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Landscapes of Extraction and Memories of Extinction in Patricio Guzmán's Nostalgia de la luz and El botón de nácar

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Abstract

Focusing on Guzmán's essay films *Nostalgia de la luz* (2010) and *El botón de nácar* (2015), in this article I argue that the ambiguity between reference and abstraction that pervades the visual representation of landscape in late capitalism offers a productive way to map out the processes of extinction caused by continual histories of extraction. This ambiguity not only reveals the limits of the landscape-form to convey the degradation of nature, but also the progressive disappearance of the human subject from the center of history in such spaces where capital seeks time and time again to resolve its internal contradictions through new forms of resource extraction. In this fashion, Guzmán's totalizing aspiration to represent the historical, archaeological, and even cosmological pasts through the landscapes of the Atacama Desert and Patagonia becomes a way to explain how capital has moved from the human to the planetary, which entails a larger alteration of ecological metabolism and transforms extinction into the only historical horizon. I conclude that the memory of past processes of extraction and extinction inscribed in these landscapes can also function as a prolepsis of a future without us, thus presenting an opportunity to reactivate the subject's historical potential to change the way we relate to nature.

Keywords: Patricio Guzmán, extraction, extinction, landscape, memory, history.

Resumen

Basándome en los ensayos fílmicos *Nostalgia de la luz* (2010) y *El botón de nácar* (2015) de Patricio Guzmán, en este artículo sostengo que la ambigüedad entre referencia y abstracción que caracteriza la representación visual del paisaje en el capitalismo tardío ofrece un mecanismo productivo para mapear los procesos de extinción causados por historias continuas de extracción. Esta ambigüedad no solo revela los límites de la forma-paisaje para comunicar la degradación de la naturaleza, sino que también expone la progresiva desaparición del sujeto humano del centro de la historia en aquellos espacios donde el capital busca una y otra vez resolver sus contradicciones internas a través de nuevas formas de extracción de recursos. De esta manera, la aspiración totalizadora de Guzmán de representar el pasado histórico, arqueológico e incluso cosmológico a través de los paisajes del desierto de Atacama y la Patagonia se convierte en una forma de explicar cómo el capital se ha desplazado de lo humano hacia lo planetario, lo que implica una mayor alteración del equilibrio ecológico y de paso transforma la extinción en el único horizonte histórico. Concluyo señalando que la memoria de aquellos procesos pasados de extracción y extinción inscritos en el paisaje puede funcionar como una prolepsis de un futuro sin nosotros, presentando así una oportunidad para reactivar el potencial histórico del sujeto para cambiar nuestro modo de relacionarnos con la naturaleza.

Palabras clave: Patricio Guzmán, extracción, extinción, paisaje, memoria, historia.

Introduction

The relationship between extraction and extinction is, at least, twofold: ever since industrialization of the modes of production, capitalist modernization has relied on the extraction of fossil fuels resulting from processes of extinction that took place millions of years ago. At the same time, the expansion of these very modes of production on a planetary scale has been determinant for the extinction of multiple species in the new geological epoch driven by human intervention in the environment known as the Anthropocene (Crutzen and Stoermer 2000). Moreover, the alarming biodiversity loss due to climate change and global warming provoked by fossil fuel industries might be leading to a Sixth Extinction event (Kolbert 2014). We witness a massive recording of these processes of extraction and extinction in images and narratives that convey how we see not only our past as species, but also our future (Heise 2016). In this context, it is crucial to ask about the role of the landscape, within the growing field of artistic and critical explorations of the global ecological crisis, in the making and representation of environments where extraction and extinction are articulated.

Recurrent depictions of landscapes intertwining extraction and extinction focus mostly on non-human environments significantly altered or even in the process of ruination as a consequence of capitalist crises. These landscapes often appear depopulated or precariously inhabited, thus indicating past or ongoing extinction processes. They also often appear accompanied by geological or cosmological imagery that projects a world without us. Patricio Guzmán's essay film *Nostalgia de la luz* (2010) on the memories of colonialism and political violence in Chile's Atacama Desert; David Maisel's photographic work on opencast mining in the US in *Blacks maps* (2013) and the Atacama Desert (*Desolation desert*, 2018); Allan Sekula's *The Forgotten Space* (2010) on the catastrophic effects of the global economic crisis in urban space; Nikolaus Geyrhalter's film *Homo sapiens* (2016) on the nuclear disaster ruins in Fukushima and Chernobyl; or Karim Aïnouz's and Marcelo Gomes' film *Viajo porque preciso, volto porque te amo* (2009) about the disappearance of landscape and social life prior to the implementation of an upscale irrigation canal in the Brazilian Sertão are thought-provoking examples that come to mind.

Despite their critical importance for the study of the intersections between extraction and extinction, the pictorial drive that lies in these visual works conveys natural and material landscapes as abstract forms, making viewers lose sight of the social relations that organize them as environments. In that sense, they privilege abstraction and the painterly rather than documentation and reference, which works towards a memorialization of the past. According to Jens Andermann (2018), this reveals the exhaustion of the landscape-form—and so of the colonial/modern horizon of Western aesthetics—as a utopian space and time outside capital where accumulation of nature seems endless. In other words, landscape as a form has become incapable of showing the

ever-increasing loss of natural world that has characterized the relentless violence of extractive capitalism. While I agree with this view, in this article I discuss how the ambiguity between documentation and abstraction that pervades the visual representation of the landscapes of extraction may offer a productive way to map out the destruction of planetary ecologies. On the one hand, I argue that extinction is not just an apocalyptic event, but a slow process that affects environments as well as social and cultural formations unevenly depending on their position in the capitalist world-system. As Donna J. Haraway (2016) puts it, "extinction is a protracted slow death that unravels great tissues of ways of going on in the world for many species, including historically situated people" (38). On the other, as Alberto Toscano (2015) has claimed with reference to Allan Sekula, depopulated landscapes highlight how human beings "increasingly appear as supplements, extras or surplus" in places where "dead labor" takes center stage in the shape of the man-altered landscapes of contemporary capitalism. In other words, the planetary expansion of infrastructures of extraction and circulation is making human beings redundant to the production of value.

Taking these two arguments as a point of departure, I contend that the destruction of forms of life on a planetary scale is linked to specific transformations in the capitalist system, where the extraction of value directly from nature emancipates accumulation from labor and thus provokes an even larger alteration of the ecological metabolism in the peripheries of global capital. Understanding the link between extraction and extinction in this way—namely, as specific historical transformations and world divisions of nature and labor—demonstrates how the notion of the Anthropocene is insufficient to explain the ecological crisis in a more systematic way. As Justin McBrien (2016) points out, recognizing geological changes as anthropogenic is part of the systematic conceptual exclusion of capitalism as their main cause. In fact, accumulation by extinction has been fundamental to capitalism from the beginning of what Jason W. Moore (2016, 2017) designates as the Capitalocene, that is, the historical stage dating back to the genocide of native Americans in the 16th century in which nature is transformed into a commodity for the world markets. Drawing on deeper historical roots than the industrial revolution, which is often cited as the starting point of the Anthropocene, Moore's concept of Capitalocene therefore emerges as a better way of understanding the expansion of capitalist modes of production that is putting the life of the planet at risk. What is more important, a critique of the Anthropocene in terms of capital accumulation allows us to see the seemingly depoliticizing depiction of the landscapes of extraction in contemporary visual production as a way to deconstruct the spectacle of apocalyptic futures and restore our capacity to intervene in history.

Patricio Guzmán's cinema offers an interesting case in point of these problematics. His documentary films can be defined as archaeologies of Chile's historical memory, with particular reference to the human rights violation that followed the demise of the revolutionary project in the early seventies. Even the significant trilogy *La batalla de Chile*

(1976-79), which Guzmán conceived originally in terms of direct cinema, ultimately represented an attempt to recompose the fragments of a broken past: the years between Salvador Allende's election in 1970 and the military coup of 1973 that instituted a brutal 17-year-long dictatorship resulting in thousands of people being executed, "disappeared", tortured, or exiled. The consequences of the dictatorship also shape Guzmán's second film trilogy—the films Chile, la memoria obstinada (1997), El caso Pinochet (2001), and *Salvador Allende* (2004)—in which the focus is on the memories of the victims of human rights violations and the amnesia of Chilean society after the 1990 democratic restoration. In this respect, Nostalgia de la luz (2010) and El botón de nácar (2015) represent a significant turn in Guzmán's exploration of the past. Constructed as essays rather than documentary films, they privilege subjective narration instead of historical accounts and emphasize natural landscapes for the representation of memorial sites and historical subjects.² The portrayal of human rights violations in the Atacama Desert or the Patagonia during the dictatorship is also connected to other histories of violence, such as the exploitation of the labor force during the nitrate boom in the North or the extermination of indigenous people from Tierra del Fuego. Furthermore, Guzmán explores the geological and cosmological dimension of the past contained in these landscapes, stretching the temporal and spatial scope of his view. In this fashion, as Martin-Jones (2013) has observed, Guzmán transforms the landscape into an archive of the memory of the universe and advocates for a non-anthropocentric view of historical time.

Guzmán's emphasis on the individual subject rather than history and his choice of the essay form rather than documentary have been criticized for moving away from the political emphasis of his previous films (Klubock 2003). According to Andermann, indeed, in his vindication of the potential of the landscape to reveal the past, Guzmán overlooks the present of the Atacama Desert and Patagonia, which endure multiple conflicts

¹ A variation of *cinéma vérité*, direct cinema seeks to directly capture the truth of reality in the present. Accordingly, Guzmán conceived his project for *La batalla de Chile* as a newsreel to register Allende's socialist government day by day. Chris Marker, after watching *El primer año* (1971), the first part of the project, helped Guzmán to distribute the film in Europe through SLON and provided him with filmstrip to continue the project. By the third year, needless to say, the military coup interrupted brutally both the documentary project and Allende's political experiment. The enormous footage accumulated was secretly transported to Sweden, and then to Cuba, where Pedro Chaskel reassembled it (Rufinelli 2001). In the montage room, the linear narrative of the film was transformed into a circular one, starting with the defeat of Allende's government and ending with the popular empowerment that marked the first year of his presidency. As a result, the film represents the history of the events as a future moment in which the Chilean revolution is still pending (Pérez Villalobos 2001).

² Both *Nostalgia de la luz* and *El botón de nácar* should be seen in relation to other minor documentaries previously made by Guzmán about collective memory and the landscape. *Barriers of Solitude* (1995), for instance, is a portrait of a small agrarian town in the state of Morelos, Mexico, whose inhabitants are more interested in the frequent cosmological events that occur in the sky, such as aurora borealis and comets, than in the historical changes of the country. In *Mon Jules Verne* (2005), Guzmán explores his own personal memories of Jules Verne's books, and the experiences of people who have materialized his voyages and adventures around the globe. Likewise, the documentary *Robinson Crusoe* (1999) focuses on the landscape of this remote island in the Pacific Ocean to reveal the collective memory of its inhabitants. In all of these films, astronomy and science fiction play a significant role in stretching the cinematic scope of Guzmán's films from history to landscape and from the human to the planetary.

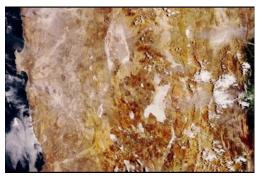
between nature and capital in the present. This is not because of Guzmán's negligence or omission, but because of the landscape's incapacity to expose the violence of extractive capitalism (340). This explains the mesmerizing effect of the images of natural sites shown in these films as well as the explicit lack of reference to mining projects taking place right now at the Atacama Desert and Patagonia. This is particularly problematic, insofar as these regions constitute historical frontiers where capital seeks time and time again to resolve its internal contradictions through new forms of resource extraction. Nevertheless, I argue that it is precisely the ambiguity between document and abstraction in the representation of the landscape in these films which can shed light on the intertwining between extraction and extinction in contemporary capitalism. Based on this, in the following pages I analyze how *Nostalgia de la luz* and *El botón de nácar* seek to portray not only the memories of extraction and extermination during the colonial and modern periods, but also the progressive disappearance of the human subject as the center of history in contemporary capitalism. I contend that there is not a historical present to tell, because history has become something other than the tale of human alteration of the world that we call progress. In this fashion, Guzmán's totalizing aspiration to represent the historical, archaeological, and even cosmological pasts through the landscape becomes a way to explain how capital has moved from the human to the planetary, which entails a larger alteration of ecological metabolism and transforms extinction into the only historical horizon. Following Toscano and Kinkle (2015), I also contend that Guzmán's films must be read as an attempt to create a cartography of the capitalist system and its structural crises beyond the human conceptions of time. Read in this way, Guzmán can help us to understand the global ecological catastrophe in relation to the deep time history of capitalist accumulation and to appreciate the role of the Anthropocene in obscuring the specific political regime responsible for the ongoing waves of extinction.

Nostalgia de la luz: Extraction of the Past and the Futures of Extinction

Nostalgia de la luz examines three different enquiries into the past conducted in the Atacama Desert at the same time: that of the astronomers and their study of the cosmological past; that of the archaeologists who investigate the traces of indigenous cultures; and that of a group of women looking for victims of the dictatorship whose remains were scattered in the sand. Guzmán shows how these seemingly separate searches overlap in the desert, where the total absence of humidity allows the long-term preservation of material traces. The Atacama Desert is described by Guzmán in this way as "a great open book of memory" situated in a country that paradoxically turns its back on history, eager to forget rather than remember. Throughout the film, we see the different conceptions of time at stake in these searches of the past. For astronomer Gaspar Galaz, for instance, any phenomenon that the telescopes or antennas capture in outer

space is just an echo of something that happened in cosmological time. The present time of perception, therefore, does not exist. The title of the film seems to originate in this contradiction: the light coming from the stars was emitted in the past and is a memory of itself even if constitutes our present. From the perspective of archaeologist Lautaro Núñez, however, the desert is a palimpsest of multiple times and communities present in the material landscape. Everywhere we see the traces of continuous waves of occupation and extraction, from pre-Columbian sites and Spanish settlements to modern mines and futuristic telescopes. Núñez points out that our treatment of these different pasts is uneven. Whereas the ancient cultures of the North are carefully preserved in museums, the abandoned mining sites from the nitrate boom are monumentalized and commercialized, and the cosmological pasts are scientifically observed through telescopes, the remains of the disappeared are forgotten in the desert. This leads us to the third conception of time as justice, which is represented through the "Mujeres de Calama", the group of women who comb the sand of the desert looking for the remains of their relatives. For these women, the past is an open wound caused by the human rights violation committed during the dictatorship, and the desert their last hope of finding their relatives and obtaining justice for their disappearance.

In the initial sequence of the film, we see a massive telescope capturing cosmological images such as lunar maria, the aurora borealis, and star showers. Guzmán combines these images of the telescopes with satellite pictures of the Earth that lead to the geospatial localization of the Atacama Desert. The desert is present as a brown patch in an image of the planet evoking "The Blue Marble", the famous photograph taken by the Apollo 17 crew in 1972. Ursula K. Heise (2008) has identified this picture as one of the milestones in the "sense of planet" that underpins consciousness of the Earth as a living organism in our present. Using more satellite images, the film scales down to the desert's surface, a vertical movement which suggests the imperialist gaze behind geological explorations, military interventions and extractive projects (Parks 2015). In this manner, Guzmán seems to switch not only scales of observation, but also forms of appropriation of local and global landscapes through a technological gaze.





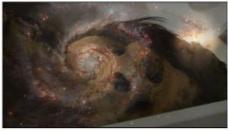
At this point, the film presents a montage of salt crystals, rocks, bones, and finally the impressive telescopes and antennas of ALMA.³ The first signs of human presence also emerge in the film: the astronomers and operators of the telescopes at the observatory, which Guzmán depicts like the setting of a science fiction film. The domes that cover the telescopes resemble houses in an alien landscape, and the astronomers appear as colonizers from another planet. Images of rock paintings and ancient roads also evoke traces of inhabitants from distant pasts and worlds. In addition, the shaking camera suggests a rover exploring a post-human, even extraterrestrial landscape. The whole sequence transforms the Atacama Desert into a token for extraterrestrial imagery familiar from the last few decades. The Atacama Desert has in fact become a preferred location for science fiction films about Mars as well as training for potential travels to the red planet. Furthermore, the astronomers that work with the telescopes from ALMA are close to discovering an exoplanet—a planet like our own that orbits around a star like the Sun at such a distance that liquid water can exist on its surface (Messeri 2016). However, Guzmán uses this otherworldly imaginary to represent the estrangement of human beings from their history, which appears through Chacabuco, the former nitrate mining town located not far from the observatory park that the dictatorship converted into a concentration camp in 1973.

Chacabuco came to life first as Oficina Salitrera Chacabuco in 1924, at the end of the nitrate boom, and closed after the Great Depression in 1935. *Oficina* was the name given to the mine sites established in the second half of the 19th century during the nitrate boom. Apart from sites of extraction, these were units of colonization of indigenous communities and locations to which workers from the South were displaced to work the mines. In 1971, Salvador Allende transformed the *oficina* into a Historical Monument to commemorate the nitrate workers, but between 1973 and 1975 the Junta Militar used it as a prisoner of war camp and torture center for Allende's supporters. Surrounded by anti-personnel mines until 1997, Chacabuco exemplifies the low intensity warfare that Pinochet's regime implemented against Allende's supporters. Moreover, the site embodies the continuity between the exploitation of the miners in the 19th century and the destruction of the working class that created the political conditions for the transition to a new stage of capitalist accumulation in Chile after the democratic restoration of 1990 (Spira 2012).

The film presents the relationship between Chacabuco and the observatory park by means of an extended sequence displaying archaeological, historical, and cosmological artifacts and events. First, a mummy from the Chinchorro culture, from which the oldest examples of artificially preserved human remains derive, blends with the image of a

³ ALMA (Atacama Large Millimeter/submillimeter Array) is a massive observatory park situated between Calama – site of Chuquicamata, one of the largest copper opencast mines – and San Pedro de Atacama, the starting point of the Spanish colonization. This observatory, managed in partnership by the US, the EU, and Japan, among other countries, is one of the largest of its kind and focuses on the study of the early universe. It expects by 2020 to host 70% of the telescopes of the world, which will require enormous infrastructures to store and transport the information extracted (Messeri 2016).

supernova. Following this, views of indigenous rock paintings, salt crystals and blue sky precede a slow exploration of the mining site. Inside the mining site we see close-ups of forsaken objects: a boot, a bulb, bottles, spoons. The camera then explores a cemetery next to the mining site. The remains of a miner lead to iconic images of Luis Emilio Recabarren, founder of the Partido Obrero Socialista and one of the driving forces in the political organization of the workers of the North. A train crosses the horizon, dividing the screen in two. The metallic noise of the train switches to the aerial noise of the observatory park, where still photos of the impressive telescopes intersect with aerial footage of Chacabuco. At this point, Guzmán explores the architecture of the site through interviews with survivors of the concentration camp, who examine the inscriptions on the remaining walls.









In my view, the whole sequence comprises the history of capital accumulation in the Atacama Desert from the point of view of extinction. First, the sequence connects the appropriation of labor-force and land during the colonial period, which led to the extermination of indigenous cultures, to the nitrate boom in the 19th century that entailed the deaths of thousands of workers in the name of the industrial revolution. Secondly, the cargo train on the horizon symbolizes the extraction of minerals that provide the means for the accelerated capitalism that Chile is currently experiencing. Transnational corporations now extract around 43 million cubic tons of mineral per year from the Atacama Desert, particularly metals like copper, molybdenum, nitrate, lithium, and borax that are crucial for industries such as electronics, informatics, transportation, pharmaceutics, and food substitutes. As a result of these extractive processes, many urban and rural centers of the North have been transformed into sacrifice zones, which impacts profoundly on the social and ecological conditions of the region (Folchi 2003). Northern Chile is indeed a space of intersection of multiple criminal activities, such as money laundering or human trafficking, with disastrous rainy seasons, massive flooding, and

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earthquakes. At the same time, the images of telescopes moving mechanically suggest the radical automatization of the labor process in contemporary capitalism, in which telescopic extraction of material and virtual resources contributes to the disappearance of the historical subject. This illustrates with precision why Elizabeth Povinelli considers the desert a central geontological figure. The desert is a place full of materials forms, like fossils, that were once "charged with life", but that as a form of fuel or energy can provide the conditions for a specific form of life – "contemporary, hypermodern, informationalized capital" (17).

In contrast to these processes of extraction and extinction, the last section of the film concentrates on the "Mujeres de Calama", the group of women who search for the remains of their relatives killed by the Pinochet regime. Guzmán depicts them pacing around the desert as if they were also collectors of the bones of an extinct species. The sequence reminds one of William Dyce's Pegwell Bay, Kent—a Recollection of October 5th 1858, a painting centered on the encounter between human and cosmological time through women who gather meteorites. The "Mujeres de Calama" look for remains of their relatives, but in a similar way to the women in Dyce's painting, they find rocks and fragments of meteorites in the process. Their search for future justice thus becomes intimately connected to the material traces of the geological and cosmological past. This is tragically expressed in the exhumation of a woman executed during Pinochet's regime that Guzmán's film crew came across during the shooting of the film. The exhumation is depicted by Guzmán as an archaeological site, where the forensic anthropologists are disinterring not just the skeleton of a disappeared person, but also the fossils of another species. Later on in the film, Guzmán interviews astronomer George Preston, who explains how the calcium in the bones of the disappeared was made shortly after the Big Bang, meaning that we are constituted by the same matter as the Universe: "We live among the trees, but we also live among the stars [....] The calcium in my bones was there from the beginning". The film points thus towards the coalescence of human and cosmological time in the Atacama Desert, which becomes an archive of rocks and bones where the memories of past and future extinctions are written. As Nilo Couret (2017) claims, this shows how the object of longing in *Nostalgia de la luz* is not located in the future or the past, but "in the meeting point between both", which allows Guzmán to tell the history of human rights violation "not in a retrospective mode but instead in a subjunctive mode" (88). In this fashion, the demand for memory and justice carried out by these women stands against the primacy of profit and presentism in neoliberal Chile, where no future other than capital is possible. Instead of possessing extractive value for the global markets, the bones of the disappeared that these women look for are valueless and "do not matter to anyone".





From left to right, William Dyce, *Pegwell Bay, Kent—a Recollection of October 5th 1858* and the "Mujeres de Calama" in *Nostalgia de la luz*

By juxtaposing the search for justice with the struggle against neoliberalism, Nostalgia de la luz subtly reveals the radical transformation of the Atacama Desert into one of the major extractive zones of the planet after the dictatorship (Arboleda 2015). Now, if these processes of extraction are not explicitly depicted in *Nostalgia de la luz*, is because in the current stage capital accumulation has become progressively emancipated from labor. In this way, the film opens an explicit but negative dialogue with *La batalla de* Chile. By looking at the ruins of the revolutionary culture in the desert, Guzmán shows the disappearance of the working class not only as the engine of history, but also as a subject in documentary film. Furthermore, through images of desolate landscapes, where only forensic searches of the past can take place, Nostalgia de la luz makes manifest the anticipated memories of extinction caused by the new waves of extractivism in the Atacama Desert. The question posed by the film is whether the production of life in extractive capitalism will increase the levels of death and desertification until history is no longer possible. This is even more significant in a landscape whose resemblance to Mars materializes the desire to expand capitalist life to other worlds. Mars, however, symbolizes not only the imagination of other worlds, but also how the planet Earth could become, in Elizabeth Povinelli's words, a place "once awash with life, but now a dead orb hanging in the night sky" (36). In this sense, Guzmán shows how the exploration of other planets contributes to subordinating the continuity of life to the discovery of other worlds and new frontiers of extraction, and not to a change in the regime of accumulation responsible of the global ecological crisis. In other words, the film is saying that, if we continue relating to nature as an endless source of material for accumulation, and the desert as if it were merely a deposit of lifeless minerals, then our memory as historical subjects will be only the memory of an extinct species. And those who dare to unearth our remains in the future will do so only to discover our exterminating nature.



The Debris of History in El botón de nácar

In *El botón de nácar*, Guzmán explores the intersecting histories of extraction and extinction in Patagonia. In the same way as the desert in *Nostalgia de la luz*, water becomes an archival device that preserves material traces from the past, tying together the seemingly discontinuous histories of the indigenous people from Tierra del Fuego and the dictatorship. The point of connection between these histories is a pearl button found with one of the sections of railroad track used to sink the bodies of political prisoners into the sea by agents of the military regime, which Guzmán links to the pearl button in exchange for which the Yaghan native Orundellico—later known as Jemmy Button—was extracted by Captain FitzRoy from Patagonia to England in 1830. According to Guzmán, these different buttons tell "una misma historia de exterminio", proving that water does not just have a voice but also memory ("el agua tiene memoria").



The film begins with the image of a 3,000-year-old quartz rock containing a drop of water found in the Atacama Desert, followed by views of telescopes of the observatory park. Mesmerizing views of Patagonia's desolate marine landscapes fill the following minutes of the film, accompanied by the sound of rain pouring, rivers running and icebergs cracking—a reminder of the effects of global warming in the Antarctic. As one of the last frontiers for global capital, Patagonia is currently experiencing huge ecological

distress due to the extraction of resources such as natural gas, oil, and coal as well as the use of water for hydroelectricity and fish farming. Guzmán captures this extractive view through satellite images of Chile's 2,670-mile oceanic coastline, which despite its importance for Chilean identity and national economy, is now overwhelmingly occupied by transnational fishing corporations as a result of the neoliberal reforms that granted rights of exploitation to private companies almost without public regulation.⁴ At this point, Guzmán concentrates on the history of the indigenous peoples of Tierra del Fuego—Selk'nam, Kawésqar, Aónikenk, Haush, Yaghan—that were exterminated by colonial settlers between 1890 and 1910. In this way, the genocide of these indigenous peoples appears as a counterpoint to the beautiful sights of the Patagonian landscapes that open the film, and to the massive commodification of water that guides the ecologically devastating economic success of contemporary Chile.

Using ethno-visual documents created by the missionary priests Alberto Maria de Agostini and Martin Gusinde, and Paz Errázuriz's extraordinary photographic work in Los nómades del mar from 1996, Guzmán reflects on different moments in the genocide of these native groups that established themselves in the region around ten thousand years ago, after the last interglacial period. The origins of the genocide can be found in the early 19th century, when the Chilean Nation State began the occupation of the territory. This led to the sheep farming boom and the gold rush of 1890-1910, which attracted large number of Argentinians, Chileans, and Europeans. The new dominant class of settlers began a violent process of appropriation of pristine ecosystems and extermination of indigenous peoples.⁵ The Chilean State openly supported the extermination by persecuting and relocating the indigenous people of Tierra del Fuego on Dawson Island, where European settlers such as Julius Popper hunted them down for bounty. In less than 50 years, the Fuegians were decimated to the point of extinction. Guzmán interviews three survivors of the Yaghan genocide (Gabriela, Martín, and Cristina) as if they were the last reservoirs of a memory doomed to disappear. One of the striking passages of the film occurs when the filmmaker asks Gabriela to translate some Spanish words into Yaghan language. All of the words have a meaning in Yaghan, namely "foca, ballena, canoa, remo, papá, mamá, niño, Sol, Luna, estrella, playa, cholga, botón", except "dios" and "policía", two key words in the process of colonization operated by Western imperialism that led them to extinction.

⁴ A defining moment in the recent history of Chilean Patagonia was the acquisition by deep ecologist and magnate Douglas Tompkins of more than 2 million acres to protect wilderness from appropriation and exploitation, resulting in a process of "green" dispossession and ecological imperialism that only opened the door for further exploitation. Such transformation of Patagonia into a commodity frontier can be seen symbolically expressed in the 200 ton Antarctic iceberg that Chile brought to the Seville Expo of 1992. This event, brilliantly depicted in Ignacio Agüero's documentary film *Sueños de hielo* (1992), was according to cultural theorist Nelly Richard (2001) a performance of "identity marketing" that intended to show not only the country's capacity to export and to transport resources from remote regions, but also the image of a nation cleansed of the past and open to a future of extraction and pillage.

⁵ Settler colonialism, unlike colonialism as such, did not work in Patagonia by exploiting the indigenous population economically, but by removing and exterminating them, naturalizing extinction as a condition for progress (Harambour and Barrena 2018).

Dawson Island serves in the film as the first link between the genocide of the indigenous people of Tierra del Fuego and the military dictatorship of 1973-1989, which established a concentration camp where around 700 political dissidents were imprisoned and tortured. Guzmán interviews a group of survivors of the camp, making them pose in front of the camera in similar ways to the Fuegians of the 19th-century pictures, thus connecting their histories of defeat as well as survival. Guzmán takes this analogy to draw together the history of Yaghan native Jemmy Button and teacher Marta Ugarte, a member of the Chilean Communist Party assassinated by DINA, Pinochet's secret police. Though these poetic operations can be seen as weakening the historical dimension of Guzmán's recent films, which makes them essays rather than documentaries, they make manifest the relationship between different instances of racial and political violence operated by both colonialism and neoliberalism in the peripheries of global capital. The story of Jemmy Button is crucial to understanding this relationship. He was one of the four Yaghan taken back to England in 1830 by Captain Robert FitzRoy in the HMS Beagle. As Benjamin Subercaseaux tells in his novel *Jemmy Button* (1950), the visit of the Yaghan to London constituted a public sensation and they even were received by the Queen. The Yaghan not only contributed to the kind of archaeological pleasure that fossils, ancient artifacts and prehistoric animals afforded in museums and public exhibitions in Victorian England (Dawson 2013). At the same time, they represented a central point of comparison for evolution theory. Beagle's crew member Charles Darwin, who travelled with the Yaghan back to England, despite calling them "animals", considered them "fellow-creatures, and inhabitants of the same world" (1839: 309). The Yaghan, in other words, were an example of the continuity of natural history, and thus threw "more light on the appearance of organic beings on our earth, and their disappearance from it" (253). Darwin's claims reveal not only the imperial gaze behind evolution theory, but also the effect that the negative environmental changes provoked by industrialization had in 19th-century England. In this sense, Jemmy Button's travel to England meant a clash not only between present-time British and past-time Fuegians, but also a collapse between the time of nature and the time of capital in the industrial revolution, which contributed to the largescale transformation of the planet's metabolism that is putting us on the same path of extinction as the Yaghan and the Victorians in the past.



Jemmy Button before and after his journey to England. Robert FitzRoy (c. 1830-1834)

The assassination of Marta Ugarte, whose body was thrown into the sea and then washed up by the Humboldt Current on Los Molles beach in September of 1976, is also relevant to the intertwining of extraction and extinction of bodies displayed in the film. Ugarte was the first of the "disappeared" whose remains were found and publicly claimed as proof of state terrorism during the dictatorship. In this section of the film, Guzmán reconstructs—with the help of journalist and human rights activist Javier Rebolledo— Ugarte's murder and the attempt to conceal her corpse. Rebolledo's reconstruction is a dark passage in the film that reveals the technologies of death that Pinochet's regime used against its opponents. It evokes the forensic nature of Guzmán's *The Pinochet Case* (2001), in which images of bones of the disappeared relentlessly haunt Chilean democracy in the present, as depicted in the film. Apart from the electric bed or the lethal drugs used during Rebolledo's reenactment, Guzmán focuses particularly on the sections of rail that the secret police used to put on top of the bodies before throwing them into the sea. Some of these rails are on display in Villa Grimaldi, one of the torture centers of Pinochet's secret police, as a reminder of the techniques and non-human alliances developed by the dictatorship to kill dissidents. At the same time, the rails evoke the trains we see in Nostalgia de la luz crossing the desert in search of minerals. Interestingly enough, they are one of the symbols of the deindustrialization practiced by the dictatorship, which dismantled the train system that used to connect the country's long territory. The rails thus illustrate the transition from an era centered on development and emancipation, which Allende had chosen to symbolize with "el tren de la Victoria" ("the victory train") during his 1958 presidential campaign, to another era centered on automatization of the labor process and disappearance of the working class. Furthermore, they link the history of technology with the memories of violence during the dictatorship, and so the history of extraction with the memories of extermination.



As a critique of Chilean indifference to these past histories of violence represented by Jemmy Button and Marta Ugart, Guzmán displays the unfolding of a large-scale cardboard map of Chile made by painter Ema Malig. By slowly panning across the map in slow motion, he uncovers the memories of violence that shape national landscapes. In *Nostalgia de la luz*, Guzmán shows that the landscape of the desert can store the past, but in *El botón de nácar* he is proposing waterscapes as a way to connect and even to

remember the two histories of extraction and extinction. The idea that water has memory, however, implies that the past is actually fluid and cannot be entirely fixed either in time or in space. As the only chemical compound that can be found as a solid, a liquid, and a gas, water is the most formless materiality of all. Every trace of information contained in water will eventually disappear due to its fluidity, but this very information will return in another form without form. For this reason, the film follows the signals, indications and vestiges of history as if they were pure vibrations of liquid matter. Many sections of the film present sounds and vibrations produced by water, from waves and rain to icebergs collapsing into cold lakes to bodies falling into the sea and oars sinking in the waterways. In parallel, the film inserts aural fragments from the languages of Fuegians. Anthropologist Claudio Mercado also performs a series of vibrating chants in the film that resemble the sound of water. In this way, El botón de nácar is flooded with sonic encounters with the formless memory of water. At the end of the film, the sad and sometimes soporific Guzmán's voiceover sets the tone of this sonic encounter. While we see images of a Quasar recently discovered, which holds 120 million times more water than the Earth in the shapeless form of vapor, Guzmán wonders how many wandering souls might, like the indigenous people of Patagonia or the victims of the dictatorship, find refuge in this vast ocean drifting in the cosmos. Perhaps the answer to that question wanders in the water of our planet.

Conclusions

Patricio Guzmán's *Nostalgia de la luz* and *El botón de nácar* show how the relationship between reference and abstraction in the representation of landscapes of extraction is directly proportional to the processes of extinction developing in the Capitalocene. The apparent incapacity of the landscape form to represent the violence of extraction responds to capital's capacity to work beyond the zones of extraction already available. In other words, the extractive view operates by producing historical natures – through science, technology and power—as abstract value to be appropriated (Moore 2017). The production of these historical natures implies a regime of visibility of the frontiers of appropriation that sees accumulation as endless. In this illusion, capitalism sets in motion its strategies of destruction, including its own. The landscape form responds to this totalizing impulse of capital, but fails reciprocally to represent a future with us. The result can only be the fragments of a broken totality without human presence.

Like the landscape as a form of representation, there is an opacity and obliqueness in the apparatus of extractivism that renders invisible its own activities. In this way, the fantasy of transparency in visual representations of commodity chains, which promotes ethical consumerism as a possible solution to environmental issues, epitomizes the "new kind of opacity" that occludes the increasing scale of the capitalist system (Toscano and Kinkle 2015). In contrast, the failed transparency of the landscape might be able to better expose the anticipated memories of extinction that can result from the expansion of

extractive practices to planetary levels. Guzmán's use of landscapes as archives of the past functions in this way as a sort of prolepsis of world loss in the exact moment when the planet is becoming fully appropriated by capitalist modes of production. Memory, in this case, does not amount to memorialization, but to warning and awareness. As Diana Colebrook (2014) puts it, the discourse on the end of the world "relies on looking at our own world and imagining it as it will be when it has become the past" (24). While this might sound pessimistic at first glance, Colebrook claims that "in imagining this world after humans we are reading what is not yet written or inscribed" (24). I argue that what is not yet written are the conditions for socio-historical change needed to halt the process of accumulation by extinction in late capitalism. In this respect, *Nostalgia de la luz* and *El* botón de nácar show there is an immanent force in the landscape that offers submerged perspectives on the social/natural relations which can challenge such processes perspectives bearing on the very histories of extraction and extinction already inscribed in the matter of the landscape. These histories may concern disappeared subjects, but their capacity to remain in the landscape can serve as an image for a future in which we are still here.

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