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Acosta, Purbrick and Ribas work collectively on the *Traces of Nitrate* project (www.tracesofnitrate.org).

Trafficking the Earth: Documents on Nitrate, Copper and Capitalism

Ignacio Acosta, Louise Purbrick, Xavier Ribas

ABSTRACT

Trafficking the Earth documents the extraction of copper and nitrate from the Atacama Desert, Chile, and the accumulation of their values in metropolitan sites, the City of London and the houses of the British merchants in particular. Presented here as a photo-essay, it juxtaposes words and images to create constellations of meaning intended to disrupt a linear narrative of a past running smoothly into the present. The essay draws upon and tries to demonstrate a documentary practice that captures the collisions of time and the connected spaces of copper and nitrate mining as exemplary of an extractivist economy. The subject of the photography is the surplus of mining, its ruins, rubble and waste, which is offered not as a straightforward set of pictures but rather as perspectives through which the effects of global capitalism can be understood.

KEYWORDS

extractivism, photography, copper, nitrate, mining, Chile, Atacama



Fig. 1 *Trafficking the Earth*, installation at Museo de Arte Contemporáneo Universidad de Chile, Santiago, Chile, 2017.

Introduction

Trafficking the Earth is a large-scale art work comprised of three hundred and thirty-six photographic images held by the Museo de la Solidaridad de Salvador Allende, Santiago, Chile (Fig.1). Each one of these images documents a fragment of the history of mining in Chile from the late nineteenth century to the present day, from the occupation of the Atacama Desert by British merchant houses that speculated in nitrates to its exploitation by global copper mining corporations.

Contrary to what the previous sentence may suggest, however, *Trafficking the Earth* does not translate the extractivist project in Chile into a linear narrative of the inevitably unfolding logic of capitalist development leading to a neoliberal prototype: the export of mineral life overseen by an authoritarian regime that refuses to recognise rights in land and labour until they are detached from their source, transformed into property and exchanged as commodities through the global market of financial capitalism. This happened, and is happening, but remains an unseen, unequally shared everyday reality. Rather, *Trafficking the Earth* explores the notion that concentrated simultaneous attention upon at least two different spatial and temporal events is required to acknowledge the close connection between the distant ruptured landscape of the Atacama Desert, its surface exploded to fire out caliche rocks containing nitrate or carved away by high-powered diggers of open cast copper mines, and the here and now, right now, the moment of reading this introduction to the following photo-essay. Ductile copper wires carrying the electrical signals of global communications technologies enabled its production on laptops often switched on for all the authors' waking hours. The connections across time and space caused by extraction, export and exchange

of minerals are lost in a linear narrative that might explain history but flattens a lively political ecology into a set of predeterminations.

The accumulation of documents in *Trafficking the Earth* into a dense visual archive is a demonstration of the weight of history; the apparently arbitrary arrangement of one image lined up adjacent or above or below another displays the uneven effects, the unequal and unfair legacies of extraction. Juxtapositions are collisions of time. Suppressed spatial relationships of exploitation can be seen. Entanglements of past and present are made visible.

These visual effects are only partly reproduced here in this photo-essay comprising twenty-six images presented as thirteen diptychs. The first pairing juxtaposes Xavier Ribas's City of London image of finance office workers at the site of a former merchant house trading in nitrate leisurely eating lunch in a gentrified and greened over urban environment, with Ignacio Acosta's photograph of the bare, scored earth above El Teniente copper mine. Placed side by side, separated geographies can indicate the transfer of wealth and freedom that is all too often and too easily unacknowledged.

The final image pairing in the article aligns the residue of nineteenth century nitrate mining, one of the slag heaps that have shaped the surface of the entire Atacama, and the remains of Dr Salvador Allende's Presidential rooms after his death on 9 September 1973, the day the Popular Unity government was overthrown by a military coup. One was taken by Ribas at the former nitrate *oficina*, Paposo, in 2013, the other is a press image found by him. Both show the spoils of history but the visual analogy is no mere aesthetic device. The Popular Unity government elected in 1970 and led by Allende nationalised Chile's nitrate and copper mines as part of their wider socialist economic programme. General Pinochet's military dictatorship, installed by a U.S.-backed coup, pursued a free market policy of privatisation of natural resources following the imprisonment and torture of the left-wing workers who had brought Popular Unity to power.

Perhaps you get the picture. The significance of each image in the sequence between the first and last diptych will lie across and between them, and will be uncovered in the act of reading the past in the present, history in geography, time in space. The violence of extraction evident in one image can be inscribed onto another. Such a reading, we would like to suggest, is an act of resistance to the linear narrative of neoliberalism.

I



Fig. 2 Site of former merchant house trading in nitrate, City of London (Ribas 2013)



Fig. 3 El Teniente underground copper mine, Comuna de Machalí, Atacama, Chile (Acosta 2014).

Industrial mining opens up a material and historical fracture; it creates a break in landscapes and their rhythms of life that is inevitably violent. The Earth's surface is shattered in order to reach the rocks beneath and the minerals they contain. The extraction of the material of the Earth begins with an explosion sufficiently forceful to rip apart a solid foundation to force openings for the deep tunnel mining or to expose layers of earth to be quarried. Displacement follows. All is irreversible. The material that is removed is never returned. The composition of the Earth is changed in shape and substance. The historical fracture created by mining ruptures geological time. Pieces of the deep past are ripped out and sent into the jolting, jarring, speeding lines of capitalist temporality.

II



Fig. 4 “Group of Descripiadores,” *Oficina Alianza and Port of Iquique 1899*, Album 12, Museo Universidad de Navarra, Spain



Fig. 5 María Elena nitrate town, Atacama, Chile (Ribas 2011).

British interest in Chilean copper mining began in the moment of its independence from Spain in 1818. In that year, John Miers visited to examine copper deposits and consider establishing smelting plants. In his journal, *Travels in Chile and La Plata*, Miers wrote:

Copper of fine quality was said to be procured in abundance from the mines of Chile, and could be purchased for about half the price it bore in the English market. Nearly all copper raised in the country was exported in its crude state to the East Indies, its islands, and Chile, in return for manufactured goods; and as all the copper sheathing consumed in the extensive shipping building there carried on was sent to England, the inference was irresistible, that, upon the given data, an immense fortune might rapidly be made in the proposed speculation. (1-2)

Copper mining spread but copper smelting did not. By mid to late nineteenth century, more copper was extracted from Chilean lands than anywhere else in the globe, yet the industrial processes of smelting, which produced copper in its higher value commodity forms, did not follow at the same pace or place. Copper was mined but not manufactured in Chile. It was extracted for export. Britain, closer to the sites of copper consumption, remained the leading force in the more highly capitalised copper smelting process and benefitted from Chile’s need for high temperature burning coal. British coal fuelled copper then nitrate extraction and fired the steam trains that transported these natural resources for export (Culver and Reinhart; Girvan; Valenzuela).

One of the most important copper capitalists, Charles Lambert, and one of the richest men in Latin America, had started copper smelting in Chile. He opened *Las Compañías* in the Coquimbo sulphide mining region in the 1840s. Its smelting works comprised seventeen industrial ovens and employed two hundred workers (Figueroa). Copper ores from mines in Brillador, Panucillo, Huamalata and Totalillo, some of which were owned or at least controlled by Lambert himself, were brought by mules to *Las Compañías*. Smelted copper purified to seventy per cent was carried by clippers around Cape Horn to Swansea, South Wales, and there refined again to reach almost hundred per cent purity.

Las Compañías did not last. Coquimbo's sulphide mines had become exhausted by the 1880s and deforestation decreased nearby fuel supplies for smelters. Copper was still sent to Swansea but without significant industrial processing or substantial contribution to the local Chilean economy. Charles Lambert followed his exports to Swansea with his two daughters. Both married into the family firm of Henry Bath and Sons, another important copper trader who had been amongst those who had established the ring of the London Metal Exchange in 1877. As the richest copper mines became depleted, other British merchant houses, such as Antony Gibbs and Sons, moved their accumulated capital into nitrate mining.

III



Fig. 6 Louise Purbrick examining *Oficina Alianza and Port of Iquique 1899*, Universidad de Navarra, Pamplona (Ribas 2012).

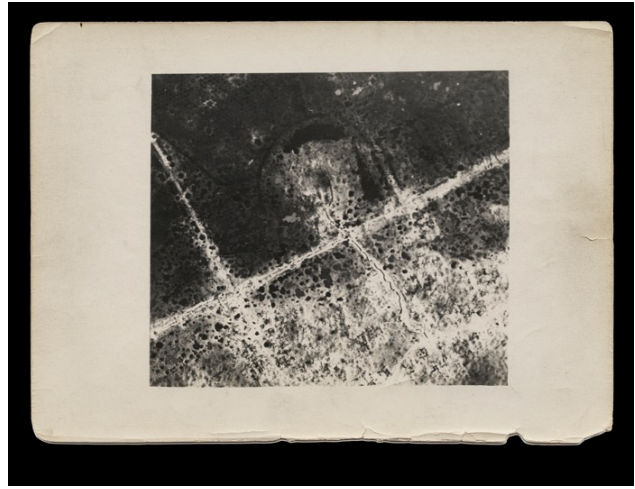


Fig. 7 Aerial photograph of the Western Front during the First World War, c.1918.

In 1860, José Santos Ossa, a Chilean adventurer, discovered *caliche* in Cobija. He was granted a tax-free concession from the Bolivian government, whose territory then extended into the Atacama Desert, to mine and export the nitrate derived from the *caliche* rocks. He tried to establish his own *oficina*. Without transport infrastructure, however, he was dependent upon pack mules and his works failed. Ossa was bought out and the Antofagasta Nitrate and Railway Company with English partner Antony Gibbs and Sons, worked the concession (O'Brien). The take-over is of great significance in the history of nitrate trafficking. In 1878, the Bolivian National Assembly ruled to impose an export duty on the Company, to raise a tax on nitrate extracted by an industry dominated by the British. They refused to pay. The Chilean government protested that imposition of export duty broke an 1874 treaty allowing tax-free operations in contested border zones. Diplomatic threats failed. The Antofagasta Nitrate and Railway Company's property and produce was confiscated. An auction was planned for 14 February 1879 but then the Chilean Navy occupied the port of Antofagasta. The War of the Pacific had started; nitrate was its fuse.

Chile won out over an alliance of Bolivia and Peru, increasing its landmass by a third to incorporate the Atacama Desert and Pacific ports. Then, the desert was sold. The Chilean government, under pressure from London investors seeking compensation for their loss of Peruvian bonds in the nitrate fields that were now part of its territory, instead allowed capitalist speculators, who had bought up war-devalued certificates, the right to mine (O'Brien). John Thomas North, who became known as the Nitrate King, and his partner Robert Harvey, bought mines in this way. Nitrate's transformation, its extraction from a mineral to chemical, from *caliche* to commodity, altered the desert itself. Material transformation sparked historical transformation: realigning borders in South America and routes out to Europe. The Atacama Desert was no longer a national landscape of Peru, Bolivia or Chile but incorporated into a geography of global capitalism; it was a "satellite" of an economic system (Gunder Frank), a location of mines, a site of extraction of mineral wealth and financial value, the riches of the Earth's crust assimilated to capital.

IV

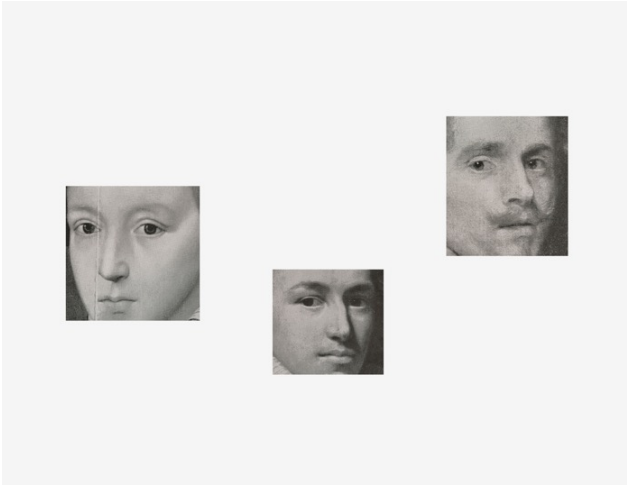


Fig. 8 Details of three paintings owned by Henry Hucks Gibbs listed for sale in Sotheby's *Catalogue of an Important Collection of Paintings the property of the Rt Hon. Lord Aldenham*, 24 February, 1937 (Ribas 2012)



Fig. 9 Photograph taken of Oficina Alianza in 1907 by Mabel Loomis Todd. Mabel Loomis Todd Papers, Manuscripts and Archives, Yale University Library.

Copper landscapes are capitalised spaces. Surface mining is brutally simple; claw away and haul away the earth; sift for the substances that will sell and leave the rest behind. It is the scale of excavation and extraction that requires capital: funding the fleets of machinery to dig up the earth's materials, controlling the networks through which the value of materials is turned into shares and profits. Transnational corporations characterise mining: Escondida is owned by BHP Billiton and Rio Tinto. In 2013, 2,500 of Escondida's unionised mine workers went on strike for a greater share in the \$3.5 billion dollar profits of BHP Billiton. They went on strike again in 2017 to demand that new workers were not offered contracts with fewer benefits, undermining wages of existing workers. Sub-contracted miners, whose numbers swell when copper prices rise, experience the poorest working conditions, which show little improvement from the early twentieth century to the twenty-first: four showers for two hundred workers and insufficient beds in which sleeping must be taken in turns (Jarroud).

V



Fig. 10 Masts from clippers owned by the Gibbs and Sons merchant house, Tynesfield, UK (Purbrick 2013).



Fig. 11 Mining Billboards, Route 25 Calama, Atacama (Acosta 2012).

In the factory and the field, nitrate had substance; its weight was felt as it was scooped up in a shovel or heaved up in a jute bag; the quantity shifted from desert floor to cart, cart to crusher, boiling tank to slag heap, drying floor to bag, bag to train, was measured by weariness of the nitrate worker's limbs used to shovel and heave, shovel and heave. Its agitating properties were known through their skin. Nitrate workers tied socks over their shoes and their trousers; they wound fabric around their waists to protect themselves from the scratchy substance. But, as the bags of nitrate began their journey away from the *oficina*, the substance started to assume its commodity form: a representation of material around which charges, taxes, payments, shares, circulate; it became the subject of spiralling exchanges and was no longer a substantial, industrial object.

The railway lines that ran from the desert to sea and on which nitrate changed state from material to idea, substance to value, were one of the “keys” to profits and profiteering (Blakemore). Railway companies charged nitrate companies for transportation. They overcharged. High tariffs per quintal, per a hundred weight, were demanded. A nitrate company would own several nitrate fields, nitrate *oficinas* and a warehouse in the port of Iquique but were dependent upon the railway. In 1887, John Thomas North bought 7,000 shares in the Nitrate Railways Company, owned by the Peruvian Montero brothers but registered in London in 1882. The following year, he became company director. Henry Hucks Gibbs, head of the merchant house Antony Gibbs and Sons, complained to the British Foreign Office that “the monopoly of the Nitrate Railways was weighing unmercifully upon British capital invested in the Nitrate works” (Brown 235).

At the point of export, as the bags of nitrate were loaded onto small vessels called lighters to be hauled onto sailing ships at anchor at the Pacific ports of Iquique or Pisagua, the Chilean government imposed their tax per quintal. High production of nitrate delivering high volumes of export was in the Chilean national interest: more nitrate accrued more revenue. But nitrate exported in large amounts lowered prices in world markets. It was in the interest of nitrate companies to restrict production, reduce exports and raise prices. Monopolies reigned. Successive combinations of competing companies, that is, a series of nitrate mining monopolies, were established to regulate production. Over-production was a problem for nitrate capitalists but the source of income for Chile. Nation and market were fatally opposed. Indeed, in the second of three combinations, market divided the nation, and set Congress against the Presidency in the Civil War of 1891. The economic interests of British capital, the nitrate

mine owners, nitrate merchants and their bankers, were served by Congressional opponents to President José Balmaceda. He had attempted to intervene in the nitrate industry to stop the transformation of the Atacama into “simply a foreign factory” (Brown 235). He lost. Defeated in the war, Balmaceda took his own life. And, Chilean control of the nitrate fields was “lost forever,” according to Gunder Frank (38). Immaterial market values took hold of the salty scratchy substance of the desert surface.

VI



Fig. 12 Aerial view of Chuquicamata copper mine, Atacama, 2013, Servicio Aerofotogramétrico de la Fuerza Aérea de Chile (SAF).



Fig. 13 Detail of the frame of a Pre-Raphaelite painting acquired by the copper merchant George Holt, Sudley House, Liverpool 2015 (Acosta 2015).

Most of the copper in circulation across the world, whether smelted from newly mined ores or recycled from scrap, has been extracted from Chilean land. Seven of the 20 largest copper mines are in Chile including the very largest, Escondida, in the Atacama Desert. 1.2 million metric tonnes of copper were extracted from this Antofagasta mine in 2017 (International Copper Study Group). Escondida is, as with other Chilean copper mines, an open pit. Open pits are surface mines; their surface is simply clawed away: layers of the earth covering ores are drilled, blasted, dug, hauled, crushed and loaded away using huge heavy machinery: pneumatic drills, rotary drills, electric drills, diesel drills, drag line shovels, loaders, dump trucks. Mine workers are mechanics and machinists as well as labourers. Steps in sides of the open pit, called benches, are carved out with an army of mechanical shovels, loaders and their drivers. The vegetation, soil and rocks that once covered the ores are known as overburden and become the waste of the mine: its spoils, tailings, slag. The deeper deposits of the open pit are leached away. Acid or alkali dissolving agents are injected into the ores and the solution containing copper concentrate is pumped out.

VII



Fig. 14 House buried by slag heap, Chuquicamata (Acosta 2012)



Fig. 15 The Temple of Augustus, Windsor Great Park, Virginia Water, UK, adjacent to the house where General Augusto Pinochet lived under house arrest in 1999 (Ribas 2015).

It is the broken remains, the fragments resistant to the passage of time, either the fast pace of industrialisation or the slow sequence of the land, that reveal rupture. Waste matter is always disruptive. The broken pieces of the materials of nitrate mining scattered over the Atacama Desert are its surplus. Copper mining sites turn into waste lands. Inevitably, they become polluted and then, as inevitably, redundant. The once model town of Chuquicamata is now an incoherent sprawl of abandoned houses with cracked window panes and subsumed walls. Surplus is matter left over, not required, without value. But since it is not necessary, superfluous, its meaning can spill over, no longer contained. Surplus is too much and nothing at all; it is excess and absolute loss.

VIII

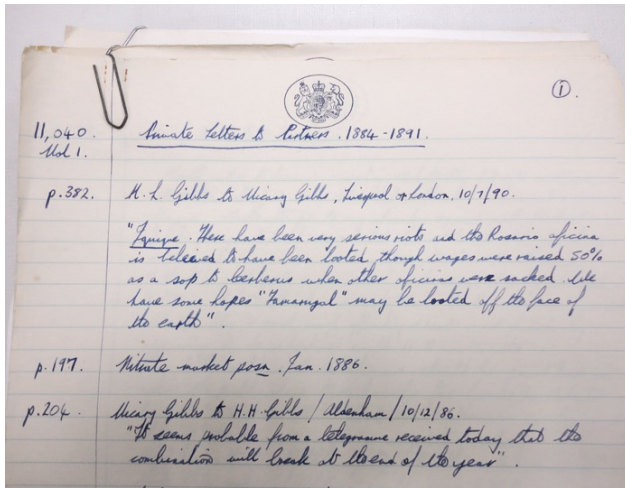


Fig. 16 “Nitrate Letters and Partners” Handwritten notes from Antony Gibbs and Sons papers, on Harold Blakemore Latin American Archive, Special Collections, J.B. Priestly Library, University of Bradford, UK (Purbrick 2014).

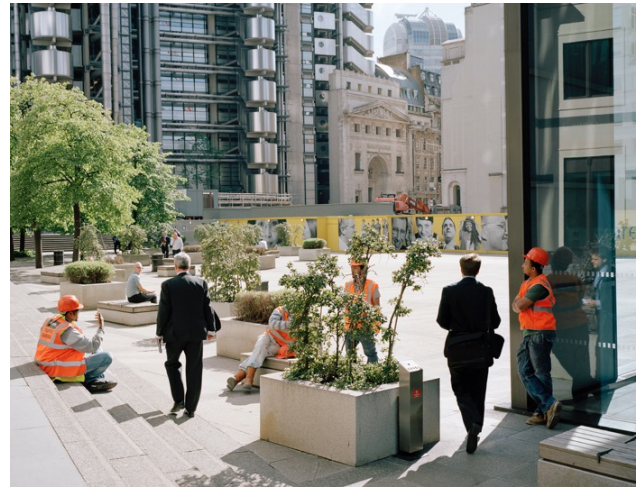


Fig. 17 Site of former merchant house trading in nitrate, City of London (Ribas 2013).

For Brett Clark and John Bellamy Foster, the loss is real; it is the life of the Earth removed and relocated to replenish the soil of industrialised lands. Once exploded from the surface of the Desert and shovelled away, nitrate disappears as a substance into commodity prices and share values; it is extracted for export then buried in the ground to enlarge European agricultural crops. Its disappearance is a transformation: the energy of the Earth extracted at one site to accumulate in another. Clark and Foster have identified a “global metabolic rift”: an “ecological imperialism” inseparable from global capitalism. Indeed, ecological imperialism was capital’s means of sustaining itself. Thus they place the British exploitation of the Atacama Desert in the longer history of the fertiliser industry that began with the extraction of guano from Chincha Islands close to the coast of Peru, and argue that the case of the nineteenth century guano and nitrate trades reveals the operation of all ecological imperialism:

The tale of guano and nitrates, which is rooted in soil depletion, involves the advance of soil science, transformation of landscapes, transfer of human populations, exploitation of nature and peripheral nations, and integration of the global economy. This case helps illustrate the workings of ecological imperialism and the emergence of a global metabolic rift that involved environmental degradation and ecologically unequal exchange. It helps us understand the environmental overdraft that contributed to European prosperity while hiding the extent of the ecological degradation of industrial capitalism. (317)

Certainly, the relationships of guano extraction established commercial arrangements that underpinned the development of underdevelopment in Latin America, as described by Andre Gunder Frank. The Peruvian Government, indebted to British bankers for loans spent in the war of independence against Spanish colonisers, claimed guano deposits as their own only in order to raise monies from their export tax in trade agreements with European merchant houses, the most significant of which was with Antony Gibbs and Sons, who became the most powerful exploiter of nitrates. The extraction of value – surplus value in Marxist terms – from satellite to metropolis, Atacama Desert to City of London, is part of a wider social metabolic relation involving not only Peru, Chile, Bolivia and Britain but also China. The rush for guano, as with all mining rushes, created labour shortages.

Importing workers to scrape off and shovel up bird excrement was rewarded by the Peruvian government at 30 pesos a head for gangs of fifty people of working age. European traders took advantage of the displacements of the Opium Wars to indenture Chinese labourers, transporting and turning them into prisoners on piles of bird shit. Their brutal enslavement began one of the many processes of appropriation of the Earth's vitality and value from the global south to the global north, an archetype of the ecology of capital. As Clark and Foster state, "[e]cologically, capitalism operates globally as a particular social metabolic order that generates rifts in underlying metabolic relations between humanity and the Earth and within nature itself" (313).

Unequal relations between people and between lands instigated in order to rip out and rake off natural resources also typified nitrate mining. Sodium nitrate followed the same routes as guano. Nitrate mining was dependent upon manual labour in an inhospitable place where nobody lived. Chilean, Bolivian and Peruvian day labourers were brought in gangs to the nitrate fields. These *enganchados* had been rounded up by contractors working for the *Asociación Salitera* or for themselves; either way, they were paid by the head. The *enganche* system began with carnival entertainment followed by the promise of payment three times the rural wage of one peso a day. But the three pesos daily wage served to bind nitrate workers to the nitrate *oficinas*; many became indebted to the contractor for their passage to the nitrate fields or the company for whom they worked because their wages were not coins but *fichas*. The *ficha*, a token carrying the company name, was the only means to buy the overpriced goods from the company stores, the tins of water or portions of food, required to sustain a working life in a desert (Monteon).

IX



Fig. 18 El Mauro tailings dump, Los Vilos, Coquimbo, Atacama (Acosta 2012).



Fig. 19 Protest during the Antofagasta plc. shareholders annual meeting in Westminster, London, UK, against the pollution and depletion of water resources in Pupio Valley, 2013 (Acosta 2013).

Excavation. Extraction. Exploitation: all are forms of loss. Capitalisation of land opens the process of commodification of substances of which it was composed. Useful matter rarified into the exchangeable value, real substance removed into its representation, is considered commodification. It is this, but it is not all: only its end game. Rarification and removal of substance into symbol is preceded by a physical geographical transfer, a transformation of mineral to metal, of buried earth into object for sale, which depletes and disappears a landscape. A dislocation takes place out of sight of the market wherein it re-appears as accumulation, although it is an actual loss of materiality and of place. Copper is taken from Chile. Only a quarter of the copper mined is smelted within Chilean borders. State-owned Codelco runs two large smelters, the rest is exported in its most unrefined state. A nine inch 170 kilometre pipe draws copper concentrates from Escondida to Colosa, a port built by Canadian company Sandwell. Value, both earthly and exchangeable, leaves the land. Excavation. Extraction. Exploitation. Then: export.

X



Fig. 20 Press image of the IRA Bishopsgate bombing, London, UK, 1993 © Press Association/Gtresonline.



Fig. 21 Explosion at Brunner Mond Ltd TNT purification plant, Silvertown, January 1917, National Archives, Kew, London (Purbrick 2014).

Nitrate has been out of place for over a hundred years and has become dirt. Dirt, as Mary Douglas observed, is “matter out of place” (Douglas 36). Nitrogen fertilisers are pollutants. A 2013 European Commission report, *Nitrogen Pollution and the European Environment*, draws attention to the human disruption of the nitrogen cycle through its industrial production. Reactive nitrogen is the form that can be absorbed by plants and people; it is an ammonia, which now exists in excess. “[H]umankind’s increasing use of reactive nitrogen in fertilisers, plastics, explosives, among many other products, leads to problems as most of the nitrogen is leaked back into the environment (4). It is not the natural nitrate of northern Chile that has amassed over the last century in the bodies of land, water and animals that inhabit them; it is the endless supply of artificial nitrogen which priced out sodium nitrate from the global market and sped the decline of nitrate mining in the Atacama Desert. The history of synthetic nitrate, however, is bound up with the trade in its natural form.

In 1913, on the eve of the war, almost two and a half million tons of nitrate was exported, of which three quarters of a million went to Germany, the largest single market (Nitrogen Products Committee). Nitrate was the German farmer’s fertiliser of choice for its quickening effect upon cultivation of beets for cattle feed. The Allied blockade not only affected food production but armaments, guns as well as grain. Lack of natural nitrate directed the German war economy towards dependency upon its synthetic forms. Fritz Haber had developed, by 1909, a laboratory process of ammonia synthesis; nitrogen and hydrogen were combined at high pressures and temperatures. Four years later, Carl Bosch engineered the industrial structures for the commercial production of Haber’s process; in 1913 BASF opened an ammonia synthesis plant in Oppau. Initially, it produced 8,700 tons ammonia for the fertiliser market but output increased seven times by 1915 to 60,000 tons to meet the demands of industrial warfare (Haber); the Haber-Bosch process sustained the German war effort (Bown). Known as “nitrogen fixation,” it created explosions from the air.

XI



Fig. 22 European Southern Observatory, Paranal, Atacama (Acosta 2010).

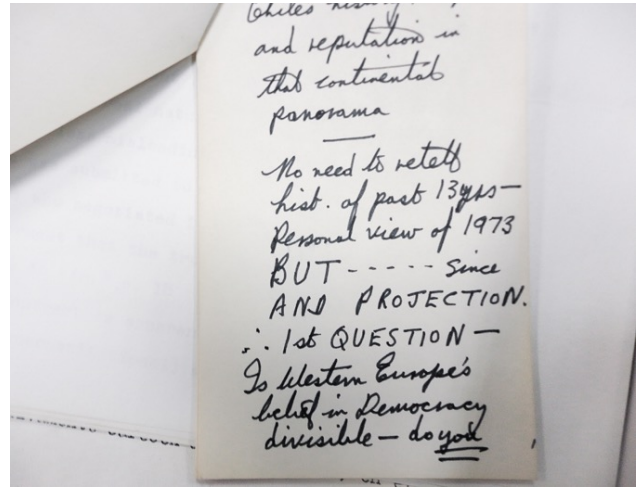


Fig. 23 Lecture notes, Harold Blakemore Latin American Archive, Special Collections, J.B. Priestly Library, University of Bradford (Purbrick 2014)

The Atacama Desert is a place in which the constellation of past and present is most evident: one of the driest environments on Earth allows for some reflection upon time itself; distant stars visible in such low humidity illuminates how the action of light precedes that of time, allowing a moment to recognise that we always live a little, just a very little, in the past. And, the Atacama also illustrates the past in the present because it is a ruin. Ruins have allegorical properties. Twentieth century Chilean political history is revealed in that of nineteenth century industrial mining. The thwarted attempt by José Balmaceda to restrict foreign control of natural resources in the 1880s foretold that of Salvador Allende in the 1970s. Nitrate and copper were nationalised by the Popular Unity government during Allende's short-lived presidency. But there is no need to rely upon literary devices such as allegory: following the U.S. instigated military coup, General Pinochet used the ruins of the nitrate industry as jails for the workers and students of the Chilean left. Oficina Chacabuco, declared a national historic monument in 1971 was reoccupied as a detention centre two years later. The port of Pisagua became a prison (Frazier). The bones of *Los Desaparecidos*, The Disappeared, dropped on the Desert.

XII



Fig. 24 Box of files, Harold Blakemore Latin American Archive, Special Collections, J.B. Priestly Library, University of Bradford (Purbrick 2014).



Fig. 25 Eucalyptus trees contaminated by irrigation water residues from Los Pelambres copper mine, Los Vilos, Atacama (Acosta 2010).

A ruin is a fallen edifice. However fragile, the ruin has outlasted those who built or dwelt within it. Its incomplete structures evoke its entire construction and its inhabitants as well as simply showing its current state: it represents what was and what is left, a presence and an absence, if you can forgive the overused academic shorthand. Ruinous but remaining, falling but not quite fallen, empty but evident, ruins are never entirely gone. They present the drama of loss. Indeed, ruins are about loss rather than absence. A ruin is the work of time and life: an allegory of existence. “Allegories are, in the realm of thoughts,” wrote Walter Benjamin, “what ruins are in the realm of things” (178). The form of an allegory suggests, or is the symbol of, an entity not exactly present in its form. An allegory is the articulation of one thing by another; it performs the fundamental work of representation itself. If we follow Benjamin and recognise the allegorical essence of ruins, their failing materiality reveals the destiny of everything. Gastón Gordillo astutely summarises: ruins, understood as “allegories of a critical disintegration” in the writings of Benjamin and his critical friend, Theodor Adorno, offer a view of the losses of history, progress, and capital (Gordillo 6). The ruins of extractivism abound. Mining structures will always be abandoned. Their dereliction zooms towards them as fast as the material beneath them is mined. When it runs low, when it is too costly to extract or is no longer considered of value, then the architecture of mining begins to empty of activity and soon stands as a monument of disuse. In the extractivist economy, the ruins of the future are ever present, not because it will be just a matter of time before a mine becomes uneconomic as market value of its mined material falls but, more importantly, because the places within which those values circulate, the offices and edifices of transnational corporations, were raised on the ruins of the Earth. We should see the ruin in the pristine (Meiskins Wood). It is there in the glass of the City of London and its gentrified squares, in the careful restorations of the heritage of English country houses, in the ordered archives of Latin American history and visible, hopefully, in the photography of these places presented in this essay.

XIII



Fig. 26 Slag heap, Oficina Paposo, Atacama (Ribas 2012).

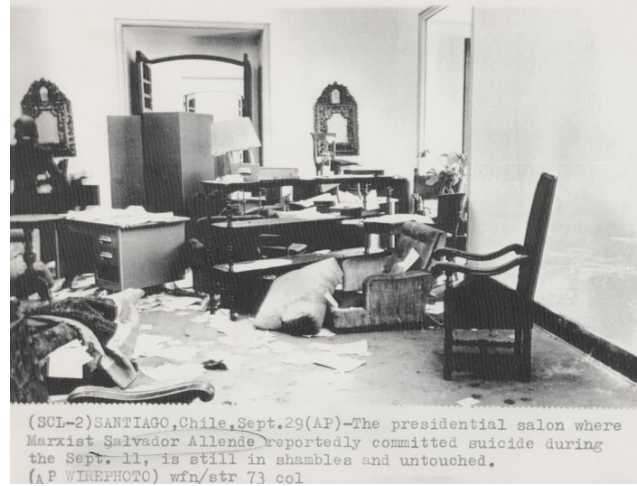


Fig. 27 “The presidential salon where Marxist, Salvador Allende, reportedly committed suicide”, 11 September 1973 © AP Photo/Gtresonline.

Gastón Gordillo has seen beyond the ruin to the matter at its margins: rubble. His examination of the remaining structures of Spanish colonialism at the moment when multinational agribusiness is flattening the forests of northern Argentina into vast soy fields shifted his perspective upon the ruin. These “allegories of a critical disintegration” appeal to “elite sensibilities” (6) that fetishize the past and are still caught up in a modern temporal distinction that place it beyond the present. An aesthetic of decay, a political aesthetic or otherwise, has no place in the present material realities of people who live among and with the remains of a colonial past. Although he does not define it as such, “rubble as a conceptual figure” (2) is offered as a de-colonial perspective that can capture the “whole material sedimentation of destruction” (10) and “help us understand the ruptured multiplicity that is constitutive of all geographies as they are produced, destroyed, and remade” (2).

Excavation. Extraction. Exploitation.
Ruin. Rubble. Waste.

At this point, almost the end of this *Trafficking the Earth* photo-essay, it seems that it should be read again to find the ruin in the pristine and see the rubble of the ruin. But what of waste? The juxtaposition in the last diptych of the slag heap of Oficina Paposo with Salvador Allende’s overturned office, a confrontation between slowly accumulated residues, *ripio*, of nitrate mining and the evidence of the theft of political power in the hurried scatter of papers or the hastily thrown furniture creates a collision and makes connection between two kinds of material and historical waste.

But are the slag heaps of Oficina Paposo or those of Chuquicamata, examples of many layered residues of mining that now compose the surface of the Atacama Desert, not waste but rubble? Not “shapeless, worthless debris” but “textured, affectively charged matter that is intrinsic to all living places” (5)? Re-casting waste as rubble shapes a “conceptual figure” of hope. However, waste has some residual historical force of its own. Waste appears both exhausted and excessive. Its layer upon layer of disregarded fragments announces that life, both geological and biological, mineral and human, has been wasted here, right here, where its leftovers lie. Waste is the inevitable surplus of extractivism, the evidence and the allegory of loss. Loss is its affective charge: an accusation against extraction and capitalism itself.

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