

poised to reclaim his inheritance on the far shore of the Red Sea.

This time religion was the pretext. The Aksumite kings had converted to Christianity during the fourth century. Around the same time, in one of history's more unexpected conversions, the Himyarites of south-west Arabia adopted Judaism as their official state religion. In 523, the Jewish King of Himyar, a certain Yusuf, launched a series of pogroms against the Christian communities of south Arabia. These persecutions sent shockwaves across Christendom: the Byzantine Emperor, Justin I, begged Kaleb "to go forth, by land or sea, against the abominable and criminal Jew".

As Bowersock shows, the two Adulis inscriptions, with their stirring narratives of long-distant African conquests across the sea, gave Kaleb all the precedents that he needed for his crusade against the Himyarites. It is even possible that Kaleb made a still more potent claim to the kingship of south-west Arabia. The Aksumite Christians saw themselves as the distant descendants of Solomon and the Queen of Sheba. The biblical kingdom of Sheba was located in southern Arabia, and so Kaleb may well have seen his war against Himyar as a reconquest of the traditional Ethiopian homeland.

The Aksumite invasion of Himyar was a triumph. In the summer of 525, 120,000 men assembled at Adulis for a huge seaborne invasion of Arabia. Yusuf was killed, and a Christian Aksumite client king installed in his place. No less important, Kaleb's crusade led to a short-lived alliance between the two Christian empires of the East, Orthodox Byzantium and Monophysite Aksum. Yusuf had enjoyed the protection of the other great imperial power of the late antique Near East, the Sasanian Persians of western Iran. The new Byzantine emperor, Justinian I (527–565), hence had good reason to be thrilled at the prospect of a friendly Aksumite client state in south Arabia. For a fleeting moment, a united crescent of Christian allies stretched from Armenia in the north to Yemen and Ethiopia in the south.

The story is a gripping one, and Bowersock has brilliantly illuminated the clash of two monotheisms in south Arabia in the early sixth century. Yet despite his heroic efforts, the last piece in this jigsaw remains missing. The Ethiopians were finally expelled from the Arabian peninsula by the Sasanian Persians in around 570. At this point, all our sources fail us, and for a crucial half century the deserts of western Arabia are engulfed in darkness. Uncharacteristically, Bowersock resorts to metaphor to bridge the gap:

The dissolution of the nexus that bound Ethiopia to Arabia created a volatile situation, for which a reckoning of some kind was bound to follow... Without strong kings in Ethiopia and Himyar the international arena was left to the struggle between Byzantium and Persia. Yet in the very midst of this arena the embers of the old conflagration between Jews and Christians, which had been ignited by the Jews in Arabia and fanned by the Ethiopians who attacked them, were still burning. Out of these embers a new religion was born.

The very vagueness of the language ("embers of the old conflagration") reminds us quite how little we still know about those years when, amid a great stillness, the forty-year-old Muhammad knelt in a cave on the Mountain of Light, and heard a voice as clear as the ringing of a bell.



Eyes burned out

DAVID ARMITAGE

David Iglar

THE GREAT OCEAN

Pacific worlds from Captain Cook to the Gold Rush

255pp. Oxford University Press. £18.99

(US \$29.95)

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Gregory T. Cushman

GUANO AND THE OPENING OF THE PACIFIC WORLD

A global ecological history
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The Pacific has long been the hole at the heart of world history. For two centuries, global historians from the First World have hardly known what to make of the "fifth part of the world". There's just "so much ocean, too many islands", the late Australian historian Greg Denning lamented ironically: over 25,000 islands in an ocean covering more than a third of the Earth's surface and spanning from the Arctic to the Antarctic and from Southeast Asia to Central America. In the ages of paddle and sail, steam and propeller, every traveller could feel the connections between land and sea, the continents and the islands. The jet age seemingly rendered the Pacific Basin a kind of intellectual flyover territory – "the earth's empty quarter" – for outsiders to Oceania and Australasia. The upshot, as the i-Kiritabi scholar Teresa Teaiwa noted in 2002, was that "the dialogue between studies of humanity and studies of the Pacific" broke down. Only lately has the conversation resumed among historians. It now includes fish, mammals and birds. It takes place amid metaphorical mountains of fur, blubber and faeces. And it has lessons, even warnings, for the rest of the world.

The Pacific is at once a latecomer and a forgotten ancestor amid a host of newly emergent oceanic histories. Ever since Fernand Braudel conceived of the Mediterranean and its shores as a "world" in *La Méditerranée et le monde méditerranéen à l'époque de Philippe II* (1949), his successors have sought new worlds in other maritime arenas, large and small. There are now histories of the Baltic world and the Caribbean world, the "Red Sea world" and the "Black Sea world", inspired by studies of the Mediterranean, the Indian Ocean and especially of the Atlantic. Atlantic history has been the most entrepreneurial of these fields. Its spectacular rise in the past generation exposed a certain resistance by historians of the Pacific to the geographical holism and somewhat whiggish narratives – from "discovery" via exploitation and enslavement to emancipation and independence – that characterized histories of the world's second largest ocean. Only

recently have pan-Pacific histories, covering the entire basin and all its peoples, begun to appear.

Historians in the Pacific have been writing their own accounts of the peoples of Polynesia, Melanesia and Micronesia for over fifty years. Much of that work anticipated other oceanic histories in focusing on links between sea and land, in treating indigenous and settler peoples within the same frame, and in upsetting conventional notions of temporality and territoriality. The work of Islander historians rarely intersected with that of students of the Asia-Pacific (a field driven by economic history in the wake of the Japanese miracle of the 1980s) or those who studied the American West as the Pacific-facing aspect of US history. All three groups called themselves Pacific historians, but they imagined different populations within distinct boundaries. Intellectual divisions of labour worked against Pacific histories written from an albatross's (let alone a whale's) eye-view. The Pacific remained mostly invisible to outsiders, just as it was incomprehensible from maps centred along the Greenwich Meridian rather than the International Date Line.

David Iglar's *The Great Ocean* and Gregory T. Cushman's *Guano and the Opening of the Pacific World* are some of the first waves of a gathering tsunami of scholarship on the Pacific

world. "Whole libraries have been written about the Atlantic World," Cushman notes, "but readers will be hard pressed to find a single historical monograph with 'Pacific World' in its title." Iglar argues similarly that "the ocean world concept appears ripe for the Pacific, particularly because of its increasing interconnectedness with the Atlantic and Indian Oceans". They each describe processes developing along the eastern continental edge of the Pacific, stretching outwards into Oceania and unfolding over the *longue durée*. *The Great Ocean* runs from Alaska and Hawaii to Peru and concludes at a highpoint of integration in the mid-nineteenth century, when Ishmael in *Moby-Dick* (1851) hymned "the mysterious, divine Pacific" as "the tide-beating heart of earth". *Guano and the Opening of the Pacific World* carries the story forward from this Melvillean moment to the near-present, and southward to Peru and Chile. Neither book encompasses the entire Pacific basin, but both demonstrate the centrality of the Pacific not just to the world, but also to world history.

In *The Birth of the Modern World, 1780–1914* (2004), C. A. Bayly described the long nineteenth century as an age of increasing uniformity between nations and deepening diversity within them. Even Bayly's globe-spanning tour de force spared little space for the Pacific, but Iglar and Cushman confirm the strength of his thesis. Iglar shows how greater commercial integration in the eastern Pacific shattered indigenous communities. Likewise, Cushman argues that the exploitation of guano bound the Pacific more tightly into transoceanic, and ultimately global, circuits of labour, resource extraction and capitalist enterprise. These links brought political instability and natural disaster to Peru, the Gilbert Islands, Nauru and other points around the Pacific. The damage to their local economies and ecologies will last long into the future. Seen from the Pacific, then, the birth of the modern world appears particularly violent and disruptive, the very inverse of the myths of island innocence peddled by Europeans in the mid eighteenth

century before “modernity” had been ushered in.

The Great Ocean calculates the high price of proto-globalization in the Pacific. Each chapter begins with a well-turned vignette from a Pacific voyage and then treats a major theme: commerce, disease and sex, captivity, the hunting of animals, the exploits of naturalists, and the quest for the geological unity of the Pacific. Iglar’s topical approach can make the chronology of Pacific history hard to follow, but the pivotal periods are tolerably clear: the 1780s, the years after 1812, and the 1840s. The first two sprang from events in the Atlantic world. American independence freed former British colonists from the East India Company’s monopoly and opened Canton, the gateway to China, to American merchants for the first time. Three decades later, Napoleon’s invasion of Spain triggered an Atlantic crisis in the Spanish Empire that opened new ports to all comers on the coast of South America.

Spanish galleons had carried Mexican silver from Acapulco to Manila to feed the Chinese market since the 1570s, and they limped on until after independence. The explosion of free trade further fuelled the great Chinese engine for Pacific luxuries like sea-slugs, sandalwood and the “soft gold” of sea-otter skins. Russian traders joined Britons and Americans in scouting for furs from Okhotsk to Baja California; the Northwest coast of North America rapidly became “a resource-rich suburb of Boston” (and Salem); and Hawaii developed into a “Great Exchange” for trans-oceanic commerce. The stage was set for the migratory explosion that erupted on news of the gold strike at Sutter’s Mill, California, in 1848. The slightly later gold rushes in New South Wales and Victoria lie beyond Iglar’s chronology, just as Australia – an appendix to Asia for most of his timespan – is not within his geography.

Prolonged contact between indigenes and incomers brought sickness, death, captivity and abuse to the human inhabitants, and all that plus extinction to many animal populations. Pacific peoples fell victim to all the world’s microbes: “I am shippy” (*Kua pāi au*), ailing Cook Islanders complained, knowing full well where their illnesses originated. Alien peoples of the ship took prisoners to acquire knowledge, make political bargains, or simply satisfy sexual desire: unequal encounters caused estrangement, conflict and the scars that came from sexually transmitted diseases, smallpox and other invasive pathogens.

These human horrors occurred against the backdrop of the increasingly frantic “Great Hunt” for marine mammals, including sea otters, fur seals and great whales, all slaughtered in droves to satisfy Chinese merchants, Massachusetts mill-owners and other consumers around the globe. “It seems to me that our path through the Pacific is to be marked in blood”, wrote a shaken midshipman on the US Exploring Expedition of 1838–42, and blood stains much of *The Great Ocean*. When Melville’s masterpiece appeared, Iglar writes, “the ocean’s people, markets, and natural resources were thoroughly entwined with the surrounding world” – for good but also, in the experience of many Pacific populations, for ill.

The Great Ocean pictures the mid nineteenth-century Pacific as both a graveyard and a seedbed. Peak oil – the exhaustion of sperm-oil – had almost been reached, much as alarmed naturalists had observed the decline and destruction of fur-bearing mammal popu-

lations – peak fur? – in preceding decades. Those same naturalists and their successors also looked to the future of the geophysical sciences in the Pacific. More than a dozen scientific expeditions between 1816 and 1830 laid tracks in the ocean that *The Beagle* and the US Exploring Expedition followed. Among the “scientific” aboard the American expedition was James Dwight Dana, who first pieced together Pacific geology and demonstrated its “evident connexion with a system that pervades the whole world”. Dana anticipated the much later hot-spot theory for the formation of the Hawaiian chain but, as Iglar also shows, in this regard Western cosmology was only catching up with the origin stories native Hawaiians had told for generations. For Dana, the advance was short-lived: his all-embracing vision of the volcanic Ring of Fire, circling the Pacific basin and driving its seismic activity, quickly collided with the imperatives of Manifest Destiny. By the time he had written up his extensive investigations in the 1840s, American sovereignty covered the continent from sea to shining sea and a “vast stretch of the eastern Pacific coastline” was gradually deglobalizing to become “the American Far West”.

At around the same time that a large chunk of the eastern Pacific was turning into the western United States, the Peruvian guano trade was taking off in the 1840s. This is the flashpoint for *Guano and the Opening of the Pacific World*, which aims to prove that “marine bird excrement is at the root of modern existence and fundamental to the incorporation of the Pacific Ocean into global history”. By turns illuminating and obsessive, Cushman’s book traces every thread in the modern history of nitrates and phosphates from their origins in Peru, Chile and the Pacific islands outwards to Australasia, Britain and beyond. His work is more sprawling and less elegant than Iglar’s, but it covers considerably more ground, even at some cost to coherence. Cushman follows his leads wherever they take him. This Shandean strategy generates hosts of incidental insights – for example, into the impact of El Niño oscillations on the First World War, the discovery of an aquacultural “Blue Revolution” alongside the post-war agricultural Green Revolution, or the nomination of the Law of the Sea Convention (1982) as the largest ever global redistribution of property rights – but guano can disappear for pages, nearly whole chapters, at a stretch. All scepticism, even sniggering, aside, Cushman does make his case for the place of bird droppings in the making of the modern world. His book can stand alongside that other curious classic about a world-historical product with a Quechua name, Redcliffe Salaman’s *The History and Social Influence of the Potato* (1949).

Guano birds have been producing their nitrogen-abundant waste for 11 million years, but only in the nineteenth century did harvesting it become an industrial process. Cushman calls the decades between the first chemical analysis of guano and the first appearance of artificial fertilizers “the world’s guano age” (1802–84). More bluntly, this was “the age of shit” when Peru dominated the world market for phosphates and suffered disastrous effects on its political and ecological stability. By the mid-1850s, more than 60 per cent of Peru’s state revenues came from exports of guano –

enough to bankroll the abolition of slavery and of the poll tax levied on indigenous peoples. Twenty years later, “peak guano” had been reached, and the global fight for fertilizer – in this case, the nitrates of the Atacama Desert – ignited the War of the Pacific (1879–84) between Peru and Bolivia on one side, and Chile on the other. This was the century’s second most destructive war per capita, after the Taiping Rebellion and ahead of the American Civil War. It was also an early foretaste of the conflicts over natural resources to come in the twentieth and twenty-first centuries.

The fortunes of Peruvian guano fluctuated wildly for the next century, often in sync with the rhythms of El Niño events that periodically wiped out stocks of anchoveta, the main source of food for guano birds on Peru’s coastal islands. (Cushman follows Mike Davis, Richard Grove and other historians in making excellent use of El Niño–Southern Oscillation records to reveal climatological coincidences with modern famines, revolutions and other upheavals.) To manage the vulnerable bird population, the *Compañía Administradora del Guano* (CAG), “the greatest of all industries based upon the conservation of wild animals the world has ever seen”, was founded in 1909. Cushman traces the roots of contemporary conservation to this event, implicitly rejecting recent claims for other sites around the world – Mauritius, the Scottish Highlands or Thirlmere near Manchester, for instance – as the matrix of modern conservation. That the CAG’s management was a disaster is part of his point. By 2000, after 2,500 years of harvesting, Peru produced no more guano. It now imported all its fertilizer, after a failed effort to create export-led fisheries caused more damage than El Niño ever could. Peru’s “world-famous guano industry died in full public view”; even Prince Philip called for emergency action to help the beleaguered birds.

What makes *Guano and the Opening of the Pacific World* a particularly Pacific history is the ocean-wide scramble for guano islands, the local labour to exploit them and the markets for their fertilizer, notably the farms of Australia and New Zealand. The European imperial land-grab of the late nineteenth century is well known; less familiar is the mid-century island-grab by the Pacific Great Powers, the kingdom of Hawaii, Japan, Mexico, Ecuador, Chile and Australia. Most aggressive of all was the US, which used the 1856 Guano Islands Act to extend American property, though rarely American sovereignty, across the Pacific and occasionally in the Caribbean and the Gulf of Mexico. (There should be a study of all these anomalous spaces in the American empire, from guano to Guantánamo.) The Act also helped acquire stopping-points for Pan Am’s trans-Pacific route as late as 1936. Britain’s parallel quest for phosphates continued until a year later, when McKean Island, an uninhabited frigate-bird colony now part of Kiribati, became the very last territory claimed for the British Empire in October 1937.

The ancient guano deposits on the islands of Oceania lay much deeper than those off the Peruvian coast; the back-breaking, lung-choking work of extraction fell mostly to Pacific Islanders and Chinese migrants. Cushman’s most painful pages relate the horrors on Banaba and Nauru, islands thoroughly stripped of their resources by labourers whose leading cause of death was

dysentery. Workers on the Lever Brothers’ island copra plantations, source of the coconut oil in Lifebuoy soap, suffered the same racking illnesses as those in the British Phosphate Company’s guano diggings. Cushman pulls no punches about their fate: “tens of thousands shit their lives away” so that whites could stay white and their fields become fertile.

“Where is fresh land to turn up? where is the dressing to improve that which is already in cultivation?” Thomas Malthus had asked in 1798. Peru and Oceania were not his answers, but his heirs in the mid twentieth century were well aware of the links among phosphates, soil and population in the Pacific world. These conservationists join capitalists and empire-builders in Cushman’s black book of guano. Primal figures in the history of modern American environmentalism – the ecologist Aldo Leopold, the ornithologist William Vogt and the biologist-bureaucrat Fairfield Osborn – appear here as well-intentioned but maladrofit manipulators of markets and ecosystems in Latin America. They promoted an “oceanic path to development” through fisheries and aquaculture, but as Peru became the world’s largest producer of fish in the 1960s, domestic consumption fell: “an astounding case of ecological injustice for the nation’s poor”. Guano birds starved as trawlers scooped up their food supply to feed foreign consumers. This was no tragedy of the commons, Cushman insists, caused by over-exploitation of an unmanaged resource. Instead, it was a technocratic tragedy created by credentialled experts attempting to yoke conservation to profit in their “ecological laboratory”.

In 1944, one of those technocrats, Fairfield Osborn, had edited the first, and for decades the only, book entitled *The Pacific World*. This was a handbook for US servicemen in the Pacific theatre, covering the history, flora, fauna and human inhabitants of Oceania and the lands of the Pacific Rim, compiled because “we Americans need to know more of the Pacific”. This “Pacific world” was shot through with racism, romanticism and neo-imperial optimism (“all of our epic movements have been westward”). The destructiveness of the war in the Pacific soon inclined Osborn towards the much bleaker view informing the neo-Malthusian works for which he is best known, *Our Plundered Planet* (1948) and *The Crowded Earth* (1953). The later rise of nuclear testing – another dire development for local sea birds, who died on Kiribati “with their eyes burned out of their pointed heads” – only confirmed this pessimism about the Pacific and its future.

The Great Ocean and Guano and the Opening of the Pacific World build on generations of scholarship by historians in, and of, the Pacific. By drawing on ethnohistory, environmental history and the history of science, they make great strides towards bringing the Americas into Pacific history and broadening world history to incorporate the Pacific. One-third of the world can no longer play second fiddle to histories centred on the Atlantic. Yet their achievement is almost as much allegorical as it is historical. When read in tandem, these striking books tell a grim story of unbridled hubris, confident consumption, environmental degradation and the collapse of vulnerable populations. Seen in this cold light, the past two centuries of Pacific history stand proxy for humanity’s global impact in the Anthropocene.