthropocene," 82.
32. Hage, *Is Racism an Environmental Threat?*
33. The "inhuman" color of gray is discussed in relation to the environment by Jeffrey Cohen in J. Cohen, "Grey," 270.

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1. E. H. G., "'Shadow-Catching Engines': A Picture Sorcerer in Papua: 'Pearls and Savages' by Captain Frank Hurley," *Illustrated London News*, October 4, 1924, 626.
2. Beebe, *Beneath Tropic Seas*, 6.
3. "The Great Barrier Reef," *Queensland Times* (Brisbane), April 6, 1875, 4.
4. Cook cited in McCalman, "Turtle War," 7.
5. Bennett, *Vibrant Matter*, viii.