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“Lonely Dots”: John Thomas Arundel and the Architecture of Greater British Enterprise in the Pacific

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ABSTRACT

The Victorian idea of a globe-spanning Greater Britain has been largely obscured by more recent discussions about “anglobalisation” and the so-called “Anglo World.” This paper proposes, however, that the political and philosophical positions vested in the idea of Greater Britain can have significant repercussions for understanding the historical relation between architecture and the state. It presents an architectural history of Greater British enterprise, arguing that, in the late-nineteenth-century Pacific, British imperial power relied both on liberal systems of law and politics, as well as the development of the capitalist economic system as a mode of governance in and of itself. The discussion follows the figure of John Thomas Arundel (1841-1919), an English businessman and trader, as he amassed significant interests in the guano and copra industries from the early 1870s on. To consider Arundel’s business empire is to shuttle between multiple scales, traversing the various islands, companies and infrastructures involved in the extraction of certain raw materials over time. As the discussion intends to demonstrate, the spoils of this extraction were always designed to run along British lines, between British states and in the name of British ascendancy as the empire looked towards a new century of global governance.

The Victorian idea of a globe-spanning Greater Britain has been largely obscured by more recent discussions about “anglobalisation” and the so-called “Anglo World.”¹ This paper proposes, however, that the political and philosophical positions vested in the idea of Greater Britain can have significant repercussions for understanding the historical relation between architecture and the state. As the historian of political thought Duncan Bell has argued, Greater Britain was a racialised imperial imaginary that emerged around 1860 and lasted until 1900 in which a global British polity would order the world according to the principles of liberalism.² It made clear distinctions between sites of empire—for example, India—and sites of

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settler colonialism—i.e. the Tasman colonies, Canada, the Cape Colony, etc.—in imagining the body politic of a globalised Britain. Whereas the former ostensibly required more hegemonic structures of governance—couched in terms of the “civilising mission”—the transplantation of British settlers to the colonies produced democratic and constitutionally liberal political communities that adopted a capitalistic social order and were tied to one another—racially and culturally—by what the Australian statesman Henry Parkes celebrated as a “red line of kinship.”³

Whether in reference to a “racial polity,” an “extra-parliamentary federation,” a form of “parliamentary federalism,” or even a “supraparliamentary” federated globe-spanning state, the idea of Greater Britain was always a “site of political contestation” regarding the place of the British empire in the shifting world order of the late nineteenth century.⁴ It manifested in the form of organised political movements, speculative philosophical discourse, popular notions about empire and highly visible architectural projects.⁵ As Bell observes: “the proponents of Greater Britain...represented one of a large number of competing and intersecting movements aiming to challenge and transform the way in which the British empire (and state) was understood.”⁶ Greater Britain was never a monolithic idea, instead it reflected a broad and variegated attempt to accommodate the late-nineteenth-century network of self-interested British territories within an emerging image of Britain—its people, values, institutions, enterprises and forms of government—as a global stabilising force.⁷ According to Charles Wentworth Dilke, one of the idea’s earliest proponents, “the ultimate future of any one section of our [English] race...is of little moment by the side of its triumph as a whole,” in which the power “of English laws and English principles of government is not merely an English question—its continuance is essential to the freedom of mankind.”⁸ Wherever such markers of Victorian progress were lacking, it became the putative duty of British subjects to modernise, industrialise, civilise and develop. The limits of any particular British state were in these ways transcended by a shared countenance towards global developments based on a common racial and “national” identity at a time of increased interest in models of statehood and global governance.⁹ As Dilke already explained to his reader in 1869, the idea of a Greater Britain enabled him to apprehend the overall “grandeur” and unrivalled modernity of the English race as a whole, “girding the earth, which it is destined, perhaps, to eventually overspread.”¹⁰

The following analysis ventures beyond the territory that is so often privileged in histories of states and empires. Following Max Weber, modern sovereignty is typically defined as “claiming the monopoly of legitimate violence in the territory,” a violence that is rationalised and organised via the administrative apparatus of the state. This definition establishes a neat relationship between land, the state and its power, enabling historians to

chart how regimes of governance restructured and otherwise reconfigured territory in pursuit of public prosperity and strategic interests. Buildings are obviously germane to these endeavours, whether they housed governmental or military functions, represented the objectives of statecraft or otherwise operationalised the administrative logics of the state. But the state is only one scale and creature of governance to which the architectural historian might attend: not all sovereign functions are presided over by the state itself, whether through deferral, incorporation or forms of so-called “extrastatecraft”; and not all modes of governance are delimited within a contiguous territory.¹¹ In other words, governance—the objective of any state—does not always produce absolute or uniform spatial conditions, nor is it always advanced by a stable and hermetic state apparatus. It can be camouflaged behind the objectives of technical, commercial, financial or humanitarian actors pursuing their own narrow interests that nevertheless work to install the underlying social and economic order, which liberalism seeks to maintain and extend. It is upon this expanded understanding of the relation between state and territory, territory and governance, governance and its techniques of implementation that all aspirations for a Greater Britain were ultimately premised.

This paper seeks to elucidate the status and role of architecture in facilitating the multiple agendas of Greater British enterprise in the late-nineteenth-century Pacific. It proposes that in its entanglements with the imperial state apparatus, such enterprise established forms of political order that ultimately advanced global British interests through commercial expansion. The discussion follows the figure of John Thomas Arundel (1841–1919), an English businessman and trader—the “Cecil Rhodes of the Pacific,” according to some—as he amassed significant interests in the Pacific guano and copra industries from the early 1870s on.¹² From the islands of the Great Barrier Reef in the west, to Clipperton Island off the coast of Mexico in the east, Arundel’s business empire expanded into new regions of commercial activity into the twentieth century—especially throughout the Central Pacific—following shifting commodity prices. Eventually, operations stabilised around the extensive rock phosphate deposits on Banaba (Ocean Island) and Nauru, generating vast wealth for Arundel and his colleagues.

In charting this evolution over five decades, the analysis presents an institutional anatomy of Arundel’s business empire: an examination of the relationship between a company’s changing internal organisation and the material effects these changes produced on the ground.¹³ As David Fieldhouse has argued, “the character of any institution lies in its functions and the accumulated conventions which determine how these are carried out, not in its formal structure.”¹⁴ Following that formulation, the discussion prioritises the historical continuity of Arundel’s operations,

approaching the many mergers, share trading agreements and successor companies that punctuated Arundel's long career as reconfigurations of the same fundamental objectives. As the archival record makes plain, these objectives were always clear to Arundel himself: to extract valuable raw materials from remote Pacific islands in the name of British empire development; in pursuit of personal wealth; and to bring "civilisation" to those Indigenous populations with whom his business dealings brought him into contact. By leveraging the political and commercial networks of British imperialism to these ends, Arundel ultimately transformed a small peripatetic trading company into a dominant player in the global phosphate and copra industries, channelling resources and capital along British lines, between British states and in the name of British ascendancy as the empire looked towards a new century of global governance.

The following sections are organised chronologically and thematically, each devoted to a different venture within Arundel's evolving business empire between 1871 and 1920. The sections consider the legal frameworks, sources of finance capital, composition of company boards, labour conditions, political connections and commodity markets that shaped the institutional anatomy and propelled the growth of Arundel's business empire for almost five decades, leading to the formation of the British Phosphate Commission in 1920, which continued to supply British states with heavily subsidised fertiliser until late in the twentieth century. Katerina Teaiwa, an anthropologist and scholar of the Pacific, has emphasised the importance of engaging this history "telescopically," whereby Pacific phosphates are understood, simultaneously, "as island land mass, mined and crushed rock," bags of fertiliser, their application on colonial pastures and, "at the molecular level," as an engineered aggregation of phosphoric acid and phosphate compounds.¹⁵ The same spatial logic can also be applied to soap: from island territory to coconut plantation, to copra processing plant, to trading station, to ship, to factory, to point of sale as soap, to its use as an anti-bacterial in urban households. Buildings played important roles in facilitating these material transformations and transfers across space—protecting equipment, storing goods and housing personnel—however no single building was decisive. Rather, buildings functioned as part of an expanded cast of technologies and other infrastructures that worked together to negotiate and overcome the (geographical, environmental, geopolitical, financial, technical) challenges inherent in Arundel's business model.

As G. A. Bremner has argued, whereas the "traditions of architectural history teach us that certain buildings demand attention for their historical significance," it is the defining characteristic of infrastructure to "disappear from view as we focus on the objects it carries, transmits, or contains." This at once explains the abundance of histories on the Pacific phosphate

industry as well as the almost complete lack of studies dealing with this industry's spatial characteristics. As Bremner continues, the ontology of infrastructure trivialises the architectural historian's typical preoccupations with aesthetic merit and professional biography, "highlighting instead [buildings'] dissipated condition as points of intersection and exchange within much wider spheres of coexistence."¹⁶ Following this logic, a useful distinction can be made between an architectural history of J. T. Arundel's Pacific enterprise and a history of that enterprise's architecture: the latter, narrower and object-oriented; the former, attuned to architecture's mediating potential within a broader institutional anatomy. Whereas the figures selected for this essay attempt to illustrate the changing technical and material conditions of Arundel's exploits throughout the Pacific, the discussion examines the ways in which these changes were at turns required or precipitated by changes to Arundel's business model over time. If, as Bell argues, "the vast expanses of the British empire provided both a practical laboratory and a space of desire for liberal attempts to reorder the world," then the present case illuminates some of the spatial and administrative innovations that accompanied such attempts, as well as the ability of actors such as Arundel to traverse the fertile commercial ground located at the edges of states and statelessness.¹⁷

Mobility: J. T. Arundel & Company, 1871—1897

John Thomas Arundel was raised in London at the centre of the religious and commercial life of the city. His grandfather had served as Home Secretary of the London Missionary Society for twenty-five years and his father was involved in a warehouse business on the Thames.¹⁸ As a result, Arundel had immediate access to the world of British imperialism, along both religious and commercial lines. He would often draw on these connections over the course of his busy career as he went on to become one of the most important traders in the Pacific—"a remarkable example of that mid-Victorian phenomenon, the upright, pious and adventurous Christian English businessman," according to Maslyn Williams—and "the world's most important guano producer," according to Gregory Cushman.¹⁹

Arundel's fascination with guano and copra can be traced to his early work for the London-based shipping company, Houlder Brothers & Co. In 1860, at the age of nineteen, Arundel was sent by his employer to the Chincha Islands, off the coast of Peru, to observe the workings of the established guano industry there, which was fuelling the western agricultural expansion of the United States. In 1868, Arundel undertook another voyage on behalf of Houlder Brothers & Co., this time to the Pacific, to again examine the workings of the guano industry. Enthusiastic about the opportunities he saw while on these trips, Arundel convinced his employer to

support him in a venture of his own. In 1871, Houlder Brothers & Co. provided half of the start-up capital for J. T. Arundel & Co., which immediately set its sights on Pacific trading. American companies had dominated the region ever since the introduction of the *United States Guano Act 1856*, which enabled them to lay claim to any island for the purposes of extracting fertiliser so long as it was not within the jurisdiction of another government. By the time of Arundel & Co.'s arrival in the Pacific, the unoccupied guano islands—Baker, Howland and Jarvis—had therefore already been claimed and worked for decades by large US corporate traders under the terms of the *Guano Act*. Discoveries closer to the United States, as well as large phosphate finds in Morocco and Tunisia, meant the Pacific deposits had become less desirable for companies supplying the European and American markets. While this presented an opportunity for Arundel, who intended to sell guano to the Australian colonies and New Zealand (these being largely cut-off from the global trade due to shipping costs), it also determined the mobility of Arundel & Co.'s operations during the first decades of its existence.

As a result, Arundel & Co.'s commercial interests were focused on Pacific trade more broadly prior to 1900: toa wood was sent to San Francisco, pearl shell was delivered to markets in Japan and Europe, and sea cucumber (*bêche-de-mer*), shark fin and ornaments were sent to ports throughout Asia.²⁰ In obtaining these goods, Arundel often relied on his knowledge of the Christian missionary network that had been established throughout the Pacific since the 1820s. Missionaries facilitated—but could also thwart—European commerce, brokering relationships with indigenous populations and helping to establish the terms of trade. Mission stations were crucial labour recruiting grounds for European traders seeking a cheap workforce accustomed to the tropical climate, although many missionaries and Islanders had become wary of trading vessels as a result of abuses by Peruvian slavers supplying labour to the American guano trade. Arundel's church and family connections came into play immediately, enabling him to acquire twenty-one labourers from a London Missionary Society station at Rarotonga—the first instance of a recruitment strategy that Arundel would maintain into the twentieth century.²¹ These first recruits accompanied Arundel to Starbuck Island where they would together establish Arundel & Co.'s first guano diggings in the Pacific.²²

Arundel & Co. adopted a unique infrastructural approach on Starbuck Island that would be repeated over the course of the company's early exploits throughout the Pacific. Once mining rights had been secured over a given island, usually through a combination of negotiations with indigenous groups and the respective imperial government, work could commence. Guano deposits and harder, so-called "rock guano" were removed from the typically coral geology of the island by indentured labourers using pickaxes

and shovels. Brooms were used to sweep up the looser, chalkier surface deposits, which were transported across the island in wheelbarrows or along small tramways. Either packed into bags and loaded onto a launch or deposited directly into a chartered vessel via a timber jetty, the guano was removed slowly and inefficiently, in oppressive heat, until both the diggings and the workers themselves were utterly exhausted. The company would then disassemble its mining equipment before establishing coconut plantations over the former diggings in the hope that the coconuts could be harvested in future years. The kernel of the coconut fruit would be dried out and sold as copra for the industrial production of oil, livestock feed and soap. New labourers were recruited as required, mostly from Niue and the Gilbert and Ellice Islands—areas brought under the influence of the London Missionary Society in the 1840s. Proceeding in this way, and moving from one island to the next throughout the Line and Phoenix Island Groups in what is now the Republic of Kiribati, Arundel & Co. developed into a multidimensional agent of modernisation: extracting hundreds of tons of Pacific guano per annum in order to transform the productivity of soils in the Australian colonies and New Zealand; absorbing Pacific Islander communities into labour markets formed around the commercial objectives of British businessmen; and reorganising the ecologies of remote Pacific islands to supply the raw materials for commodities desired throughout the British world.

In the 1890s, having worked the commercially viable Pacific guano deposits for over two decades, Arundel & Co. moved its operations closer to its main fertiliser markets in the Australian colonies and New Zealand. The company secured rights to remove surface deposits of guano and rock guano from islands in the Capricorn and Bunker Group, off the colony of Queensland, as well as a number of smaller islands in the Wellesley Islands Group in the Gulf of Carpentaria. Correspondence reveals that one of Arundel's commercial strategies during this period involved sending unsolicited 100-ton samples of guano to potential clients—chemical producers, meatworks and large agricultural enterprises—promising much larger quantities if desired.²³ Receipts and travel logs suggest that Queensland's network of ports provided prefabricated collapsible equipment during this period—buildings, jetties, furnaces and moorings—as well as supplies for an indentured Japanese workforce overseen by Arundel & Co.'s white managers (Fig. 1).²⁴ However, Arundel was not content to limit his company's operations to the meagre prospects presented by Queensland's uninhabited phosphate islands. As Williams observes, Arundel's incessant communication—with missionaries, colonial administrators, investors, rival businessmen and colleagues—captures his desire that Arundel & Co. should grow into a larger floated company involved in developing and coordinating “Pacific trading on an all-embracing scale, directed to the economic benefits



Figure 1. Arundel & Co.'s operations on Raine Island on the outer fringes of the Great Barrier Reef. Source: William Saville-Kent, *Concordia and Albatross at Raine Island, Queensland, 1894*, State Library of Western Australia, 1786B/50.

of the Empire and the spiritual uplifting of the Indigenous populations.²⁵ This was, of course, the philosophical and political impetus behind a Greater Britain: a British world polity that, in its domination of the earth, would also bring security and stable systems of governance.²⁶

Connection: The Pacific Islands Company Limited, 1897—1902

Arundel moved to advance his position in this respect. In 1897, Arundel & Co. significantly expanded its interests in Pacific guano, copra and inter-island trade. In addition to acquiring a number of properties and facilities from companies engaged in the copra industry throughout the German Marshall Islands, it also purchased a substantial portion of Henderson & Macfarlane, an Auckland-based company that had established an elaborate trading network, as well as holding plantation and guano licences, throughout the British-ruled Western Pacific.²⁷ In addition to existing mining leases and plantation rights, this purchase comprised hundreds of dwellings, store rooms, cook houses, copra houses, boat sheds and vessels (each one scrupulously valued by H. E. Denson of Sydney) along with a record of every water tank, item of furniture and piece of industrial equipment found on each island.²⁸ Elaborate inventories of this kind were both useful in determining an agreed sum for the takeover as well as for promotion to potential investors. The newly acquired buildings were adorned with signs to clarify



Figure 2. The Pacific Island Company's copra processing facilities on the island of Ejit in the Marshall Islands around 1899. The sign on the building on the left reads "The Pacific Islands Coy. Ltd., London & Sydney (Successors to) Henderson & Macfarlane". Source: Image 47, Historic Photograph Album, Micronesian Area Research Centre, University of Guam.

the change in ownership while also emphasising continuity so as not to disrupt existing trading practices throughout the region (Fig. 2) By this time, Arundel & Co. had also acquired titles and leases for islands in Fiji, the Line and Phoenix Islands Group, the Gilbert and Ellice Islands Group, as well as Clipperton Island off the coast of Mexico, which were now connected to the more recent acquisitions as part of a truly expansive sphere of commercial activity (Fig. 3). As a result, Arundel & Co. was reconstituted as the Pacific Islands Company Limited (PIC), headquartered in London—on Leadenhall street, home to East India House and the city's insurance industry—as well as in Sydney at Macquarie Place. The company's new chairman was Arthur Charles Hamilton-Gordon, the Lord Stanmore, former Governor of Trinidad (1866–70), Mauritius (1871–74), Fiji (1875–80), New Zealand (1880–82), Ceylon (1883–90) and the first High Commissioner for the Western Pacific (1877–83). Other members of the executive team in London included Robert Herbert, the first premier of Queensland (1859–66) and former Under-Secretary of State for the Colonies (1871–92), as well as John Bramston, former Assistant Under-Secretary of State for the Colonies (1876–98). According to Fieldhouse, the PIC "can best be seen as one of the last of those private commercial ventures which had taken a leading role in the establishment of British...political and economic control" in the Pacific.²⁹

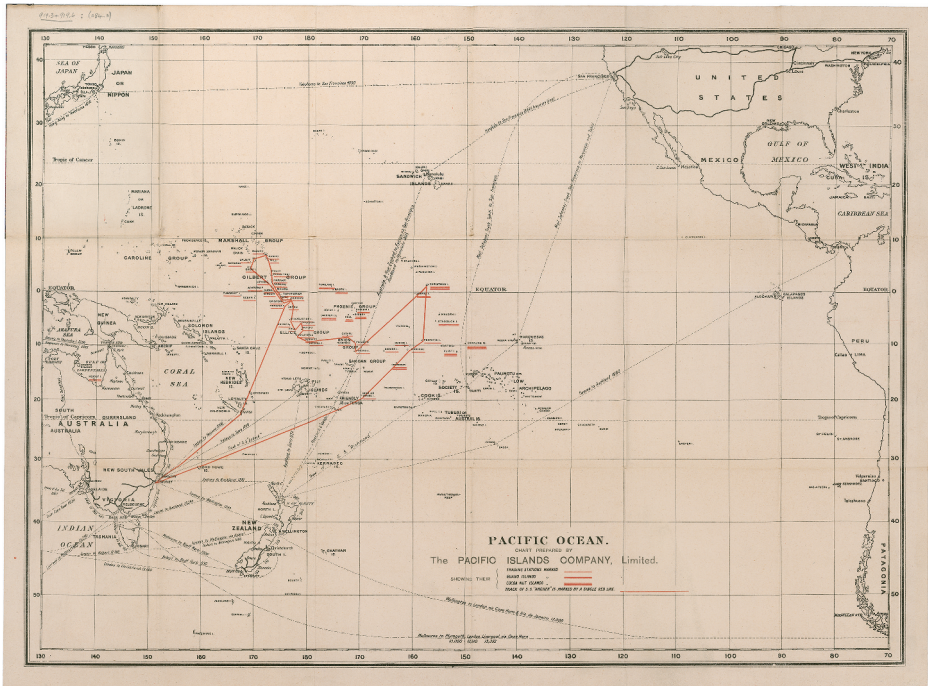


Figure 3. Map of the PIC's trading interests throughout the Pacific Ocean following its amalgamation with parts of Henderson & Macfarlane in 1897. Source: Pacific Islands Company Limited, Chart showing Trading Stations, Guano and Coconut Islands held by the Company, c.1900, NAA 1340195.

Arundel immediately wrote to Secretary of State for the Colonies Joseph Chamberlain upon the PIC's formation. Chamberlain believed that “the British race is the greatest of the governing races that the world has ever seen,” and that it was “the duty of a landlord to develop his estate”—views that resonated with Arundel who now assured Chamberlain that “we want to carry our Colonial friends with us, while at the same time keeping British interests paramount and trust that the Company may be a powerful assistance to the Colonial Office in developing the Pacific Islands.”³⁰ With Arundel as vice-chairman overseeing operations in the Pacific and the colonies, the London-based board members could continue to direct energy into leveraging political and business connections in the imperial capital. For his part, Lord Stanmore envisaged that the PIC would bring about “the fusion of large firms trading in the Pacific, in order to avoid unnecessary competition, and to conduct the business with greater economy.”³¹ In collaboration with a zealous entrepreneur like Arundel, Stanmore was himself well placed to imagine and enact a business empire along such lines. He was a member of the British Liberal Party and a close friend of former Prime Minister William Ewart Gladstone with whom he regularly exchanged views concerning British imperial policy and liberal political

philosophy. Stanmore had implemented the system of indirect rule while acting as governor of the Fiji Islands and retrained his attention to the Pacific region following his retirement from public office in 1890. As his correspondence with Gladstone makes plain, Stanmore's liberalism was strongly coloured by a humanitarian strain, which viewed the British empire as a vehicle for the "improvement" of indigenous groups under the protection of British institutions and imperial law.³² To Stanmore, the PIC was an extra-state vehicle for pursuing similar ends.

The PIC's first year yielded a decent profit of approximately £10,000. Once more, however, larger aspirations prevailed. In 1898, an application was made, via the PIC's board, for a significant land concession of 200,000 acres in the Solomon Islands, which had been declared a British protectorate five years earlier. This land would support a plantation-derived economy developed by Indigenous workers governed by the PIC as a chartered corporation. The Colonial Office was unwilling to approve the initial application due to the perceived risk of devolving British sovereign functions to a relatively obscure private company.³³ Instead, in the following year, it granted a ninety-nine-year lease for 100,000 acres, which was doubled in 1900 in an attempt to raise sufficient revenue for covering the expenses of administering the protectorate. The plan stalled once the Deutsche Handels- und Plantagen-Gesellschaft (DHPG) entered a counterclaim for land in what had previously been German New Guinea before 1899.³⁴ Although the PIC eventually bought out the DHPG for £5,000 in 1902, their original ambitions were significantly compromised by the geopolitical complexity of the late-nineteenth-century Pacific. Moreover, the company remained desperately short of capital as shrewd investors monitored the fluctuating market price of copra and recognised the poor quality and low quantities of the guano being extracted from the PIC's largely exhausted deposits.

At this uncertain juncture, two events transpired that would radically alter the pace, scale and significance of Arundel's business empire into the twentieth century. The first involved an almost unbelievable coincidence in the PIC's Sydney office, whereby the operations manager Albert Ellis, who had been temporarily stationed to the company headquarters on Macquarie Place, conducted a laboratory test on a piece of petrified timber that was being used as the office doorstop. When the chemical results were returned, it was revealed that this doorstop was in fact rock phosphate of seventy-eight percent phosphate of lime; more than 250% richer than the typical product being extracted by the PIC at that time.³⁵ The rock had been collected and transported to Sydney from the German-occupied island of Nauru in the Central Pacific by a PIC employee who promptly wrote to Arundel in London that there was plenty more such rock phosphate to be found: "The whole island I firmly believe to be one huge mass of Rock guano."³⁶ Owing to its proximity to Nauru and its similar topography,

Banaba was also deemed likely to contain deposits of rock phosphate at a similar grade, while boasting the additional commercial benefit of sitting beyond German territory in international waters. Ellis conducted a survey tour of Banaba and Nauru on behalf of the PIC in early 1900, confirming that both islands were composed almost entirely of rock phosphate. Decades later, he reflected on his realisation at what Banaba would mean for the company:

We passed up through the native village, and a hole was sunk in the rising ground just beyond. The result was a gratifying surprise, for not only was rock phosphate thrown up, but all the fine alluvial intermixed with it appeared to be phosphate also. Several tests by means of the portable laboratory proved this to be the case, and the quality of both rock and alluvial to be very high grade. Proceeding inland about a mile, we sank several more holes at intervals, and in each instance nothing but phosphate was turned up. [...] In no case did we reach the bottom of the deposit. [...] At last we had “struck oil” and never was a “gusher” more welcome or more opportune.³⁷

Despite the results of Ellis’s inspection tour, problems both financial and political remained. Regarding Banaba, problems of this nature could be handled by the board in London, which promptly agitated for the island to be annexed as part of the Gilbert and Ellice Islands Protectorate. One condition of annexation stipulated by the Colonial Office was that an agreement between the PIC and the Banaban people was required. Following his survey of the island, Ellis immediately drafted up a contract of lease on the most lucrative terms possible for the PIC, covering the importation of industrial infrastructure, rights of access and a £50 annual royalty fee that could be paid to the Banaban people either in cash or in the form of trade goods for every year of mining activity up to a period of 999 years. When these contractual conditions are juxtaposed with the fact that the PIC’s early estimates suggested that Banaba held six million tons of rock phosphate—worth approximately £15 million in 1900, or £1.2 billion in today’s terms—the extent of the exploitation built into the terms of the agreement becomes clear.³⁸ With an agreement in place, British sovereignty was eventually extended over Banaba but only after sustained lobbying by Stanmore and Arundel. In September of 1901 the PIC was issued with a ninety-eight-year mining lease.

The more difficult problem to solve was that of securing finance capital. Notwithstanding the value of the rock phosphate on Banaba, Arundel and his team were regarded as amateurish and unreliable by those with experience in the world of industrial-scale phosphate fertiliser production, and the company itself was not deemed profitable enough to be accepted as security against a loan of the size required to commence working the deposits. Numerous “capitalist friends” and colonial banks were approached by Arundel and Stanmore to little avail, citing concerns about the danger of shipping and the remoteness of both islands.³⁹ A second transformative

event then transpired when Arundel coincidentally met the millionaire “soap king” William Lever—later the Lord Leverhulme—on a voyage from Sydney to San Francisco in November of 1901. Lever Brothers had just opened a subsidiary soap factory in Balmain on Sydney Harbour to avoid paying Australian tariffs on the importation of soap and were seeking direct access to coconut plantations in the southern Pacific that could supply the factory with copra for soap production.⁴⁰ Over the duration of the voyage, Arundel and Lever came to an agreement that the Pacific Islands Company would be liquidated and formed again under the same name in the following year. This would enable Lever to invest £25,000 in the new venture, effectively bankrolling the commencement of operations on Banaba. In return, Lever was given a position on the company’s board, as well as the option of purchasing the lease for plantation land in the British Solomon Islands, no longer required by the PIC. As Lever wrote to a colleague later that year, Arundel had presented him with “a gold brick” that not only promised significant returns on his initial investment but would also enable Lever Brothers to import raw materials into the Australian market directly, complementing its vast holdings in the Belgian Congo in an attempt to control the world price of copra, and aiding in its development as a vertically integrated global business supplying oil-based products—especially soap—to Anglo-European populations around the world.⁴¹ Lever’s initial investment and continued involvement with the PIC via its board of directors meant that the history of Lever’s Pacific Plantations Limited and Arundel’s business empire remained entangled for decades to come.⁴²

By 1902, Arundel had already reinvented his business ventures numerous times in pursuit of new commercial opportunities throughout the turn-of-the-century Pacific. The second iteration of the PIC, buoyed by the capital injected by William Lever, presented a portrait of Greater British enterprise founded on Arundel’s thirty years of commercial toil in the Pacific. The executive and professional members of the PIC comprised New Zealanders, Australians and Englishmen who easily traversed British imperial conventions and institutions, solicited information from British religious and commercial networks, engaged circuits of British capital and drew on expertise from throughout the British empire. All this was channelled through company structures and legal frameworks that enabled an intrainperial company to establish interconnected sites of extraction throughout the Pacific that were tethered to commodity markets in the United Kingdom, Australia and New Zealand. This was work that, it was imagined, would secure British ascendancy in an industrialised world. It would benefit “British trade generally” and would play a critical role in “Empire development.”⁴³ It was the kind of work—remote, challenging, modernising and “civilising”—that suited “people of British stock,” to whom it

providentially returned both material wealth, as well as further evidence of the supremacy of the global British community.⁴⁴

That the PIC was supposed to be a vehicle for British interests in the Pacific was reiterated following the federation of the Australian colonies in 1901. Instances of Australian nationalism were interpreted as threats that might constrain the company's mobility within the empire. As noted by one board member: "A 'White Australia' including a 'White Ocean Island' and 'White Pacific' would be the ruin of everything." Arundel agreed, suggesting that "we would need to move heaven and earth with the Imperial Government to avert such a dire catastrophe."⁴⁵ Stanmore was similarly suspicious of Australian motivations, opining that "the Colonial Governments have the narrowest jealousy of British Companies," matched by the Australian legal system, which was "just as narrow, and as jealous of 'British' influence as the Australian Governments."⁴⁶ Care was taken not to hire Chinese workers in the early stages of the PIC's operations on Banaba in order to avoid causing "much offence in Australia" given that non-white labour was "so distasteful to the Australian mind."⁴⁷ This cautious approach, however, would change in the following years of consolidation.

Consolidation: The Pacific Phosphate Company, 1902—1919

In securing mining rights over Nauru from the German Imperial Government in Berlin, anxieties about British ascendancy in the Pacific again came to the fore. As a result of protracted negotiations, the PIC eventually agreed to buy out the Jaluit Gesellschaft of Hamburg, which held guano mining rights over the German Marshall Islands, as well as relinquishing its trading interests throughout the Pacific more broadly, which were likewise sold to the German company. Berlin insisted that a new venture should be formed to work both Nauru and Banaba and that there must be German members on the company's board. The Pacific Phosphate Company (PPC) was subsequently established in 1902 through a combination of the investments made by Lever, the merger with the Jaluit Gesellschaft and £60,000 of British capital raised through the sale of debentures in London. It was granted a ninety-nine-year lease to extract phosphate on Nauru in addition to the rights already granted for Banaba by the Colonial Office.⁴⁸ Crucially, however, Stanmore and Arundel managed to structure the company's charter so that two-thirds of its board of directors would always be British—in the expanded sense—thereby securing a balance of power that would allow the PPC to make strategic decisions in the interests of "the Empire." Collaboration with rival colonial states and actors did not foreclose the avowedly British interests of Arundel and his colleagues; rather it served as an opportunity to extend influence into and extract value from territories otherwise beyond their grasp.

Reflecting on the historical significance of Banaba and Nauru in 1936, Albert Ellis contended that no other Pacific islands had “done or are doing so much for the outside world as these two lonely dots.”⁴⁹ As it stood following the formation of the PPC in 1902, however, Arundel and his colleagues were still confronted with the problem of how to commence extracting and shipping the vast quantities of material at their fingertips, a task that far exceeded the largest projects they had ever undertaken while operating as the PIC. Issues of liquidity persisted following the merger with the Jaluit Gesellschaft such that it was necessary to derive capital for investment in machinery and equipment by immediately exporting small quantities of phosphate from Banaba. To this end, the crushing and processing plant used by the PIC on the phosphate islands off the Queensland coast was immediately collapsed and transported to Banaba. Designed during the highly mobile period of the PIC and intended for use at far smaller diggings, the capacity of this plant was minimal and it was already thoroughly worn-out (“fit for the scrap-heap,” according to Ellis).⁵⁰ Nevertheless, it was available and could be operated by only a small crew. Buildings were initially treated in a similar manner: disassembled on other islands within the PIC’s vast holdings before being shuttled to Nauru or Banaba in order to house the vanguard of PPC employees (Fig. 4).

Annual total phosphate production was gradually consolidated over the following years of operation, from approximately 22,000 tons in 1902 to



Figure 4. Early PPC buildings disassembled on other islands within the company’s former trading network and shipped to Nauru to commence operations. The caption for this photograph reads: “Old PIC Company House at Euiri (left) and Baltic Chambers (right)”. Source: Nauru Photos Attached to Report by A. H. Gaze, 1907, NAA 671741.

108,000 tons in 1905. In 1906, significantly upgraded facilities at Banaba assisted in further increasing the rate of extraction, which had been hampered by limitations in the size of the vessels chartered for freight, as well as the variable weather conditions, which could quickly undo a day's work if an afternoon shower soaked the product before it had been loaded for transport. Rotating dryers manufactured in France, able to operate through the night when necessary, were installed to combat this issue together with large, weather-proof phosphate storage bins. The original wooden jetties built at Banaba were replaced with steel versions, which were lengthened to allow larger vessels to moor in deeper water for loading. Steam locomotives navigated a narrow-gauge tramway that connected the phosphate diggings at the centre of the island to the crushing, drying and storage facilities along its perimeter (Fig. 5). At the diggings themselves, pickaxes were still being used but eventually gave way to steam shovels and small cranes.

Similar installations were eventually introduced on Nauru, where an administrative settlement and workers' accommodation were first constructed at Yangor in 1906 using prefabricated buildings supplied by the well-known German colonial contractor, F. H. Schmidt of Altona-Hamburg.⁵¹ Nauru—at this time still part of German New Guinea—represented a new sphere of activity for the company, which supplied the timber staff houses for the European employees of the PPC, a mess hall for officers, labourers' barracks and possibly also the island's hospital (Fig. 6). Although



Figure 5. Number 2 phosphate shed, Tapiwa, Banaba, c.1905. Source: Collection of Photograph Albums, Prints, Negatives and Slides of Islands Phosphate Mining Operations, NAA 6446298.



Figure 6. Photographs of prefabricated buildings on Nauru manufactured by F. H. Schmidt in Altona-Hamburg. Depicted are an officer's dwelling (top left), the interior of one of the island's numerous "Coolie Barracks" (top right), the island hospital (bottom right) and the interior of the mess hall for exclusive use by white employees of the PPC (bottom left). Source: Nauru Photos Attached to Report by A. H. Gaze, 1907, NAA 671741.

the importation of prefabricated buildings technically served to accelerate phosphate extraction on Nauru, those supervising their erection complained at length about the difficulty of matching F. H. Schmidt's drawings to "the heights and nature of the very rough and uneven ground" on the island.⁵² The later construction of phosphate storage bins, a locomotive engine house and drying facilities on Nauru were therefore contracted to Samuel McGill of New South Wales only once a detailed survey of the island had been produced. It was most likely also McGill who prefabricated "Leadenhall Chambers" on Nauru, an early PPC office building located in a German colonial territory but provocatively named after the administrative heart of the British empire (Fig. 7).⁵³

Between 1908 and the outbreak of the First World War, the productivity of both Banaba and Nauru was significantly increased such that over 1.6 million tons of phosphate had been shipped at the close of 1913. In part, this increase was the result of an accelerated rate of work brought about by technological developments: larger storage facilities, faster drying equipment, greater mechanisation, bigger ships and deeper moorings all played important roles. The Australian engineering firm J. M. and



Figure 7. “Leadenhall Chambers” on Nauru. Source: Nauru Photos Attached to Report by A. H. Gaze, 1907, NAA 671741.

H. E. Coane acted as consultants for the PPC during this period, designing cableways for Nauru and Banaba that could convey skips loaded with phosphate at the diggings directly to the processing plants along a series of elevated cables, reducing the difficulty of working between the coral pinnacles that dotted the islands (Fig. 8).⁵⁴ The firm visited both islands on numerous occasions, preparing management plans for the coordinated improvement of mechanical equipment, instructions for the rationalisation of working methods and specifying an industrial taxonomy of objects, materials and liquids deemed essential to maintaining and increasing the islands’ productive capacity. In reports dating between 1907 and 1911, the engineers repeatedly outlined in detail how the winches, belts, dynamos, buckets, cylinders, pumps, valves, furnaces, sieves, cables, chains, wiring looms, switches, oils, fuels, materials and compressed vapours they had specified, when applied using the correct techniques and within the tolerances stipulated, could save the PPC time and expense.⁵⁵

But increases in productivity were also dependent on the cost and capacity of the labour force employed. By the early twentieth century, the PPC had shifted away from employing local populations towards an elaborate labour trade based in Asia and throughout the Pacific. Labour was either transported to the islands by the PPC directly, typically from the Gilbert and



Figure 8. The overhead cableway at Banaba in c.1913 designed by the Australian engineering firm J. M. and H. E. Coane. Phosphate deposits can be seen in the background, behind the coral pinnacles left behind following extraction. Source: Phosphate Fields, Banaba, Kiribati, PIC Album 1203, National Library of Australia.

Ellice Islands Group, or via labour agents based in Hong Kong, Japan and China. Work was usually indentured and heavily stratified along racial lines: Japanese workers were preferred as cooks, labourers, mechanics and



Figure 9. J. T. Arundel (left) and the PPC's manager on Nauru, Captain Theet (right), sitting for tea and cake on the veranda of Stanmore House in c.1909. Domestic servants pose behind the three unidentified women. Source: Collection of Photograph Albums, Prints, Negatives and Slides of Islands Phosphate Mining Operations, NAA 6448832.

household servants for the company's white managers; Chinese workers were deemed suitable for labouring, carpentry and mechanical work; and Pacific Islanders were employed almost exclusively as labourers (Fig. 9). According to J. M. and H. E. Coane, questions of labour recruitment and management were also questions of engineering and design. "Modern mechanical devices," they argued, could be used to minimise "the difficulty that may at any time arise from reliance on Coolie and Kanaka labour" in such a "hot and enervating climate." And, whereas it was expected that an adequate supply of labour would soon become a problem as the PPC's operations increased, "on the other hand machines never tire and both Coolies and Kanakas could be readily trained to run them," assuming investments were made into appropriately designed equipment.⁵⁶

In 1908, approximately four hundred Japanese and one thousand Islander labourers were employed at Banaba alone, overseen by a small police force and around seventy white managers comprising PPC employees and representatives of the imperial government. Large settlements subsequently developed on both islands, complete with recreation rooms, cricket pitches, golf courses, laboratories, hardware and goods stores, churches, schools, police stations and government administrative buildings (Fig. 10). Eventually, Banaban and Nauruan villages were encircled by the PPC's

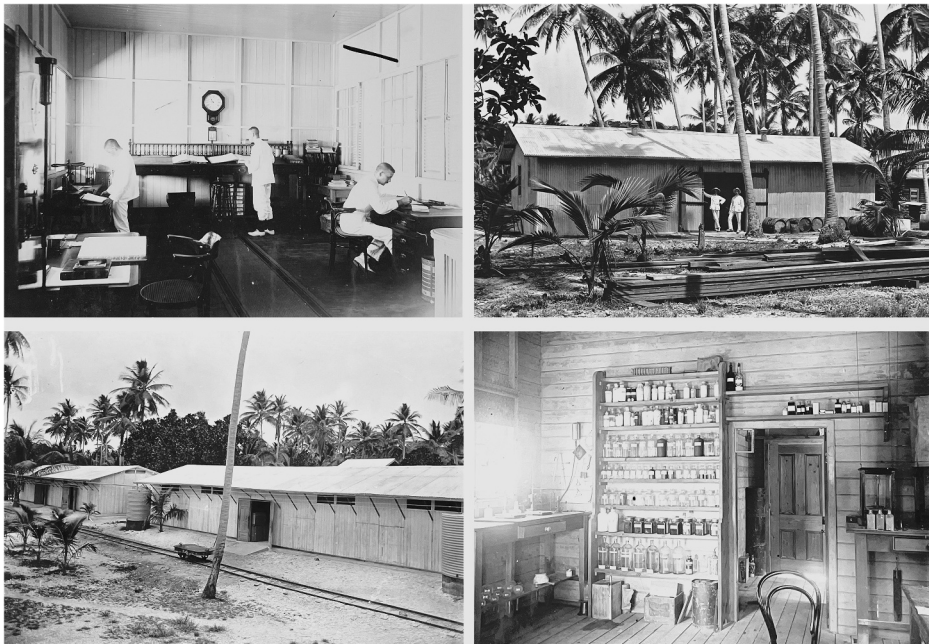


Figure 10. Photographs of different PPC buildings at Yangor on Nauru including the interior of the general office (top left), the oil store (top right), the interior of the island's laboratory (bottom right) and two goods stores (bottom left). Source: Nauru Photos Attached to Report by A. H. Gaze, 1907, NAA 671741.

sprawling equipment, repeatedly racked with illnesses and disease—tuberculosis, whooping cough, influenza, bronchitis, polio and pneumonia—imported by the growing number of colonists and labourers, and exacerbated by the incessant phosphate dust that shrouded both islands.⁵⁷ Sewerage systems and sea water showers were installed to minimise the occurrence of disease and the PPC's laundries were stocked with disinfectant soap supplied by Lever Brothers.⁵⁸ Condensers produced fresh water for the islands' water supply networks, power houses containing diesel generators provided electricity for industrial and domestic purposes, large refrigerators preserved meat and dairy goods imported from Australia, while radio stations enabled managers at both islands to coordinate production and direct incoming vessels. By 1913, Banaba and Nauru were therefore already far from the "lonely dots" Ellis would describe them as two decades later. They were visited regularly by increasingly large steamers bound for the fertiliser markets in Australia and New Zealand and they supported highly interconnected, heavily developed settlements overseen by a large and permanent population of white managers and officials (Fig. 11).

Gregory Cushman has suggested that "Australia and New Zealand never would have sustained their skin-deep appearance as neo-Europes without a concerted, second stage of neo-ecological imperialism."⁵⁹ One 8,000 ton shipment of Pacific phosphate, once treated with sulphuric acid to produce superphosphate, could provide in excess of one thousand average-sized farms in New Zealand with top dressing, increasing their stock carrying capacity and securing the production of grain, butter, cheese, meat, wool, hides and tallow. In Australia, the amount of superphosphate required to achieve similar outcomes was even less with the added benefit of protecting farms against the persistent threat of drought such that large phosphate processing facilities were established along the eastern seaboard to service Australia's agricultural regions.⁶⁰ Newspaper clippings and reports of the increasing rates of fertiliser use abound in Arundel's personal records, their findings often promptly recycled into his correspondence with prospective client companies.⁶¹ By 1919, the Australian photojournalist T. J. McMahon, having recently visited Banaba, could easily convey the significance of the PPC's operations to his readership. In an article titled "Let's-all-be-thankful Island: A Little Spot in the South Pacific That Multiplies the World's Food," McMahon outlined the role of fertiliser within industrial agriculture, tying the PPC's now elaborate infrastructure to a global British system of food production.⁶²

The timing of McMahon's report on Banaba was significant for two reasons: it was the year in which the Treaty of Versailles was signed, which devolved possession of Nauru to Britain, triggering the liquidation of the PPC and the formation of the British Phosphate Commission (BPC); and it was the year that John Thomas Arundel died. There is a neatness to



Figure 11. Map of Nauru depicting the facilities and land grant of the PPC at Yangor (middle left) as at 1913, including the timber and steel jetties, the administrative buildings of the Jaluit Gesellschaft, as well as Protestant and Catholic mission buildings, the so-called “native hospital,” a German government station, schools, roads and the Indigenous names of sites throughout the island. Source: L. Friederichsen & Co., *Nauru nach Aufnahmen der Beamten*.

the conjunction: one business empire drawing to a close having laid the foundations for a new one to take its place. As William Lever, now the Lord Leverhulme, wrote to a fellow director of the PPC upon Arundel’s death: “It is by such as he the British Empire has been built up.”⁶³ Indeed, Arundel’s long career arguably presents a paradigmatic example of Greater British enterprise: he had enabled British capital to enter into and accumulate in the Pacific for almost half a century, securing the fortunes of British investors and employees; his businesses had repeatedly legitimated imperial structures in the Pacific—whether by challenging or yielding to them—

irreversibly transforming both the material circumstances of Pacific Islander communities as well as the outer contours of the British empire in the process; and his sustained lobbying had unlocked vast reserves of natural resources that were now being reliably distributed to British polities in Australia and New Zealand, enabling them to transform both themselves and their environments through the biological work performed by fertiliser and soap.

Dissipated Architecture

Analysing the causality of individual architectural examples within J. T. Arundel's business empire risks engaging in a form of historiographic distraction from the wider conditions and objectives of their production. Instead, the architectural historian must take seriously the dissipated condition of buildings and other structures within Arundel's Pacific enterprise as instruments of facilitation. The point becomes most readily apparent in the process of sifting through the extensive archive kept by Arundel and his expanding cast of colleagues over more than fifty years, which both emphasises the fundamental role of design and construction in ensuring the viability of successive phases of business development—presented here as mobility, connection and consolidation—as well as the bracketed position of any given building as a catalyst of this evolution. Architecture is consistently crowded out within the archive by draft terms of lease, sketches of mooring lines and pulley systems, insurance policies and chemical analyses, notwithstanding those select moments of its heightened presence foregrounded in the discussion above. But as Michael Osman has argued, processes of modernisation only very rarely expressed themselves through buildings as embodiments of normative ideas about progress and the future; rather they were enacted “through intersections of management with technology and physical infrastructure that operated on the environment and the economy to constrain the errors and deviations endemic to a society invested in growth.”⁶⁴

Managing growth also remained at the core of the British phosphate industry in the Pacific following the establishment of the BPC in 1920. The vast phosphate deposits remaining on Nauru and Banaba were exclusively set aside for Australia, New Zealand and the United Kingdom, ensuring that “the Empire” had leverage in the international phosphate trade and securing fertiliser at cost price for producers in the former colonies for decades to come (Fig. 12).⁶⁵ Any BPC profits were reinvested in the upkeep and improvement of the operations, as well as covering a portion of the expense of administering British possessions in the Pacific. This vertically integrated production enabled the BPC to control market supply and therefore price, which in turn reduced the financial

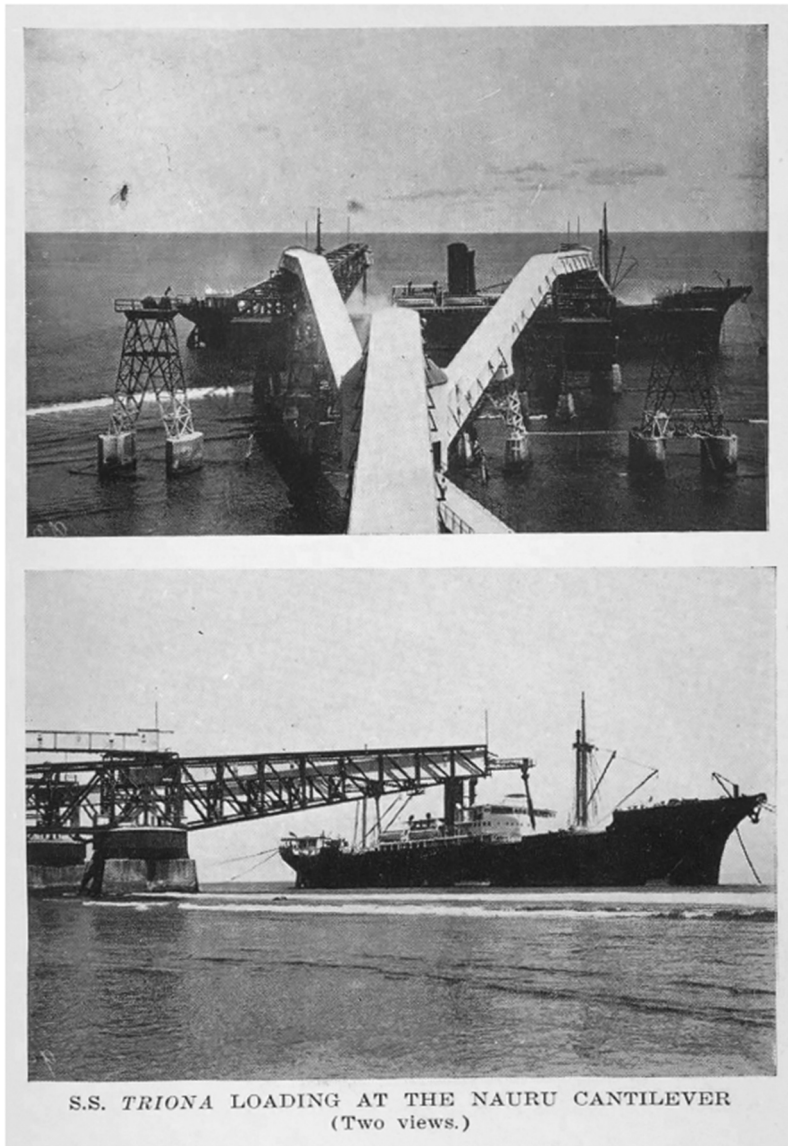


Figure 12. The British Phosphate Commission's docking and loading facilities at Nauru, c.1930. Source: Albert Ellis, *Ocean Island and Nauru: Their Story* (Sydney: Angus & Robertson, 1936), 196.

burden of production.⁶⁶ In the 1930s and '40s' global food shortages led to "the rise of a new model of global food politics" in which Britain vied for positions of influence, providing seeds, agricultural machinery and, crucially, fertiliser to countries in Asia and Africa via the World Food Board.⁶⁷ In these ways, too, the legacies of Arundel's business empire were recapitulated throughout the twentieth century as a means of installing Britain at the

centre of a globalising world order. By the time the BPC terminated its operations in 1979, close to 90% of the surface of Banaba had been removed, displacing Banabans to Rabi Island in Fiji (on land that had belonged to Lever's Pacific Plantations Limited ever since Lever and Arundel had reached their agreement forty years earlier while forming the PIC) and irreversibly altering the topography and ecology of the island. Nauru was also deemed uninhabitable by the late 1960s and a failed attempt was made to relocate the Nauruan population to Curtis Island off the coast of Queensland. Decolonisation movements protesting the wholesale ecological devastation of both islands and the entrenched under development of traditional owners eventually led to the closure of all the BPC's operations by the 1980s.

The evolving institutional anatomy of Arundel's Pacific enterprise exemplifies how non-state actors went about reordering the world in the name of British progress. Neither Arundel nor any of his contemporaries were motivated by simplistic imperialist motives; rather the notion of empire-development provided an interpretative lens through which Arundel, Stanmore, Lever, Ellis and others naturalised their extraction of almost incomprehensible levels of wealth from the Pacific. And while empire legitimated their aggressive expansionism, the same also applied in reverse: increased commercial activity ostensibly required a British regulatory presence in keeping with expectations about the role of Britain as a global stabilising force. To be clear, prior to the establishment of the BPC in 1920, the functional and strategic connections between any of the business ventures considered in this paper—Arundel & Co., the PIC or the PPC—and the political agenda of any given British state—the United Kingdom, Australia or New Zealand—were incidental and opportunistic at best. But establishing legal and political conditions in line with the objectives of capital has always been a core tenet of liberal governance, such that rather than immediate and unilateral, the relationship between Arundel's commercial interests and British statecraft are perhaps better understood as imbricated, flexible and interdependent.⁶⁸ Engaging the dissipated condition of the architecture involved in Arundel's business empire therefore not only highlights the limited utility of an architectural historiography wedded to traditional preoccupations with objecthood and authorship, but also reveals new sites of analysis within the much broader history of Greater British attempts to assume and maintain positions of global governance.

Notes

1. See in particular James Belich, *Replenishing the Earth: The Settler Revolution and the Rise of the Anglo-World, 1783–1939* (Oxford: Oxford University Press, 2011); Niall Ferguson, *Empire: How Britain Made the Modern World* (London: Allen Lane, 2004).

2. See Duncan Bell, *The Idea of Greater Britain: Empire and the Future of World Order, 1860–1900* (Princeton, NJ: Princeton University Press, 2007). See also Richard Devetak, “Historicizing Liberalism and Empire: On Duncan Bell’s Reordering the World,” *The Disorder of Things*, accessed 14 August 2022, <https://thedisorderofthings.com/2017/08/14/historicising-liberalism-and-empire-on-duncan-bells-reordering-the-world/>.
3. “The Centenary of Australia,” *Sydney Morning Herald*, 27 January 1888, 3.
4. Bell, *The Idea of Greater Britain*, 14–15.
5. For an example of the latter, see G. A. Bremner, “‘Some Imperial Institute’: Architecture, Symbolism, and the Ideal of Empire in Late Victorian Britain, 1887–93,” *Journal of the Society of Architectural Historians* 62, no. 1 (March 2003): 50–73.
6. Bell, *The Idea of Greater Britain*, 7.
7. Bremner, “‘Some Imperial Institute,’” 51; 63.
8. Charles Wentworth Dilke, *Greater Britain: A Record of Travel in English-Speaking Countries during 1866–7* (London: Macmillan & Co., 1869).
9. Bell, *The Idea of Greater Britain*, 24.
10. Dilke, *Greater Britain*.
11. On the concept of “corporate sovereignty,” see Joshua Barkan, *Corporate Sovereignty: Law and Government under Capitalism* (Minneapolis, MN: University of Minnesota Press, 2013). A more detailed study of how this concept applied within the British empire is Philip J. Stern, *The Company-State: Corporate Sovereignty and the Early Modern Foundations of the British Empire in India* (Oxford: Oxford University Press, 2011). On “extrastatecraft,” see Keller Easterling, *Extrastatecraft: The Power of Infrastructure Space* (London: Verso, 2014).
12. Robert Langdon, “Arundel, The Shy Cecil Rhodes of the Pacific Islands,” *Pacific Islands Monthly*, 45, no. 4 (1 April 1974), 59–61.
13. The term “institutional anatomy” comes from Bowen. See H. V. Bowen, *The Business of Empire: The East India Company and Imperial Britain, 1756–1833* (Cambridge: Cambridge University Press, 2006), x.
14. D. K. Fieldhouse, *Unilever Overseas: The Anatomy of a Multinational, 1895–1965* (London: Croom Helm; Stanford, CA: The Hoover Institution Press, 1978), 24.
15. Katerina Teaiwa, “Ruining Pacific Islands: Australia’s Phosphate Imperialism,” *Australian Historical Studies* 46, no. 3 (2015): 375.
16. G.A. Bremner, “Tides that bind: Waterborne trade and the infrastructure networks of Jardine, Matheson & Co.,” *Perspecta* 52 (2019): 43.
17. Duncan Bell, *Reordering the World: Essays on Liberalism and Empire* (Princeton, NJ: Princeton University Press, 2016), 2.
18. Maslyn Williams and Barrie Macdonald, *The Phosphateers: A History of the British Phosphate Commissioners and the Christmas Island Phosphate Commission* (Melbourne: Melbourne University Press, 1985), 6.
19. Williams and MacDonald, *The Phosphateers*, 6. Gregory T. Cushman, *Guano and the Opening of the Pacific World: A Global Ecological History* (Cambridge: Cambridge University Press, 2013), 93.
20. Williams and MacDonald, *The Phosphateers*, 7.
21. In late 1899, for example, Arundel wrote to the Secretary of the American Board of Foreign Missions in Boston, MA seeking permission to “purchase from you, sufficient land to erect Trading stations on the following Islands where we understand, you have mission stations.” Arundel to Secretary, 19 December 1899, National Archives of Australia (NAA) 443, 885.
22. Cushman, *Guano and the Opening of the Pacific World*, 94.

23. For example, the Austral Freezing Works and the Colonial Sugar Refining Company in Sydney, Cuming Smith & Co. in Melbourne and Bowden Brothers & Co. in Yokohama. See correspondence files in NAA 443885.
24. At Raine Island, for example, J. T. Arundel & Co. used six furnaces to dry the wet guano prior to shipping. These furnaces were manufactured by Cleveland Foundry in Townsville and most likely repurposed when the company eventually relocated to the Wellesley Islands in the Gulf of Carpentaria. See Harry Evans Maude, "J.T. Arundel and Raine Island," 1989, The University of Adelaide, H.E. Maude Digital Archive, Part II, Series 4, Section 8: Correspondence with Raine Island Corporation.
25. Williams and MacDonald, *The Phosphateers*, 7–8.
26. Bell, *The Idea of Greater Britain*, 12.
27. L. Hallett, "A History of Henderson & Macfarlane Limited," Pacific Manuscripts Bureau (PMB) MS 62, Australian National University.
28. H. E. Denson, "Valuation of Land, Buildings and Plant at the Stations of Messrs Henderson & Macfarlane in the Eastern Pacific," NAA 399137.
29. Fieldhouse, *Unilever Overseas*, 453.
30. Chamberlain as cited in Winks, *British Imperialism: Gold, God, Glory* (New York: Holt, Rinehart and Winston, 1967), 80. Arundel to Chamberlain, 15 June 1897, Arundel Correspondence, PMB MS 293, Australian National University.
31. Cited in Langdon, "Arundel," 59–61.
32. For an overview of this correspondence see Paul Knaplund, "Gladstone—Gordon Correspondence, 1851–1896: Selections from Private Correspondence of a British Prime Minister and a Colonial Governor," *Transactions of the American Philosophical Society* 51, no. 4 (1961): 1–116.
33. Judith Bennett, *Wealth of the Solomons: A History of a Pacific Archipelago, 1800–1978* (Honolulu, HI: University of Hawaii Press, 1987), 127–28.
34. "Pacific Islands Co. Ltd.," Solomon Islands Historical Encyclopaedia, 1893–1978, accessed 10 March 2022, <https://www.solomonencyclopaedia.net/biogs/E000222b.htm>.
35. Williams and MacDonald, *The Phosphateers*, 10.
36. Henry Denson to Arundel, July 1899, cited in Williams and MacDonald, *The Phosphateers*, 11.
37. Albert Ellis, *Ocean Island and Nauru: Their Story* (Sydney: Angus & Robertson, 1936), 57.
38. Later geological surveys suggested the PIC's early estimates at Banaba were fifty percent lower than what the island could in fact be expected to produce.
39. See correspondence between Murray, Stanmore, Arundel and Crosby, 27–29 March 1902, PMB MS 493; 29 October 1902, PMB MS 493.
40. Bennett, *Wealth of the Solomons*, 128.
41. Fieldhouse, *Unilever Overseas*, 461.
42. For a discussion of how shares were shifted by Lever from the PIC to the PPC, then to Lever's Pacific Plantations Limited and ultimately to Lever Brothers see Fieldhouse, *Unilever Overseas*, 456–58.
43. Ellis, *Ocean Island and Nauru*, 54; 51.
44. Ellis, *Ocean Island and Nauru*, 243.
45. Correspondence between Campbell Telfer and Arundel, 1907 as cited in Williams and MacDonald, *The Phosphateers*, 70.
46. Stanmore to Arundel, 22 February 1899, PMB MS 493.
47. Stanmore to Arundel, 13 November 1902, PMB MS 493.
48. Stanmore to Arundel, 17 October 1902, PMB MS 493.

49. Ellis, *Ocean Island and Nauru*, ix.
50. Ellis, *Ocean Island and Nauru*, 98.
51. In German East Africa, F. H. Schmidt had supplied numerous prefabricated dwellings throughout Dar es Salaam that were occupied by high-ranking officials and, in Tsingtao, the company had provided the German barracks, government buildings, hospitals, factories, offices and villas as well as civil engineering services. For a discussion of the significance of F. H. Schmidt within German colonial, commercial and humanitarian networks, as well as its impact on modern architectural discourse in Germany, see Itohan Osayimwese, *Colonialism and Modern Architecture in Germany* (Pittsburgh, PA: University of Pittsburgh Press, 2017), 210–25.
52. J. M. and H. E. Coane, “Report on Visit to Nauru and Ocean Island, by J. M. Coane (J. M. & H. E. Coane) May, June & July 1907,” 7, NAA 425839.
53. Coane and Coane, “Report on Visit to Nauru and Ocean Island,” 5.
54. In later years, J. M. and H. E. Coane developed designs for a large cantilever loading arm and conveyor belt system that could pivot to reach vessels moored in deeper water at Nauru. The cantilever design was “placed before various leading engineering firms in the United Kingdom” before the tender was awarded to Henry Simon Limited in Manchester. The Coanes were heavily involved in their profession in Victoria. See Roger J. Southern, “John Montgomery Coane (1848–1923),” *The Australian Dictionary of Biography*, accessed 28 March 2022, [https://adb.anu.edu.au/biography/coane-john-montgomery-5692#:~:text=John%20Montgomery%20Coane%20\(1848%2D1923,came%20to%20Australia%20about%201867](https://adb.anu.edu.au/biography/coane-john-montgomery-5692#:~:text=John%20Montgomery%20Coane%20(1848%2D1923,came%20to%20Australia%20about%201867).
55. See Engineering Reports – Coane – 1907 to 1911, NAA 425839.
56. Coane and Coane, “Report on Visit to Nauru and Ocean Island,” 8.
57. Cushman, *Guano and the Opening of the Pacific World*, 124.
58. Cushman, *Guano and the Opening of the Pacific World*, 123.
59. Cushman, *Guano and the Opening of the Pacific World*, 110.
60. Ellis, *Ocean Island and Nauru*, 282–93.
61. For example, an extract from the *Sydney Bulletin* dated 19 January 1901 that Arundel sent to a senior partner of Cuming Smith and Co. in Melbourne, which reads: “Last season S.A. farmers paid (or owed) £135,000 for 26,250 tons artificial manures, 95% of which were phosphates. This season they will use more.” Arundel to Charles Campbell, 28 January 1901, NAA 443885.
62. See Teaiwa, “Ruining Pacific Islands,” 383–84.
63. Lord Leverhulme to Bernard Balding as cited in Williams and MacDonald, *The Phosphateers*, 131.
64. Michael Osman, *Modernism’s Visible Hand: Architecture and Regulation in America* (Minneapolis, MN: University of Minnesota Press, 2018), viii.
65. Williams and MacDonald, *The Phosphateers*, 3.
66. Fieldhouse, *Unilever Overseas*, 449.
67. Ruth Jachertz and Alexander Nützenadel, “Coping with Hunger? Visions of a Global Food System, 1930–1960,” *Journal of Global History* 6 (2011): 118.
68. Barkan, *Corporate Sovereignty*, 10–12.

Disclosure Statement

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