

THERE WAS ONCE A MINE OF GOLD IN PERU, LATER IT BECAME A COPPER MINE,
AND NOW THEY SELL THE WATER THAT COLLECTS IN THE BOTTOM

NITRATE

NITRATE

XAVIER RIBAS

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Presentation

Nitrate, the project by Xavier Ribas (Barcelona, 1960) that forms the core content of this catalogue, represents the main focus of his work between 2009 and the present day. This monographic publication, in conjunction with the research *Traces of Nitrate: History and Photography Between Britain and Chile*, elaborated by the artist at the University of Brighton alongside historian Louise Purbrick and photographer Ignacio Acosta with the support of the Arts and Humanities Research Council (AHRC), comprises a body of work which in its complexity merits consideration as an entire documentary dispositive (<http://arts.brighton.ac.uk/projects/traces-of-nitrate>). *Nitrate* represents an artistic practice with one foot in a university department and the other in the museum space; neither aspect can be understood without the other. This is because the documentary practice of Xavier Ribas brings together different approaches to research, both academic and artistic, recalling to some extent the critical tradition of photography that crystallised as an artistic genre in the 1970s: a kind of composition that demanded the combination of data and photography, with results akin to investigative journalism. Ribas draws on this working method which brings a renewed formal quality to his work, and in which format and spatial sequence of the images play a major role.

Xavier Ribas became known in the mid-1990s with his work on the spontaneous occupation of the urban periphery. He quickly became the representative of a new documentary photography: the scenes of *Sundays* (1994–97) brought him immediate recognition. In these, he recorded the habits of people who spent their free time on the wastelands surrounding industrial estates or on the new beaches of Barcelona, stolen from a working-class district in ruins. The post-Olympic Barcelona photographed by Ribas reveals the loss of centrality of traditional forms of work and the leap from an industrial society to one based on a service economy where leisure and lifestyle have taken over the urban experience. In this process of change, the city has been transformed into a place to be consumed, and with the enormous upsurge in representations of urban life, documentary photography has found in it the ideal setting to construct a critical counter-discourse.

After two decades of work, Xavier Ribas has earned a reputation as a photographer committed to the geographies of abandonment: areas on the outskirts; roadsides where prostitution is carried on or where sanctuaries have been created to mark fatal traffic accidents; borders of all kinds and conditions; and places of temporary settlement where the human presence is the butt of politics of expulsion. Over this period, during which the photography of Xavier Ribas has effectively fulfilled its documentary role, changes in its style have been minimal. His most recent works on the modern history of nitrate mining in Chile confirm that he has not substantially changed his concept of the medium. But in this case, the specific nature of the mineral in question – the mining and processing of which generate extraordinary profits and trigger processes of circulation, resignification and mutation of form – has gradually infiltrated the documentary uses of his photography. It is here that *Nitrate*, the project organised by the Museu d'Art Contemporani de Barcelona (MACBA) in co-production with the Museo Universidad de Navarra, unfolds a specific documentary potential that lies between testimony to the ruins of production – obsolete and abandoned procedures – and recollection of an episode of modern-era Western colonialism.

Research into nitrate acts as a case study re-examining in the present the policies of extractionism practised for centuries, especially in the continents of South America and Africa. As shown by contemporary records of the cumulative surplus

value generated, nitrate undergoes significant transformations: Chilean nitrate found its way into the late nineteenth-century salons of England, and its deafening explosions spread across the fields of an embattled Europe during the First World War. Sodium nitrate was a central component in the explosives manufactured by the arms industry in the early twentieth century, as well as being the basis for fertiliser production.

The symposia ‘Traces of Nitrate: Photography, Financial Capital and the Labour Movement’, jointly organised by MACBA and the Museo Universidad de Navarra in October 2013, offered an initial engagement with the different voices and viewpoints articulated in this project. To the papers given by researchers Xavier Ribas and Louise Purbrick, the events held in Barcelona and Pamplona added the contributions of Andrea Jösch, Pablo Artaza, Max Jorge Hinderer, Ricardo González and Mercedes Fernández Sagrera. Some of their reflections are collected in this catalogue, which combines the photographic research of Xavier Ribas with the critical discourse that it has generated. Documentary practice is, ultimately, only complete with the debate about the role of the image within the framework of the work itself, since it sees the production of discourse not as something foreign to photography, but as an extension of it.

Finally, we would like to express our thanks to Xavier Ribas for his generosity and close involvement in this project, and for the relationship he has long had with our respective institutions. Our thanks also to Carles Guerra, whose knowledge of Xavier Ribas’s work led to this exhibition and publication.

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Director of the Museu d’Art Contemporani de Barcelona (MACBA)

Miguel López-Remiro
Director of the Museo Universidad de Navarra





A History of Detonations, 2013
[pp. 12 and 165] Aerial view of a shelled landscape on the Western Front during the First World War, c. 1918.

UNFOLDING THE DOCUMENTARY DISPOSITIVE¹

CARLES GUERRA

Since 2009, Xavier Ribas has devoted his photographic practice to looking into the natural history of nitrate. Unlike his earlier series, in which the landscape anchored the artist's documentary and empirical engagement, nitrate unfurls a vast geography impossible for a strictly photographic vision to encompass. *Nitrate* takes the form of an essay that explores the political and geological history of Chile, linking it with flows of finance and consumption in Europe, in such a way that the geography of this material gives form to a colonial structure. The representation of this system of extraction of natural resources that began in the late nineteenth century, and that we now dare to label an *extractionist modernity*, has called for a documentary dispositive that requalifies the role of photography.

One of the central pieces in *Nitrate* shows a large expanse of the Atacama Desert, precisely where the labourers of the old nitrate *oficinas* dug the soil and broke the earth's crust to get at the caliche. The grid composition is reminiscent of the archaeological methods used to excavate the history of a site. The thirty-three photographs that make up the polyptich *Desert Trails* (2012, pp. 64–87) present a detailed orographic description of the ground and its disturbed surfaces. The foreground shows the rubble left by mining and, much further off, on the horizon, we can see petroglyphs that have survived for centuries. The historical time contained in this work, then, exceeds the time of the documentary observation, to the extent that an adequate genealogy of these rocks piled up in the desert requires a materialist approach.²

This explains why, to carry out such a project, Xavier Ribas has shifted the bounds of his photographic practice. In this body of work, practices relating to various institutions and interests have come together, such as the research in libraries and archives, interviews and fieldwork trips, as well as the gathering of miscellaneous materials. A confluence of knowledges, methods and modes of communication that overflows the bounds of photography as a medium and impels us to consider *Nitrate* as a documentary dispositive, that is to say, a collection of works that can be read both as an interrelated whole and autonomously. Most of the works comprising *Nitrate* include the photographic image alongside archival images, data, reports,

¹ Author's Note: The use of the French term 'dispositive' presents us with the problem of its translation into English; Giorgio Agamben has pointed out that 'depository' and 'apparatus' are less than satisfactory. Here I use the word 'dispositive' which, though not in common use, maintains the reference to the Foucauldian sense of the term.

² See the article by Louise Purbrick in this volume, pp. 29–38.

news items, inventories, lists and even objects, proof that the documentary dispositive can take any form except that of a photographic genre tending to fix meaning.

The definition of the term 'dispositive' presents us with a disparity of meanings, of which the most significant is, as Giorgio Agamben suggests, the 'heterogeneous group that includes virtually anything, linguistic and non-linguistic', together with 'discourses, institutions, buildings, laws, police measures, philosophical propositions, etc.', concluding that 'the dispositive itself is the network established between these elements'.³ We could go further and say that the documentary dispositive employed by Xavier Ribas replicates the formal structure of nitrate. Given that this raw material boasts a great versatility transforming its composition, its uses and even its manufacturing process, the insertion of nitrate into the networks of global trade places it at the centre of the quintessential dispositive. The natural environment of nitrate, once extracted from the earth, is the circulation of capital.

Two important series from 2009, *Melilla Border Fence* and *Ceuta Border Fence*, anticipate later formulations in Xavier Ribas's work of what David Harvey calls 'spaces of capital'.⁴ The fences that surround these two Spanish enclaves in North Africa delineate boundaries that the photographer walked from end to end, in their entirety. The installation of this double barrier forms a surveillance complex that prevents the passage of immigrants from the south. In regulating the free circulation of people, the modernising project associated with capital shows its most serious inconsistencies. These costly and sophisticated infrastructures are the heirs of the great public works that nineteenth-century photography made into emblems of the colonial mission. As Xavier Ribas says, 'in those photographs, bridges, roads, tunnels and railroads represented a notion of expanding territories, of movement, trajectories and shifting perspectives'.⁵

The views of Ceuta and Melilla show how photographic vision has passed on its functions to new technologies. In its place is a surveillance apparatus that no longer trusts to optical control. Cameras give way to temperature sensors. However, the symbiosis between photography and the expansion of capital has been reflected over time in an abundance of albums. Xavier Ribas drew on some of these for his project about the Spanish-Moroccan border; a multi-dimensional border, as the artist recalls. 'The photographic albums of public works constructed in Spain during the second half of the nineteenth century... document the process of modernisation'.⁶ In spite of the time that has elapsed, these landscapes remain trapped in a visual regime that instrumentalises them.

³ Giorgio Agamben, '¿Qué es un dispositivo?' in <http://ayp.unia.es/r08/IMG/pdf/agamben-dispositivo.pdf> (accessed 18 February 2014).

⁴ David Harvey, *Spaces of Capital: Towards a Critical Geography*. New York: Routledge, 2001.

⁵ Xavier Ribas, *Geografías concretas [Ceuta y Melilla]*. Pamplona: Universidad de Navarra, 2012, p. 9.

⁶ The collection of the Museo Universidad de Navarra has albums by James Clifford, Jean Laurent and José Martínez Sánchez to which Xavier Ribas had access while carrying out this project. See Xavier Ribas, *Geografías concretas*, p. 12.

The function of a documentary dispositive then – more than implementing techniques of observation – consists in returning to these representations of the past and exposing them to new meanings.

In this respect, the photographic album *Oficina Alianza and Port of Iquique 1899*⁷ that prompted the academic research carried out by Xavier Ribas in collaboration with historian Louise Purbrick and photographer Ignacio Acosta – undertaken in parallel to the documentary project that is *Nitrate* – remains an expression of the interests of a global company: the intention being to mobilise financial capital and stimulate investment. That is the sense in which the views of Oficina Alianza were celebrated as a solid promise of profits. With his thank-you note, the man to whom the album⁸ was presented confirmed industrial photography as a genre suspended between the discourse of art and the logic of capital. ‘If the business itself produces a correspondingly handsome result...’ – says a handwritten note conserved inside the album – it would mean that aesthetics could catalyse profit. As Allan Sekula wrote in his earlier analysis of the photographic representation of mining work, such images are in themselves ‘elements in a unified symbolic economy’.⁹ He further warned of a greater risk: ‘The possible post-romantic... reception of these photographs is perhaps even more disturbing.’¹⁰

Aware of this danger, Xavier Ribas resignifies the images of the Atacama Desert. Given the ease with which the memory of the nitrate works and the industrial past is re-evoked, he considers that the political effects of these images should be critically examined. Perhaps the most perverse of these effects is the one that extends the notion of natural resource beyond the nitrate itself to include the workers. Nitrate contaminated the workforce that was needed to remove it from the earth and put it into circulation. So it would not be an exaggeration to say that workers at the nitrate *oficinas* were exploited, as Teresa Brennan would have said, in the same way as a natural resource: without the right to representation.¹¹ All of which has led to the perception of the desert as an excessively abstract place that tends to be celebrated for its atmospheric qualities.¹² A space which it is necessary to inscribe with a specific event in order to halt the reproduction of this stereotype.

Desert Trails, the work referred to above which represents better than any other the expanse of the desert as an open and inconclusive semantic field that nevertheless invites a multiplicity of readings, ends with a photograph to one

⁷ Album in the collection of the Museo Universidad de Navarra.

⁸ Henry Hucks Gibbs, Lord Aldenham (1819–1907), received the album sent from the Oficina Alianza in July 1900, when he was the director of the merchant house of Antony Gibbs and Sons and Governor of the Bank of England. See p. 134 in this volume.

⁹ Allan Sekula, ‘Photography between Labour and Capital’, in Benjamin H. D. Buchloh and Robert Wilkie (eds.), *Mining Photographs and Other Pictures, 1948–1968: A Selection from the Negative Archives of Shedden Studio, Glace Bay, Cape Breton*. Halifax: The Press of the Nova Scotia College of Art and Design and The University College of Cape Breton Press, 1983, pp. 193–268.

¹⁰ Ibid., p. 200.

¹¹ Teresa Brennan, *Exhausting Modernity: Grounds for a New Economy*. London: Routledge, 2000.

¹² See the article by Andrea Jösch in this volume, pp. 43–46.

side of the grid showing the former headquarters of the *Unión de Trabajadores Ferroviarios Consejo de Santiago* (The Rail Workers Union of Santiago). This was the starting point for the funeral cortege of the Socialist leader Luis Emilio Recabarren on 21 December 1924 (p. 63). This single image, in its contrast to the polyptych with which it is juxtaposed, reintroduces the dialectic and cuts through the inertia of the interpretations that permeate the space of the desert. Suddenly, the desert ceases to prioritize an aesthetic perception and becomes associated with the history of the labour movement.¹³ Recabarren, founder of the Socialist Workers Party (POS) in 1912, is the figure that marks the turning point between a passive geography subject to the abuses of extractionist policies and the process of political representation that promises to emancipate the workforce.

The photographic tradition of the industrial sublime, that flirts with the fusion of the beautiful and the profitable – and with respect to which Xavier Ribas's documentary dispositive works against the grain – strives to keep alive the illusion that manpower is replaceable by installations, equipment, machines and, in the case of the mining of nitrate, by a landscape which, having assimilated the workers as natural resource, renders them invisible. Hence, what is presented for analysis in the large photographic compositions of *Nitrate* seems to be an unproductive and abandoned place. Everything suggests that capital has migrated, leaving a wake of inactivity and silence. Eventually to be relocated in the new spaces of financial capital. The eleven views of the City of London that make up the series *From the High-Rises Like Rain* (2013, pp. 140–63) represent the other extreme of the pendulum which is colonial enterprise, images in which we seem to see the origin of the capital that was invested in Chile. The long caption that accompanies them displays the official record of the network of companies involved in nitrate mining in 1908, from the London Stock Exchange Year-Book for that period (pp. 149–52). This information reminds us of the positivist nature of all documentary practice and its affinities with investigative journalism, although ultimately the data offers no substantial revelations, since it does not facilitate any verifiable connections with the locations that appear in the photographs making up the series. That link remains strategically inactive.

The most relevant and specific logic of this series on the City of London is defined by those places that, in the 1990s, were the target of bomb attacks. When attributing these explosions to the IRA, the British police used the expression 'traces of nitrate'.¹⁴ The trace of the destruction wrought by these bombings has been reabsorbed as an incentive to development that has produced a landscape of new building, and what was once a scene of trauma is now a space taken over by financial sector employees on their breaks.¹⁵ The

¹³ See the article by Pablo Artaza Barrios in this volume, pp. 47–50.

¹⁴ The IRA used fertiliser bombs in their terrorist attacks.

¹⁵ Of the eleven photographs in the series *From the High-Rises Like Rain*, only one contains a reference to the bomb attacks: a plaque in memory of the three people who died in the bombing in 1992 that was attributed to the IRA. Another possible indication of these events is

connection that the artist introduces is put forward through a mapping of the City elicited by a sequence of violent events, and this enacts an essential characteristic of the documentary dispositive: the ability to create a network out of chronologically discontinuous incidents.

Within the network created by *Nitrate*, Xavier Ribas has found space for a wide spectrum of references. The ambitious geographic and historical scope of the project generates a profusion of names and events: the cumulative surplus value of this commodity embodied by investors like Henry Hucks Gibbs (1819–1907) or John Thomas North (1842–1896); the policies on natural resources of successive Chilean presidents, such as José Manuel Balmaceda (1840–1891), Salvador Allende (1908–1973) and Augusto Pinochet (1915–2006); the Chilean Civil War (1891) and the First World War (1914–1918), in which the right to mine and commercialise nitrate was a matter of dispute; or other moments of great violence such as the massacre at the School of Santa María in Iquique in 1907, when the striking nitrate workers were brutally repressed; and even the voice of Mabel Loomis Todd (1856–1932), who witnessed both the process of nitrate extraction and the astronomical observation from the Atacama Desert of the planet Mars, and whose stay in the region took place just four months prior to the killings at Iquique.

The series that includes images from diverse sources and represents the attempt to give meaning to this constellation, is entitled *A History of Detonations* (2013) – a clear sign that the artist's preference is for an entropic order born out of relative chaos, such as would be produced by an explosion of data. The events cited above form a random sequence: Mars, Iquique, Alianza, Chacabuco, Santiago de Chile, Tyntesfield, Avery Hill, the City of London and so many other places cease to belong to real geography to form part of the discursive space created by the documentary dispositive. It is in this shared space that new correlations are formed, so that Mabel Loomis Todd might have been summing up the radical arbitrariness running through this mass of events, incidents, materials and signs with a phrase noted in an article: 'Although winter in Chile, it was summer on Mars.'¹⁶ But the documentary dispositive does not merely reshuffle historical or geographical data. It also affects the division of labour separating competences of researcher, artist and spectator/reader, and of the institutions that support them.

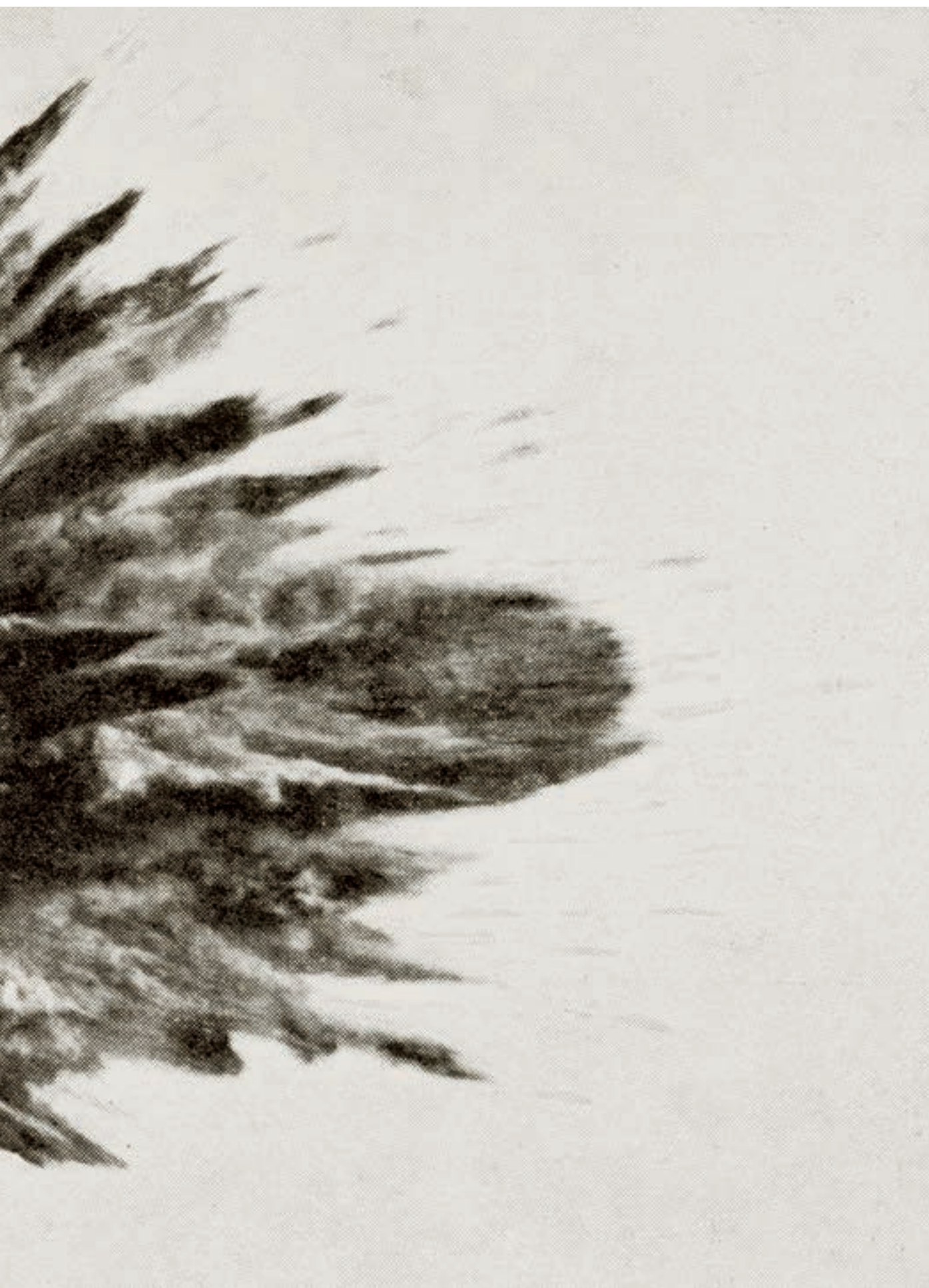
As applied by Xavier Ribas, documentary practice acquires the function of a connective, relational and extremely productive platform that, far from confirming the differences between academic and artistic research, seeks ways of representing cooperation between the two. The project is imbued with the urgent need to bring into relation institutions whose strategies of communication are, at first glance, quite different. To this end, the documentary

Norman Foster's building, constructed on the site of the Baltic Exchange, destroyed by the bombing of that year.

¹⁶ Mabel Loomis Todd, 'Our Ruddy Neighbor Planet', *The Independent* (New York), 9 April 1908. David Peck Todd Papers (MS 496B), Manuscripts and Archives, Yale University Library.

dispositive enables a regime ready to administer the meaning of photography, and the uses made of it in multiple contexts. The images of hands holding up negatives – those consulted in the taxidermy section of the Natural History Museum at Tring, featuring the famous greyhound that belonged to John Thomas North (pp. 130–31), or those made by Mabel Loomis Todd (pp. 90–100) and preserved in the library of Yale University – pinpoint the use of the archive as one of the key moments of this project. But, even more importantly, it shows that photography does not depend exclusively on a technical apparatus, but on a dispositive open to incorporating practices otherwise excluded.

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A History of Detonations, 2013
[pp. 20 and 59] Poblacion Jorge Inostroza, Iquique, 2009. Workers killed in the School of Santa María on 21 December 1907 were originally buried in an unidentified mass grave in Cementerio 2, which was demolished in the first half of the 1960s to make space for the rapidly expanding neighbourhood.

1. *Staphylococcus aureus* L.

My dear Lord Almondestown,
I am sending you the same
volume of Miss Worsley's
Album which we sent the
other day, with a hope
you will not find it
uninteresting.
I am ever, Sir,
Yours truly,
Wm. Worsley



A History of Detonations, 2013
 [pp. 22 and 57] Panoramic views of the ruins of Oficina Alianza and the surrounding landscape taken
 in December 2011 from the top of the slag heap.





A History of Detonations, 2013
IRA bomb incidents in London, 1973. [p. 24] 'Explosion outside the Old Bailey. View showing shattered cars and windows of a building opposite the Old Bailey, after this afternoon's blast.' (KeyStone, 8 March 1973). [p. 55] 'Wave of fire and letter bombs in London.... One of the fire bombs discovered today contained in a cigarette packet and wired to small batteries – pictured at today's Press Conference at Scotland Yard.' (KeyStone, 21 August 1973)



A History of Detentions, 2013
[pp. 26 and 53] Warnings of anti-personnel mines around Oficina Chacabuco, 2011. In 1971 elected Chilean president Salvador Allende declared the ruins of Chacabuco a Historic National Monument dedicated to the memory of the nitrate workers. In 1973, coup leader General Augusto Pinochet made Chacabuco a concentration camp for political prisoners. This was part of an undeclared but premeditated campaign against the historical landscape of the Chilean labour movement.

(NY28-Oct.17)CIVILIAN'S NEW MARXIST PRESIDENT-MARTIN-Dr. Salvador Allende, the Marxist president-elect of Chile, declares that neither the Communist Party nor any other group will be allowed to run his government. The 62-year-old Socialist senator, who is to be confirmed as president next Saturday, insists that "there will be no dominance or supremacy by any party." Remember that I will be president...and have the sense, the responsibility and the dignity to fill the highest post that can be granted to a man in our country," he declares. (AP Wirephoto) (amb71710F) 1970 See AP AAA Wire Story





A History of Detonations, 2013
[pp. 28 and 51] IRA Bishopsgate bombing, London 1993. Scene of devastation, Monday, showing the Hong Kong and Shanghai Bank, right, and the crater, lower left, made by a bomb concealed in a dump truck which exploded Saturday April 24, killing one, injuring over 30 and causing at least 1.5 billion US dollars' damage to London's financial district. The Irish Republican Army has claimed responsibility for the disaster'. (AP Photo/Adam Butler, 26 April 1993)

NITRATE TRAFFIC

LOUISE PURBRICK

Like the dancing wooden table imagined by Karl Marx in *Capital*, all commodities are shape shifters.¹ They appear to metamorphose. But nitrate materially changes. Its power as a substance and value as commodity lie in its capacity to change from material to immaterial state, to transform and to be transformative. Chilean nitrate is a sodium nitrate that, once processed, can be used as a fertiliser and to make explosives. It is the element nitrogen, which comprises eighty per cent of the earth's atmosphere, in this compound form that can speed or shatter life.

Capital transformation

The ore that contains nitrate, known as *caliche*, lies all over the Atacama Desert, just beneath its surface. *Caliche* was widespread, but the extraction of its nitrate was not. The driest desert in the world supplied neither water nor firewood for the refining process that required saturation and heating. There are some records of nitrate refining in Peru, above Lima, from the Spanish colonial period. One eighteenth-century account describes how 'Indians' crushed *caliche* into small pieces, soaked them in water for a day, then boiled and cooled the water to allow nitrate to crystallise. Dissolved again and dried, they were used as an explosive in silver mines.² Early nitrate works expanded on the indigenous refining process. Large inverted cones called *fondos* were filled with *caliche* and water, which was boiled then poured into *bateas*, tanks where nitrate cooled to crystallise. Mud and salt, the *ripio*, or waste of the nitrate refining remained in the *fondo*.³ While nitrate processing began before Peruvian Independence in 1821, it only developed as an industry in the Atacama Desert, then the territory of Peru, when British traders captured South American markets vacated by Spain. The 'merchant houses were the basic commercial units of British expansion' writes Michael Monteón.⁴ The desert became capitalised. Antony Gibbs and Sons, exporters of Peruvian guano, was, by 1865, a partner in the Tarapacá Nitrate Company. They had the capital, which they loaned, to create the nineteenth-century nitrate *oficinas*

¹ Karl Marx, *Capital: A Critique of Political Economy* [1867]. Harmondsworth: Penguin, 1988, p. 164.

² M. B. Donald, 'History of the Chile Nitrate Industry', *Annals of Science*, vol. 1, no. 1, 1936, pp. 37–38.

³ *Ibid.*, pp. 39–40.

⁴ Michael Monteón, 'The British in the Atacama Desert: the Cultural Bases of Economic Imperialism', *The Journal of Economic History*, vol. 35, no. 1 (March 1975), p. 118.

of the *pampa*, factories in the fields. Railway lines were laid across the desert to take *caliche* to be refined and its nitrate to the ports; tools, machinery, jute sacks were imported. Water for processing nitrate and water for nitrate workers to drink were transported. In an empty land, with nothing but explosive minerals in abundance, everything had to be supplied. The Antofagasta Nitrate and Railway Company is a case in point.

In 1860, José Santos Ossa, a Chilean adventurer, discovered *caliche* in Cobija. He was granted a tax-free concession right to mine and export nitrate from the Bolivian government, whose territory then extended into the southern Atacama. He tried to establish his own *oficina*. Without a transport infrastructure, he was dependent upon pack mules and his works failed. Ossa was bought out and the Antofagasta Nitrate and Railway Company, whose English partner was Antony Gibbs and Sons, worked the concession.⁵ 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 a British-dominated affair. They refused to pay. The Chilean government protested that the imposition of export duty broke an 1874 treaty allowing tax-free operations in contested border zones. Diplomatic threats failed. Antofagasta Nitrate and Railway Company's property and produce was confiscated. An auction was planned for 14 February 1879 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 land-mass by a third to incorporate the Atacama Desert and Pacific ports. Then, the desert was sold. The Chilean government, under some 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.⁶ 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 change: realigning borders within South America and world economic relationships. The Atacama Desert was no longer a national landscape of Peru, Bolivia or Chile but incorporated into a geography of European capitalism; it was a 'satellite' of an economic system,⁷ a location of mines, a site of extraction of material wealth, the riches of the earth's crust assimilated to capital.

⁵ Thomas F. O'Brien, 'The Antofagasta Company: A Case Study of Peripheral Capitalism', *The Hispanic American Historical Review*, vol. 60, no. 1 (February 1980), pp. 3-7; See Monteón, 'The British in the Atacama Desert', p. 120.

⁶ Thomas F. O'Brien, 'Chilean Elites and Foreign Investors: Chilean Nitrate Policy, 1880-82', *Journal of Latin American Studies*, vol. 11, no. 1 (May 1979), pp. 107-08 and pp. 113-14.

⁷ André Gunder Frank, *Capitalism and Underdevelopment in Latin America* [1969]. Middlesex: Penguin Books, 1971, p. 41.

Industrial transformation

In 1885, Robert Harvey presented a paper at the Institute of Civil Engineers in London entitled 'Machinery for the Manufacture of Nitrate of Soda at the Ramirez Factory, Northern Chili'. Formerly a Cornish engineer, Harvey had been the Inspector of Mines in Peru before being appointed to the same position in Chile, allowing him privileged information that would be realised in John Thomas North's speculations in war-devalued mining rights. Ramírez is another case in point. 'Oficina Ramirez', announced Harvey to the Institute of Civil Engineers, 'is the largest establishment of its kind in the world'. He refers not to the area of the nitrate fields, although it was indeed expansive, but to the factory that he helped to assemble:

In September, 1882, the Author received instructions from the directors of the Liverpool Nitrate Company, Limited, who own 6 square miles of nitrate grounds in the district of Ramirez, in the province of Tarapacá, to prepare plans and estimates for the construction of an oficina capable of producing from 6,000 to 6,500 tons of nitrate of soda per month, this total being 1,000 tons more than was in the power of the largest oficina then extant. In January, 1883, the plans and specifications were laid before the directors and approved of, and the Author was instructed to order the necessary machinery. Six steel boilers, 30 feet long by 6 feet 6 inches, double flues, with six Galloway tubes, were constructed by Messrs. R. Daglish and Co., of St. Helen's. Twelve boiling-tanks with steel condensing tubes, ninety crystallizing-tanks, two feeding-tanks, a five-compartment washing-tank, as well as three circular tanks, 25 feet in diameter by 12 feet high, came from the works of Messrs. Preston, Fawcett, and Co. The locomotives and rolling-stock, with a length of 2 1/2 miles of portable railway, as well as two semi-portable engines for the wells, were made by Messrs. John Fowler and Co. of Leeds, and the engines, pumps, machine-tools, &c., by Messrs. Tangye Brothers. And three crushing-machines were made by Messrs. North, Humphery, and Dickinson, of the Tarapacá Foundry, Iquique.⁸

His are details of the industrialisation of the desert. With the exception of the crushing-machines, made in Iquique, all machinery was imported from Britain. Nitrate trafficking was entwined with trafficking capital in its most material form: the structures of industrial production. These structures constituted a system, a simultaneous import. The multitude of metal tanks at Ramírez, and across all the *oficinas* of Atacama, were arranged according to the Shanks system, named after English patent holder James Shanks. His deployment of the gravitational flows of different liquid densities to increase the industrial efficiency of soda manufacture was applied by mining engineer

⁸ Robert Harvey, 'Machinery for the Manufacture of Nitrate of Soda at the Ramirez Factory, Northern Chili', Paper no. 2086, *Proceedings of the Institute of Civil Engineers, 1884-85*, pp. 337-38.

James Humberstone to the separation, or lixiviation, of saturated nitrate from the salt and mud of *caliche* rock. Increased industrial capacity and efficiency, more machines in working order, increased the need for nitrate miners, for more labour. British nitrate companies, such as those run by John Thomas North or Antony Gibbs and Sons, planted the machinery and created industrial colonies.

William Howard Russell, who accompanied John Thomas North on a much-publicised journey to Tarapacá in 1889, said of Ramírez:

The works appear to be very extensive and complete. A great collection of boilers, tanks, engines, two chimneys rising in the midst, workman's huts and residences of the staff... On the branch railway a long train of wagons loaded up with nitrate bags for the port was awaiting haulage, and the explosions of the *tiros* near at hand indicated great activity and working power.⁹

Russell's travelogue was serialised in the *Illustrated London News*. Other periodicals, *The Economist* in particular, accused John Thomas North of manipulating a nitrate market prone to booms and slumps and offering only promises of profit based on illusions.¹⁰ Russell, celebrated reporter of the Crimean War, accepted an invitation to join North's tour but 'to judge for myself and report what I saw'.¹¹ He provided details of nitrate mining that confirmed it was a business of some substance. Russell described its processes of extraction for his London audience in an industrial taxonomy, a scientific ordering that serves as a truth: raw materials, machinery and workers were carefully classified. A *barretero* sinks a shaft; at the base of the shaft, a *destazador* digs a *taza*, or hole; a *particular* lights the charge that explodes the surface layers of the desert.¹² Another observer, Mabel Loomis Todd, who accompanied a North American astronomical exploration in 1907, uses the same taxonomic strategy of explanation. She notes that both explosion and extraction is called a *tiro*.¹³ Russell relates that *caliche* is separated from *costra*, the layer of desert rock just below the desert surface. The surface is the *chuca*. A *corrector* inspects and prices the *caliche* once it is ready in carts to be taken to the *maquina*.¹⁴ He was the overseer, as Loomis Todd had noticed, the 'handsome *corrector* on his fine horse, is omnipresent'.¹⁵ At the *maquina*, *caliche* is supplied to the

⁹ William Howard Russell, *A Visit to Chile and the Nitrate Fields of Tarapacá*. London: Virtue, 1890, p. 197.

¹⁰ Harold Blakemore, *British Nitrates and Chilean Politics, 1886–1896: Balmaceda and North*. London: University of London/Althone Press, 1974, p. 66.

¹¹ See Russell, *A Visit to Chile*, p. 2.

¹² *Ibid.*, p. 182. The spelling of *destazador* has been corrected from Russell's original, which reads *destazdor*.

¹³ Mabel Loomis Todd, 'The Nitrate Wealth of Tarapacá', unpublished manuscript, Mabel Loomis Todd Papers (MS 496C). Manuscripts and Archives, Yale University Library, p. 13. See pp. 105–08 in this volume.

¹⁴ See Russell, *A Visit to Chile*, pp. 181–85.

¹⁵ See Loomis Todd, 'The Nitrate Wealth of Tarapacá', p. 14.

crushers by *acendradores* and to boiling tanks, *cachuchos*, by *carreros*.¹⁶ A charge of salty water, *agua vieja*, is added to the crushed *caliche*, which when heated forms a dense liquid called *caldo* that is run off into *bateas* to leave only *ripio* removed by *desripiadores*.¹⁷ The refined nitrate in the *bateas* is worked by *arrolladores*; *canchadores* empty it to the *cancha* below to dry; it is then re-worked by *retiradores* in preparation for the *llenadores* to pack it into jute sacks for the *cargadores* to take onto railway trucks.¹⁸ As Russell observes, 'all the arrangements for the working of an oficina are minute in the division of labour and responsibility'.¹⁹ The organisation of these desert field factories, the separation and specialisation, was characteristic of monopoly capitalism; division and deskilling of the industrial process was its mechanism of industrial control.²⁰ Indeed, the taxonomy of tasks barely obscured the essential similarity of industrial work: nitrate mining was a matter of hard labour.

Rocks scattered by explosions were prised apart with crowbars or split with pickaxes to expose the *caliche*; it was then lifted and thrown or carried and hauled onto carts to be pulled to the factory. Then carts were heaved up to allow the *caliche* to fall into the crushers ready for saturation and boiling. The residue of the boiling tanks, the *ripio*, was shovelled away into more carts then tipped onto slag heaps while the dissolved, dried, crystallised nitrate on the drying floors was shattered with bars and picks into fine pieces. The fine crystals were shovelled into bags. The bags were heaved onto railway trucks, loaded up for the ports. A general description of all nineteenth-century mining applies here: 'The raw material of industrialization was dug out of the earth by the muscles of men aided only by pick and shovel.'²¹ Nitrate mining was laborious; it 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 Salitrera* 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 to the company for whom they worked because their wages were not coins but *fichas*. A company scrip, the token carrying the company name, was the only means to buy the overpriced goods from the

¹⁶ See Russell, *A Visit to Chile*, p. 186. The spelling of *cachuchos* has been corrected from Russell's original, which reads *cachuros*.

¹⁷ See Loomis Todd, 'The Nitrate Wealth of Tarapacá', pp. 15–16. The term *desripiadores* has been corrected from Loomis Todd's original which reads *ripiadores*.

¹⁸ See Russell, *A Visit to Chile*, p. 191. The spellings of *llenadores* and *arrolladores* have been corrected from Russell's original, which reads *llenedores* and *arroloadores*.

¹⁹ *Ibid.*, p. 184.

²⁰ Harold Braverman, *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century*. New York: Monthly Review Press, 1974.

²¹ John Burnett (ed.), *Useful Toil: Autobiographies of Working People from the 1820s to the 1920s*. Harmondsworth: Penguin, 1984, p. 25.

company stores, the tins of water or portions of food, required to sustain a working life in a desert.²²

Trafficking nothing

In the factory and the field, nitrate has substance; its weight was felt as it was scooped up in 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 workers' 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 it soon disappears. As the bags of nitrate begin their journey away from the *oficina*, the substance starts to assume its commodity form: a representation of material around which charges, taxes, payments, shares circulate; it becomes the subject of spiraling exchanges and is 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.²³ Railway companies charged nitrate companies for transportation. They overcharged. High tariffs per quintal, per hundred weight, were demanded. A nitrate company would own several nitrate fields, nitrate *oficinas* and a warehouse in the port of Iquique but was dependent upon the railway. In 1887, John Thomas North bought 7,000 shares in the Nitrate Railways Company, owned by 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 Foreign Office that 'the monopoly of the Nitrate Railways was weighing unmercifully upon British capital invested in the Nitrate works'.²⁴

At the point of export, as the bags of nitrate were loaded onto small vessels called lighters to be hauled up 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,

²² Michael Monteón, 'The Enganche in the Chilean Nitrate Sector, 1880-1930', *Latin American Perspectives*, vol. 6, no. 3 (Summer 1979), p. 67.

²³ See Blakemore, *British Nitrates and Chilean Politics*, pp. 45-60.

²⁴ Quoted in Blakemore, *British Nitrates and Chilean Politics*, p. 132.

in the second of three successive combinations, market divided the nation and set Congress against Presidency in the Civil War of 1891. Economic interests of British capital, the nitrate mine owners, nitrate merchants and their bankers, were served by Congressional opponents to President José Manuel Balmaceda. He had attempted to intervene in the nitrate industry to stop the transformation of the Atacama into 'simply a foreign factory'.²⁵ Nitrate fields were taken by Congressional forces against Balmaceda's army; nitrate companies paid export tax to them and John Thomas North was accused of their direct financial support through the Bank of Tarapacá and London.²⁶ *The Times* reported on 1 April 1891:

Without quoting names, some of which are as well-known upon the London Stock Exchange as the cardinal points on the compass, the fact remains, beyond possibility of contradiction, that the instigators, the wire-pullers, the financial supporters of the so-called revolution were, and are, the English or Anglo-Chilean owners of the vast nitrate deposits in Tarapaca.²⁷

Nitrate is a share price, a figure in a market, and it is in this most immaterial of forms that it dominates over the desert. It becomes invisible. Once nitrate has been extracted from the Atacama Desert, once it has been exploded, scattered, lifted, carried, shattered, shovelled, tipped and loaded for export, it is only seen again by the dock workers who haul the bags from quay to boat or boat to quay or the rural labourers who dig it back into the ground; they mix it into fields of Western Europe to speed the growing of crops to feed the growing cities. That its dynamic properties have been put to work is of no matter; it remains unseen. Nitrate is an arbitrary value; it rises and falls.

Liverpool Nitrate Company owned Ramírez. The company paid its shareholders a dividend of 26 percent in 1885 rising to 40 percent in 1888. £5 shares traded at £35 in that peak year but their values were unstable.²⁸ 'Gullible English investors', writes Michael Monteón, 'provided North with much of his profit'.²⁹ North sold the idea of nitrate shares as profitable; he engineered an arbitrary value to new heights; he inflated prices. *The Economist*, always critical of North's gambling business practices, exposed upwards manipulation of nitrate share prices in 1894 as a 'well-organised and systematic attempt to entice buyers to come in at greatly enhanced prices before the bubble has had time to burst'.³⁰ The invisibility of nitrate, the trade in value detached from materiality, developed into deceitful illusions. North and his partners

²⁵ Quoted in J. R. Brown, 'Nitrate Crises, Combinations, and the Chilean Government in the Nitrate Age', *The Hispanic American Historical Review*, vol. 43, no. 2 (May 1963), p. 235.

²⁶ William Edmundson, *The Nitrate King: A Biography of "Colonel" John Thomas North*. New York: Palgrave Macmillan, 2011, p. 118.

²⁷ Quoted in Edmundson, *The Nitrate King*, p. 119.

²⁸ *Ibid.*, p. 43.

²⁹ See Monteón, 'The British in the Atacama Desert', p. 128.

³⁰ Quoted in Edmundson, *The Nitrate King*, p. 49.

traded to themselves. Assets of North's bankrupt Lagunas Syndicate Limited were profitably sold in a falling market to the Lagunas Nitrate Company, another of his concerns.³¹ North amassed and spent a fortune; he bought a ruin, Kirkstall Abbey in Leeds, only in order to give it away; he purchased the mansion he had rented in the Kent borders of London, Avery Hill, for £17,500 and spent at least three times as much turning it into an Italianate palace. When he died in 1896, he left a personal fortune of £700,000.³² For Antony Gibbs and Sons, the late nineteenth century saw profits fall as low as £15,000 a year but their fortunes changed. The company had £2 million in capital by the early 1920s.³³ In 1917, Herbert Gibbs, son of Henry Hucks, and now head of his father's business, had been appointed Director of the Nitrate and Soda Executive, which purchased nitrates for Allied forces in the First World War.

Explosions of air

Three months after the outbreak of the First World War, nitrate traffic halted. In early November 1914, German warships, which had sunk two British naval vessels with the loss of 1,600 lives, patrolled the coast of Chile. They remained for a month before sailing for the Falkland Islands to attack, refuel then fire Port Stanley. A British fleet of six battle cruisers intercepted the seven German ships, destroyed six; the seventh was captured months later. The Battle of the Falklands cost 2,000 lives but, explains Stephen R. Bown, 'enabled the Allied naval blockade of Germany'.³⁴ The purpose of the blockade was akin to a modern siege: to isolate Germany from world markets thereby denying supplies essential for a war effort, such as nitrate. In 1913, on the eve of the war, almost two and a half million tons of nitrate were exported of which three quarters of a million went to Germany, the largest single market.³⁵ 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.³⁶ 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 high temperatures. Four years later, Carl Bosch engineered the industrial structures for the commercial production of Haber's process; in 1913 BASF

³¹ Ibid., p. 48.

³² David Shorney, *A Brief History of the Mansion at Avery Hill* [1984]. London: Thames Polytechnic Printing Services, 1990, pp. 3 and 6.

³³ Inés Roldán, 'Gibbs, Herbert Cokayne', *Oxford Dictionary of National Biography*, vol. 22. Oxford: Oxford University Press, 2004, pp. 44–45.

³⁴ Stephen R. Bown, *A Most Damnable Invention: Dynamite, Nitrates and the Making of the Modern World*. New York: Thomas Dunne Books, 2005, p. 197.

³⁵ Nitrogen Products Committee, *Final Report*. Ministry of Munitions, May 1919, pp. 9–10.

³⁶ L. F. Haber, *The Chemical Industry 1900–1930: International Growth and Technological Change*. Oxford: Clarendon Press, 1971, p. 198. Also quoted in Bown, *A Most Damnable Invention*, p. 219.

opened an ammonia synthesis plant in Oppau. Initially, it produced 8,700 tons of ammonia for the fertiliser market, but output increased seven times by 1915 to 60,000 tons to meet the demands of industrial warfare;³⁷ the Haber-Bosch process sustained the German war effort.³⁸ Known as 'nitrogen fixation', it created explosions from the air.

The scale of warfare meant that even the exclusive supply of nitrate from Chile to the Allied forces was not enough. After less than a year of war, by May 1915, they were facing a shell shortage. The newly formed British coalition government created a Ministry of Munitions, which, within a few months, had established 250 national shell factories and controlled the armaments industry. Nitrate became an ingredient of the industrialisation of war, the mass production of high explosives. The Atacama was more intensively mined: more *caliche* was levered from its surface, carried to the carts, hauled to the crushers; more *ripio* was shovelled onto slag heaps; more nitrate was crystallised, dried, shattered, shovelled into bags and hauled onto trains; more was exported. As the Ministry of Munitions reported: 'Notwithstanding the loss of the large trade with Germany, there has been an increase in the output of Chile nitrate during the war period.'³⁹ The transformative properties of nitrate that accelerated cultivation did the same for destruction. But its state was altered once again. When bags of nitrate left Chile's Pacific ports or arrived in the English Channel, it was in a form ready for use as a fertiliser; its white crystals could be simply dug back into soils, but releasing its most explosive furore required another transformation. Nitrate was mixed with equal amounts of sulphuric acid and distilled through the age-old retort process,⁴⁰ an apparatus of vessels and looping pipes that collected nitric acid required for the production of dynamite, nitroglycerine, and nitro-toluol necessary for TNT (trinitrotoluene).

The wartime drive for increased production resulted in labour shortages that become more acute after conscription to the front in 1916. Women workers, as is well documented, entered engineering industries in large numbers.⁴¹ Women manufactured and filled the shells. A 1918 record of the female contribution to munitions work, *The Woman's Part* by L. K. Yates, noted 'women now undertake every process'. She described all, including packing a shell:

It may signify but little to man to give up his small personal possessions whilst at work in the danger areas but to many a woman worker it means much, that she may not wear a brooch, or a flower, while on duty, and that her wedding-ring, the only allowable trinket, must be bound with thread while she works. Her tresses, which she normally loves to braid, or twist into varying fashions, must also be left

³⁷ See Haber, *The Chemical Industry 1900–1930*, pp. 93–95.

³⁸ See Bown, *A Most Damnable Invention*, pp. 219–20.

³⁹ See Nitrogen Products Committee, *Final Report*, p. 83.

⁴⁰ *Ibid.*, p. 224.

⁴¹ Gail Braybon, *Women Workers in the First World War*. London: Routledge, 1981; Clare Wightman, *More than Munitions: Women, Work and the Engineering Industries, 1900–1950*. London: Longman, 1999.

hairpinless beneath her cap. She must relinquish her personal belongings before going to her allotted task; no crochet-hook or knitting-pin may accompany her into the zone where the friction of steel, or hard metal, might spell death to a multitude of employees.⁴²

Nitrate is terrible stuff. The need to protect the human body from its effects had not been properly noticed. Yet, the clothing of nitrate workers, their fabric bindings against its agitating properties, warned of its capacity for confrontation with other bodies: women workers and infantry at the front. Walter Benjamin reflected upon contradictions of the 'bodily experience' caused by 'mechanical warfare'. And, the chemicals packed within this weaponry played their part. 'A generation', he wrote in *The Storyteller*, 'now stood under the open sky in a countryside in which nothing remained unchanged but the clouds, and beneath these clouds, in a field of force of destructive torrents and explosions, was the tiny, fragile human body.'⁴³

The dynamic effect of nitrate fertilisers upon soils was compacted in the shell to turn plentiful harvests into a barren waste. Nitrate transformed another landscape, created another desert. Most of the nitrate traffic ended here, in the craters of the Western Front. In a lengthy report on nitrogen products compiled at the end of the First World War, the Ministry of Munitions concluded that 'national interests demand' synthetic nitrate processing.⁴⁴ Without any of the 'war to end all wars' rhetoric, the Ministry was eager to secure the supply of explosives for further conflicts:

Considerations of national safety, of finance, and of utility, would force a country to resort to the policy of adopting synthetic methods as an insurance against future emergencies, instead of placing reliance upon the importation of Chile nitrate.⁴⁵

It was predicted that the price of nitrate from Chile would fall and the industry would decline.

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⁴² L. K. Yates, *The Woman's Part: A Record of Munitions Work*. London: Hodder and Stoughton, 1918, p. 23.

⁴³ Walter Benjamin, 'The Storyteller', in Hannah Arendt, *Illuminations: Essays and Reflections*. London: Fontana, 1992, p. 84.

⁴⁴ See Nitrogen Products Committee, *Final Report*, p. 106.

⁴⁵ *Ibid.*, p. 80.

SPACES OF CIRCULATION

MAX JORGE HINDERER CRUZ

*The Inca asks the Spaniard what he eats: Cay coritacho micunqui?
[Is this the gold you eat?] – The Spaniard replies: We eat this gold.
Guaman Poma, Nueva corónica y buen gobierno (1615)*

According to French theorist Félix Guattari, contemporary capitalism has entirely colonised the surface of the earth. For Guattari, the process of ‘integration’¹ of world capitalism involves a twofold movement: the gradual geographical expansion that closes on itself and what he calls ‘proliferative molecular expansion’, a kind of overcoding and control of all types of human activity:

Once capitalism has invaded all economically exploitable surfaces, it can no longer maintain the expansionist thrust that had characterised it during its colonial and imperialist phases. In this way, its field of action is enclosed and this obliges it to recompose itself constantly, over upon itself, compounding itself upon the same spaces, deepening its means of control and subjugation of human societies.²

World capitalism achieves this enclosure by integrating all its ‘machinic’ systems for extracting value with the processes of productive and reproductive work, the processes of semiotisation and the production of desire. As Guattari says, with all of human activity.

Taking this as our model, in order to understand the ways in which contemporary capitalism operates it is not enough simply to refer to the dimensions of ‘horizontal’ expansion, that is to say, territorial movement over the surface or macropolitical tectonics. We have to consider its movements along ‘vertical’ vectors: temporalities, chains of emerging planes, confluences, penetrations, microtectonic processes of transformation and, finally, the amassing of time for the creation of abstract values.

There can be no doubt that the history of the world is the history of its movements. But if we review this history, we observe that the modes of operation of world capitalism as described by Guattari are not exclusively contemporary.

¹ The Latin concept of *integratio* means ‘to constitute or complete a whole’, to incorporate someone or something into a whole or to complete it with the missing parts.

² Félix Guattari, ‘El capitalismo mundial integrado y la revolución molecular’ (1981), in *Plan sobre el planeta: Capitalismo mundial integrado y revoluciones moleculares*. Madrid: Traficantes de Sueños, 2004, pp. 57–74. French original: ‘Le Capitalisme Mondial Intégré et la révolution moléculaire’, CINEL, 1981.

On the contrary, every moment of historical schism, revolution, war, reconfiguration of geographical territories and technological innovation seems also to reveal reconfigurations of the vectorial planes, integrating into all territorial extension and human activity new temporalities, realignments of the processes of semiotisation and value production ascribed to vertical vectors.

The histories of modernity and of capitalism are connected to the history of their territorial expansions, particularly the history of the conquest and colonisation of the Americas. But they are connected not only to the insatiable extraction of resources and processes of accumulation that colonial enterprise generates, but also to the perpetual circulation of values, to the expansion of networks of exchange and to the creation of new ideological and governmental forms from which they are indissociable. This dynamic was key in the development of colonial trading companies, war ships, slaves, heavy industry and the agricultural industry, and in impoverishing and dispossessing large sectors of the population of their means of subsistence, turning them into cheap or free labour in America and Europe alike. It was also decisive in the development of huge machines of 'production of subjectivities' (such as the ideological campaigns of the Counter-Reformation and the plan to evangelise the colonies), the stratification of class identities and the development of banking and the securities market.

Although the historical territories – be they empires, urban centres or centres of industrial production – that make up the modes of circulation of world capital of past centuries do not cover the entire planet, we can argue that the processes of enclosure, overcoding and integration of world capital can occur in any space that does not have the possibility of expanding territorially. These may be isolated nuclei of production, farms, islands or forts, but also any kind of decentralised, autonomous, closed circuit. Since seafaring technologies enabled the processes of global circulation, interconnecting individual nuclei, the values in circulation belong equally to both horizontal and vertical movements of the integrative processes of world capitalism. They describe horizontalities that form part of the international division of labour and migrations of entire populations. And, at the same time, they describe vertical vectors: in the production of knowledge and in the factory as labour force, as fuel, in feeding workers and livestock, as fertiliser on plantations and in generating processes of alteration and simultaneous temporalities.

In the 1960s and 1970s, in the critical tradition of research into the historical roots of capitalism and anti-colonial theory, it was theories of 'dependency' and the controversy surrounding the Marxist and Althusserian critique of ideology that set the bounds of discourse. In the case of Félix Guattari, the Annales School, and particularly the historian Fernand Braudel and his theory of different modes of historical time, can be seen as an extremely important reference. Starting with an analysis of the Mediterranean in the age of Philip II, it was clear to Braudel that to think about its transformation in the sixteenth century, one could not focus exclusively on the Mediterranean itself, reifying the cultural identities of its particular populations, the history

of its wars and trade.³ Under Philip II, the economy of the Mediterranean was already a global economy with colonial extensions, transatlantic exchanges and north-south trading routes, as well as European colonies in Southeast Asia. What is unique about Braudel's approach is that he analyses the micro-scope changes in the habits of individuals against the backdrop of processes of globalisation and the impact these have on changes in nutrition, the cultivation of land and people's relation to environmental changes, as well as on clothing, traditions and the development of social codes – that is to say, on the refinement of technologies and local sensibilities.

Broadly speaking, the methodological approach of the Annales School centred on the analysis of long-term historical structures, with particular attention to the micro-planes that constitute them. This historiographic approach has had an impact on notions such as the 'world-system' (Immanuel Wallerstein), the 'long memory of internalised colonialism' (Silvia Rivera Cusicanqui) or the 'politics of the memory of the body' (Suey Rolnik) that create opportunities to rethink the convergence of the micro-planes and macro-planes of global history from a decidedly anticolonial, anticapitalist viewpoint. These thinkers in the critical tradition, including Guattari, share the conviction that analysis of micro- and macro-planes is not necessarily contradictory, in fact quite the contrary. If we want to reveal the pitfalls of the dominant culturalist models of identity and historicist idealism in bourgeois tradition's Eurocentric narratives, we have to understand them as being reciprocal and complementary.

The circulation of capital is by definition a transformative movement, a metabolism that tends to absorb substances, resources, living bodies, technologies and knowledge as it meanders, later to process, synthesise or degrade them, and release them as new compounds, chains of signification, space-time partitions and productive segmentations. Iron is one of the classic examples that the theory of political economy applies to the study of the industrial age: a raw material that is turned into a tool or an elaborated means of production thanks to the living work force, to extend productive forces (artisan or industrial) and be reinserted into the process of circulation of capital. The example of iron is very useful because it is relatively easy to understand, the cycles of circulation obeying a reasonably uniform, additive logic, of emerging tendency. It is an example that lends itself to a 'naturalisation' of the superposition of its planes of circulation, thereby suggesting the naturalness of the accompanying processes. It is worth remembering, however, that the development of industry has never been possible without violent processes of deterritorialisation, that exceed the territoriality of their industrial centres: in Africa and America, dispossession, migration and enslavement of entire populations; in Europe, the expulsion of large sectors of the peasantry from the land they worked,

³ Fernand Braudel developed his theory of *la longue durée*, concerned with historical structures of long duration, in relation to the transformation of the Mediterranean as political, economic and environmental matrix during the reign of Philip II. See *The Mediterranean and the Mediterranean world in the age of Philip II*. Berkeley: University of California Press, 1996. French original: *La Méditerranée et le monde méditerranéen à l'époque de Philippe II* (1949).

with relative independence as regards means of subsistence, to turn them into industrial proletariat. The circulation of capital is an absolutely artificial metabolism, hostile to any system that does not submit to its logic.

One of the basic laws underpinning this logic is that, in theory, everything is interchangeable. In the process of circulation, with the creation of abstract values and their insertion into processes of semiotisation, anything can become anything: the sweat and blood spilt in the resistance movements of the African diaspora and on the sugarcane fields in the Caribbean crystallise like grains of sugar in the tea and coffee rooms of the emancipated bourgeoisie. There, they serve to sweeten the discourse on human rights, equality and freedom. The working days of forced labour in Andean mines, the tax effort with which the Quechua, Urus and Aymara paid the Spanish Crown their right to be regarded as human, can become bad cheques in some financial transaction on the other side of the ocean.

Making visible the spaces of circulation, understanding the concatenations and ramifications on the micro-planes and macro-planes that make up the metabolic processes of global history, means making visible the instances of violence at work in what is often accepted as a natural phenomenon. It is here that the recuperation of history becomes an ethical issue. It is up to all those of us who are involved with history, who work with it and want to make it visible, to weigh up to what extent the processes of circulation, metabolism and transformation can contain, promote or trigger processes of emancipation. Because all value in circulation is also an accumulation of temporalities in motion, like a time capsule with the potential to explode in a calculated or unexpected way, integrating or disintegrating fixed territorialities, transgressing its own orbits of operation and established systems, generating surprising molecular concatenations or setting off massive landslides of brute force, revolutions or desired schism.

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THE PHOTOGRAPHY OF AN INHOSPITABLE TERRITORY

ANDREA JÖSCH

To reflect on the visual representation of the Atacama Desert since the late nineteenth century is to speak of the construction of an inhospitable imaginary, in terms both of its condition as a deserted landscape and the political and economic systems of exploitation of the nitrate workers and natural resources. The latter can also be related to the production of the stereotyped images of today's great Chilean mining industry, and with the image of the north of Chile that is officially exported. 115 years after the publication of *Vistas Fotográficas de las Faenas y Puertos Salitreros* (Photographic Views of the Nitrate Works and Ports), an album produced by the Asociación Salitrera de Propaganda in 1899,¹ we can still see how the North is represented as the simulacrum of a Martian geography, as an unknown environment, one of poetry and forgetting, and as the 'happy copy of Eden'² that never materialised.

The arrival from Europe of the first photographic cameras to reach Chile in 1840³ not only introduced a new technological device that could transcribe objects/subjects on a light-sensitive support and fix them there, it brought with it a way of representing the world. The frame, the pose, the gesture, the disposition in relation to the camera and the possibilities of fixing the image would change the way we saw the landscape, its setting and ourselves. The first photographic studios in Chile were set up by foreign nationals: French, North Americans and Germans⁴ arrived in the country to offer their services. At that time, photography laid the emphasis on recording as a *mirror of memory* (for those who had access to it) and as a visual chronicle of modernity, disregarding the fact that the landscape was being domesticated for these purposes and that the inhabitants of the place would become machine-subjects (the workers) and savage bodies (the indigenous people).⁵

¹ The album belongs to the collection of the Museo Histórico Nacional, Santiago de Chile.

² Line from the Chilean national anthem as we still know it today, written by the poet Eusebio Lillo in 1847.

³ The first daguerreotype camera arrived in Chile on board the frigate *La Oriental*, which sank off the coast of Valparaíso, Chile, after setting sail for the North: the first panoramic images of Chilean territory lie at the bottom of the Pacific Ocean.

⁴ Hernán Rodríguez Villegas, *Historia de la fotografía. Fotógrafos en Chile durante el siglo XIX*. Santiago de Chile: Centro Nacional del Patrimonio Fotográfico, 2001.

⁵ See Pehuén Editores publications under the heading *Fotografía Patrimonial* (Historical Photography), in particular the collection 'Relatos del Ojo y la Cámara: Fotografía Patrimonial Chilena', directed by Margarita Alvarado, Mariana Matthews and Carla Möller. Santiago de Chile: Pehuén Editores, 2005–09.

Another important theme of photography was travel, seen as the means to discover different places and realities, although it was also the visual validation of a system of representation dazzled by expeditions, progress and industrialisation. Hence it is not surprising that the majority of the images kept in the State's most important archives⁶ should be those that document that *modern world* in the form of industrial scenes, manual labour, standardised portraits, etc., as if wanting to record mechanically the imprints of a system that represented socioeconomic progress and a patriotic image, not realising that decades later they would be seen as evidence and omissions of the undesirable.⁷ But it is important to remember, as Ronald Kay writes, 'the possibility... of being at the same time *within* sight and *outside* of it, without abandoning the visible'.⁸ This makes clear the need to read what is 'outside the frame' of any given image.

Broadly speaking, the production of contemporary art of the last century has utilised photography to give a political account of its postures and ideologies, as this is the point where it enters into dialogue with the world. All the more so at a time when the photographic image does not only relate to function, but the construction of society's complex systems of communication.⁹ We might say that the image is ideology and power; photography should, then, always be read in the context of its time so that we are not limited to the interpretation it puts forward as official image.

Again, the official images of nitrate and the nitrate works of the late nineteenth and early twentieth centuries sought above all to visually inscribe the new industrial processes and everything surrounding them. In this way they described, albeit unwittingly, these new forms of domination, oppression and servitude. To give one example, the position in the frame and the difference in status or distinction between the worker and the master: the former, at work or in the centre of the image, looking directly at the camera lens, bearing his work tools; the latter, smartly dressed and dominating the scene, his eyes a panopticon. Or the houses and dwellings of the pampa, in comparison with the luxurious pastimes of owners of the nitrate works; or the domination and carving up of the territory and the landscape by chimneys, contrasting with the workers' settlements; and, of course, the annulment of the indigenous peoples.

Class separation by background and spending power was photographed as something indisputably for the good of the greater project, which was to build a developed country. Once again photography put itself at the service

⁶ I refer to the photographic archives of the Museo Histórico Nacional and the Biblioteca Nacional, both of which belong to the Directorate of Archives, Libraries and Museums in Santiago de Chile. (See too the archive of the Centro Nacional del Patrimonio Fotográfico.)

⁷ This seen from a viewpoint critical of the capitalist market economy and its impact on the construction of Latin American nations.

⁸ Ronald Kay, *Del espacio de acá. Señales para una mirada americana*. Santiago de Chile: Editores Asociados, 1980, p. 25.

⁹ Particularly in view of the fact that we live in times of an overabundance of images, where the importance of access to publishing and the democratisation of mechanical reproduction mark a watershed in their reading.

of propaganda, and these were, without doubt, the images that best narrated the identity to be constructed, as they provided history with 'preventative measures',¹⁰ omitting the existence of other realities.

Even today, much of the photography of northern Chile centres on the landscape and the mining industry. This is apparent in the scant inclusion of any human presence, as if it did not fit into the frame or were minimised in scale, as though it could only exist in its function as worker or tourist.¹¹ Another characteristic is the scarce presence of indigenous people. The anthropologists María Paz Bajas and Pedro Mege suggest that this could be because 'around 1879 the indigenous population of Tarapacá was oblivious, not only to the reasons for the war, but also to the three states in conflict',¹² which made acceptance of the *other* mysterious and highly complex, and identified them as Peruvian or Bolivian, even when they were Chilean. This was due to the need to assign a national identity to a recently annexed territory, a place that in ethnic terms had no borders, as everyone was Andean.

The images of nitrate are symbolic cartographies that appropriate an imaginary, in this case something like the recording of *what is to come*. But they are also relevant because many of the images we refer to – in the album *Oficina Alianza and Port of Iquique 1899* in the collection of the Museo Universidad de Navarra, or *Salitreras de Tarapacá* (Tarapacá Nitrate Works) by Louis Boudat –¹³ are the ones that illustrate school history and geography textbooks. This prompts us to reflect on the identity and otherness of our nation and our people, since the noise of (all) images belongs to the sphere of interpretation, because *art is precisely the materialising – politicising – historicising of ideas*.¹⁴ In this context, the photographs of the architectural structures of the nitrate plants and the stereotyped portraits of workers and indigenous people can become ruins that foreshadow catastrophe and killing, places of segregation and spaces of capital. This is why it is impossible to construe innocence in these images: they are pure simulacrum.

We might say that photographers and photographed alike learned to adopt a composure before the apparatus of photography and the making of the image, since rather than coming *out of frame*, the subject places himself *in frame*, in his rightful social place. The most controversial issue is the fact that the image has been used by the structures of power, becoming a model

¹⁰ Isabel Jara et al., *Medidas preventivas*. Santiago de Chile: Ediciones Metales Pesados, 2008. Book published to mark the centenary of the massacre of Santa María in Iquique.

¹¹ Margarita Alvarado Pérez and Carla Möller Zunino, 'Fuera de cuadro: Representación y alteridad en la fotografía del indígena del desierto y el altiplano', in Margarita Alvarado et al. (eds.), *Andinos: Fotografías siglos XIX y XX, visualidades e imaginarios del desierto y el altiplano*. Santiago de Chile: Pehuén Editores, 2012, p. 36.

¹² María Paz Bajas and Pedro Mege, 'Paradigma visual del indígena del desierto y el altiplano. Antropología de la fotografía', in Alvarado et al. (eds.), *Andinos*, p. 44.

¹³ *Oficina Alianza and Port of Iquique 1899* contains almost the same photographs and sequence as the album *Vistas fotográficas de las faenas y puertos salitreros* mentioned in note 1; the Louis Boudat album can be seen at www.memoriachilena.cl/archivos2/pdfs/MC0000316.pdf.

¹⁴ As discussed in Sergio Rojas, *El arte agotado*. Santiago de Chile: Universidad de Chile, 2012.

of the political and poetical space of violence, that takes over the discourse of accepted reality and the media that besiege us with predetermined images, stripped of their primary contents. Here, in the patterns of their circulation, is a complex construction of our modern form of subservience.

The territory of northern Chile is about the process of death and of memory, of 'progress' and the entry into the country of neoliberal policies. But it is also the place of anarchists, of Luis Emilio Recabarren, of oligarchy, of the labour unions, of the death of José Manuel Balmaceda, of Chilean mineral and capital; it is the land of war, of the nationalisation of the copper industry in the 1970s with Salvador Allende; it is the place of Andean peoples (Quechua and Aymara) and of the driest desert in the world; it is the place of nostalgia for the light.¹⁵

The photographs are, then, an expanded field. Because although the image may have domesticated our gaze, it can, apparently, also restore to us our capacity for *unconcealment*, since the contexts of reception are vital to understanding or envisioning what is photographed there. As Georges Didi-Huberman says, 'the object of imitation is not an object, but the ideal itself'.¹⁶ This ideal of construction of imaginaries, of interpretations, of circulation of ideologies, of the over-importance of the frame, of the tyranny of the image, of the morbidity of the feeling of representativeness in the *hyperreality* of what happened there, has dazed us. Something like the irony of irony.

The images of nitrate mining in northern Chile in the late nineteenth century presage an economic system and the forgetfulness (*desmemoria*) of a culture; the images of the latest tourist promotion campaigns¹⁷ for the same territory do not go much beyond this. The text accompanying the photograph that illustrates northern Chile in the 'Chile is Doing Well' (*Chile hace bien*) campaign by the Fundación Imagen País reads: 'Under the intense rays of the sun that warm kilometres of sand, men of the north live with the silence and the wind, working the dry land of the most arid exile in the world'.¹⁸ Desert as an analogy of exile; and the exile of forcible expulsion of its inhabitants, of their memories, and of their history.

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¹⁵ See the documentary *Nostalgia de la Luz* (2005–10), by Chilean filmmaker Patricio Guzmán.

¹⁶ Georges Didi-Huberman, *La imagen superviviente. Historia del arte y tiempo de los fantasmas según Aby Warburg*. Madrid: Abada Editores, 2009.

¹⁷ I refer to the official promotion campaigns carried out by Fundación Imagen País (www.imagendechile.cl) and the Servicio Nacional de Turismo (SERNATUR).

¹⁸ See images of this campaign at pegaelgrito.bligoo.com/content/view/993352/Bicentenario-Chile-Nueva-Imagen-Pais.html#.UreFxWRDvkU. Editor's Note: the author plays on the apparent interchanging of the Spanish words *desierto* (desert) and *destierro* (exile) in the original publicity material: *trabajando la seca tierra del destierro más árido del mundo*.

NITRATE WORKERS AND POPULAR POLITICISATION IN TARAPACÁ IN THE EARLY TWENTIETH CENTURY

PABLO ARTAZA BARRIOS

The violent military repression which – with the killing on 21 December 1907 of more than three hundred people at the School of Santa María in Iquique – put an end to ‘the great strike’ (*la huelga grande*) by the nitrate workers of the northern province of Tarapacá, is a critical point in the history of our country.¹ For Marxist historiography, this tragic event closes the initial formative phase in the history of the Chilean labour movement, a period characterised by the organisation of the proletarian class and the awakening of its political consciousness, and represents a radicalisation of the class struggle,² a view shared by conservative historiography, which regards this event as the definitive end of national consensus.³ The radicalisation of the labour movement based on greater class awareness was, then, the major consequence of the massacre of Santa María, but the way in which this process took place has not yet received a fully satisfactory explanation. This calls for an examination of the impact generated by the killings, seeking answers in the behaviour of those actively involved and affected,⁴ to clarify the ramifications for the subsequent radicalisation of the social conflict and the repercussions for the diffusion of class consciousness and the politicisation of the Chilean proletariat, which gave rise in 1912 to the Socialist Workers Party (POS).

On this subject, Hernán Ramírez Necochea explains the emergence of class consciousness as a product of the social conflict itself, since for him it is here that ‘proletarian consciousness is forged, the workers’ capacity for struggle grows and their organisations are perfected, becoming more focused and establishing clearer objectives’.⁵ Ramírez Necochea thereby connects the emergence and consolidation of class consciousness with a process arising from the very

¹ This massacre, which marked the initial ‘heroic’ phase of the Chilean labour movement, has been widely covered by historiography, and both the description of the general strike by workers in the province and the harshly repressive measures taken by employers and State to put an end to the mobilisation by use of arms can be found in Eduardo Devés Valdés, *Los que van a morir te saludan. Historia de una masacre: Escuela Santa María, Iquique, 1907*. Santiago de Chile: Ediciones Documentas, 1989; and in Pablo Artaza Barrios (et al.), *A 90 años de los sucesos de la Escuela Santa María de Iquique*. Santiago de Chile: LOM Ediciones, 1998.

² See among others, Hernán Ramírez Necochea, *Origen y formación del Partido Comunista de Chile: Ensayo de historia política y social de Chile*. Moscow: Editorial Progreso, 1984.

³ Gonzalo Vial, *Historia de Chile (1891–1973)*, vol. 1, tome II. Santiago de Chile: Editorial Santillana, 1982 (especially part four).

⁴ Pablo Artaza Barrios, *Movimiento social y politización popular en Tarapacá, 1900–1912*. Concepción: Ediciones Escaparate, 2006.

⁵ See Hernán Ramírez Necochea, *Origen y formación*, p. 42.

political activity and protest of the workers themselves, although explaining little about the specific mechanisms that enabled this process to take place.

For this reason, if the aim is to evaluate the impact of the massacre of Santa María of Iquique on the increasing of class consciousness among the proletariat of Tarapacá and of Chile as a whole, it is essential to look carefully at the *translation* or *translations* of the incident into popular lore or, at least, at those made by the principal proletarian organisations, as only here will we find the interpretive keys to understand how one specific event influenced this process. To this end we will attempt to clarify how the workers of Tarapacá lived, experienced and translated the massacre, and the modifications that were introduced into the popular movement and its organisations as a result.

The popular translation of the massacre of the workers

The massacre in Iquique excited profound commotion among the Chilean proletariat, particularly in Tarapacá. Despite the authorities' efforts to conceal and falsify what happened, the carnage did not go unnoticed by the country's workers. The popular movement voiced its denunciation by means of its press, associated with the Democratic Party (PD), the incipient union movement (*movimiento mancomunal*) and with anarchism, and was outspoken in condemning the brutality employed, offering a vital key to popular interpretation of the events of Santa María, and helping to explain how this experience played a role in the acquisition of greater class consciousness by Tarapacá's proletariat. The workers' press dealt with the events of Iquique by making a complex reading, not only denouncing them but also seeing in them a lesson to be learned and made use of by the workers.

A review of Tarapacá's popular press after the massacre shows that the incidents in Iquique were recast as a sacrifice of their class comrades in the struggle for just demands. First of all, the workers observed a period of mourning, to give respite to the survivors and as a tribute to those so brutally killed. Alongside the tribute, a popular recovery began which looked to draw lessons from the incident, since the workers could not remain passive in their mourning, they had to turn it to action; death had to be made life, thereby transforming the workers' martyrdom into the seed of new popular rebellion. This translation of the massacre was expressed in mostly peaceful terms, although in some cases it was apparent that it was a thin line that separated calls for justice and punishment from proletarian vengeance. But even where vengeance was taken as an impetus to action, all the energy went into strengthening workers' unity and class organisation, which was increasingly given a clearly political direction. Thus, first and foremost, the workers' press sought to *read* the Santa María massacre as a seed of proletarian unity.

To these central aspects of the popular reading was added a new element that helps to explain the radicalisation of the social unrest after 1907, as well as bring to light a shift in the class consciousness of the proletariat in Tarapacá and in Chile. This element was the mainstreaming of the view – on the part of the worker's press and its organisations and, through them, of the

workers themselves – that the struggle which for so long had pitted them against capital was not being mediated by the country's highest political authorities, who, with the massacre, showed that they were acting in alliance with capital. For the workers, the brutality used by the authorities to repress the strike was proof of their bias, and an end to their supposed neutrality in conflicts between labour and capital. Faced with this situation, the proletariat began to strengthen its internal unity but on new foundations. The alliance between authority and capital merely reinforced the oppression and exploitation of *those at the bottom*, who saw the disappearance of a potential mediator. With this alliance of *those at the top*, the workers had to redefine the way they saw social relations, recognising the existence of just two antagonistic classes: the exploited and the exploiters.

Worker's unity and popular politicisation under Recabarren

This aspect of the popular interpretation of the events at Iquique helps to explain how workers' action as expressed in the strike, and the specific experience of the massacre, led to the increased class consciousness of Tarapacá's proletariat. The people now saw their class unity according to a new diagnosis of the social reality in which they were immersed, where the authorities were not an independent agent to which one could appeal, but rather had shown themselves to be associated with the employers and – in the people's eyes – had become accomplices of the traditional enemy, accomplices of capital. In the land of nitrate, this radicalisation of the social conflict took the form of greater popular politicisation. As Julio Pinto has described well, in the wake of the workers' massacre, the proletariat of Tarapacá stepped up *the pace of politicisation* that had begun in the 1890s, first with involvement in the political activity of the local branch of the Democratic Party, then asserting class identity by forming the Socialist Workers Party in 1912.⁶ The socialist alternative that emerged strongly among the nitrate workers with the foundation of the POS was born of the radical questioning of the postulates and practices of the Democratic Party, which merely proposed to reform, 'extend and relax' existing institutions, without changing the bases of a deeply unequitable, stratified society, in the words of Luis Emilio Recabarren, later to be known as the father of the labour movement and Chile's political left.⁷

The popular readings of this painful experience and the new diagnosis of social reality that they generated were the stimuli that allowed Recabarren to take the leap from the ranks of the Democratic Party to become the leader of a new instrument of popular politics. According to Sergio Grez, Recabarren reached the conclusion that democracy and socialism were not the same thing,

⁶ Julio Pinto Vallejos, *Trabajos y rebeldías en la pampa salitrera*. Santiago de Chile: Editorial Universidad de Santiago, 1998, and 'Salitre y socialismo: Recabarren, Tarapacá y la formación del Partido Obrero Socialista', *Historia*, vol. 32 (1999), pp. 315–66.

⁷ Sergio Grez Toso, *Historia del comunismo en Chile: La era de Recabarren (1912–1924)*. Santiago de Chile: LOM Ediciones, 2011.

which went against widely held belief among workers and the general populace. Thereafter, whereas *democracy* proclaimed the reformulation of various social institutions and the harmonisation of capital and labour, *socialism* preached the common ownership of the land and of the means of production, but also the abolition of those institutions it regarded as outdated and useless from a revolutionary viewpoint. It was Recabarren who succeeded in channelling and directing popular demands and the aspiration to parliamentary representation, through the new workers' party of which he was the leader, and going beyond the limited Democratic programme.

From its inception, the Socialist Workers Party regarded political critique and participation in electoral activities as part of a much wider general programme than the political organisations that had gone before, bringing together, initially, trade union and cooperative action with political activity.⁸ In this way, political and economic struggle were brought together for the improvement of the working class, and these in turn were accompanied by a wide-ranging cultural project that included workers' theatre, lectures, the publication of newspapers and pamphlets, and the setting up of schools, among many other manifestations. By these means Luis Emilio Recabarren extended the labour movement in Tarapacá and in Chile on the foundation of a broadened and strengthened proletarian identity.

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⁸ Julio Pinto Vallejos, *Luis Emilio Recabarren: Una biografía histórica*. Santiago de Chile: LOM Ediciones, 2013.





(SCL-2) SANTIAGO, Chile, Sept. 29 (AP)—The presidential salon where Marxist Salvador Allende reportedly committed suicide during the Sept. 11, is still in shambles and untouched. (A P WIREPHOTO) wfn/str 73 col

A History of Detonations, 2013

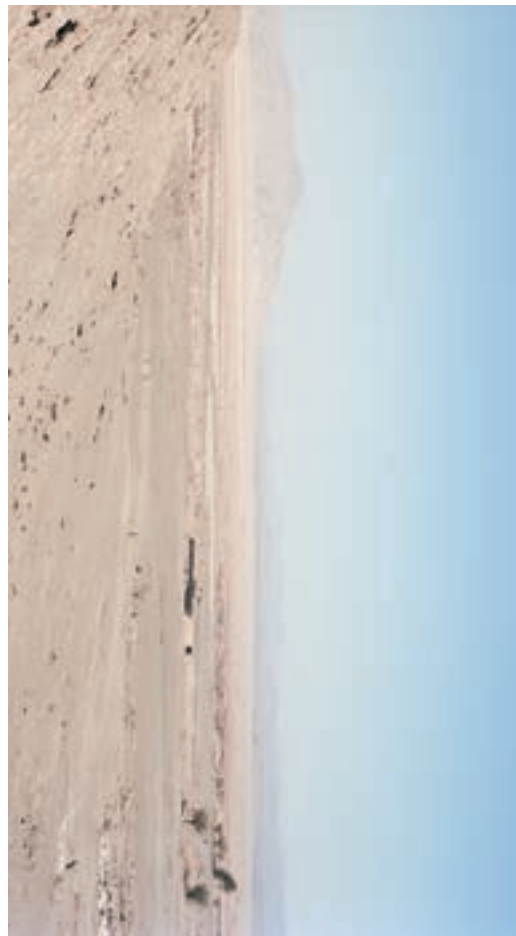
[p. 52] The presidential salon where Marxist Salvador Allende reportedly committed suicide during the September 11 [coup], is still in shambles and untouched. (AP wirephoto, Santiago de Chile, 29 September 1973). [p. 27] Chile's new Marxist president-elect, Dr. Salvador Allende, the Marxist president-elect of Chile, declares that neither the Communist Party nor any other group will be allowed to run his government. The 62-year old Socialist senator, who is to be confirmed as president next Saturday, insists that "there will be no dominance or supremacy by any party. Remember that I will be president... and have the sense, the responsibility and the dignity to fill the highest post that can be granted to a man in this country", he declares. (AP Wirephoto, New York City, 17 October 1971)







A History of Detonations, 2013
[pp. 56 and 23] German boat releasing a sea mine in the Baltic Sea during the First World War, c. 1915.





A History of Detonations, 2013
Oficina Alianza and Port of Iquique 1899. Photographic album in the collection of the Museo Universidad de Navarra, Pamplona. [p. 58] Louise Purbrick examining the photograph *Drying floors and bagging of nitrate*. [p. 21] Letter from J. I. Smail to Lord Aldenham sent with the album of photographs on 18 July 1900: 'My dear Lord Aldenham, I am sending you herewith an Album of Views of Alianza Iquique, which I would ask you to accept as a souvenir of our last and I hope not least among Nitrate Oficinas. The views were taken about the middle of last year. Believe me, yours very sincerely, J. I. Smail.'





A History of Detonations, 2013
[pp. 80 and 19] Chilean Nitrate publicity postcard, c. 1920.

FOR THIS DESERT WAS ONCE BESIDE THE SEA, AS IT WAS ONCE BENEATH THE SEA