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ABSTRACT

For several years I have photographed primary hardwood forests along the imaginary line of the equator to communicate, persuade and warn of the continued ecological destruction that is occurring along this line. My plan was to capture arcadian visions of equatorial hardwood primary forests before they are destroyed and to show how this arcadian vision is disrupted by a more dystopian one. The images in this project were photographed in three areas that circle the equator: Southeast Asia, Africa and South America, where over half the world's rainforests are concentrated, and which I visited to follow the line. *Line* is an attempt to understand the current pressures on the equatorial environment and create a photographic exploration of ecology that highlights and foregrounds land, space, territories, boundaries and power. For this, my field of study and research considers ecology through the theory and lens of photography.

LINE

Borderlands and Political Ecology: A photographic exploration
of the environment, territories, boundaries and power near the
imaginary line of the equator

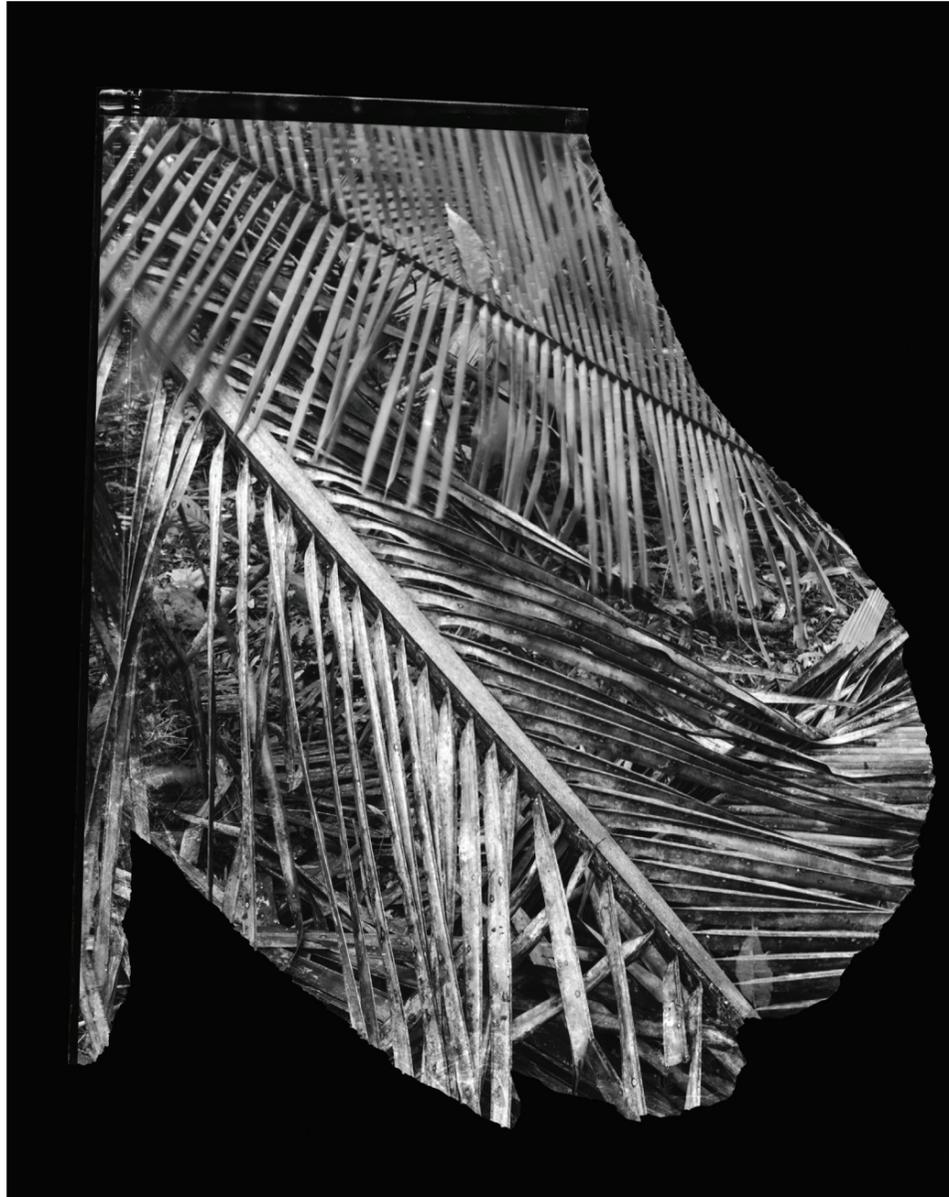


Figure 1: Amazonas, Nova Olinda do Norte 3.53185°S, 59.0540°W, 2018.



Figure 2: *no man's land*, 2017. Fiber print. 40 x 50 cm.

INTRODUCTION

For several years I have been photographing primary hardwood forests¹ along the line of the equator, the illusory line on the sphere's surface that divides Earth into northern and southern hemispheres. The line of the equator has geographic significance but no material quality; as a physical mark it exists on maps, where it may appear as a line in red or black dividing the earth in two. The land this line intersects seems almost as random as the divisions made by the lines between countries and people during the colonial era of boundary creation.

¹“ An old-growth forest, also termed primary forest, virgin forest, primeval forest, late seral forest, or (in Great Britain) ancient woodland, is a forest that has attained great age without significant disturbance and thereby exhibits unique ecological features classified as a climax community” (White & Lloyd, 1994: online). While the word forest conjures up a smaller and more singular sense than the word “jungle”, I use “primary hardwood forest” instead of “jungle” because the latter may be problematic through its association with colonial myths.

PREFACE

[Imaginary Lines]

While this project is about the environment, it is also very much about photography and my relationship with it over 40 years. I have been a photographer (of one sort or another) my entire adult life, but in the last 10 years I have become more introspective, and I turned away from commercial photography to immerse myself in higher education, starting with film studies, and for the last six years, fine art. I am deeply interested in photography: how it works, what it does, how it can persuade and become part of activism, and how photography can influence or change peoples' minds or behaviours, as I hope it has changed mine.

As a fourth year undergraduate, my work focused on the no man's land on the border between South Africa and its neighbours. "No man's land" is defined by the Collins Dictionary as "land between boundaries, especially an unoccupied zone between opposing forces" ("No man's land" n.d.: online). For one particular shoot I attached a 4 x 5 field camera to a railing on the Beit Road Bridge between South Africa and Zimbabwe to photograph from a bird's eye view. My intention was to create a series of photographs from border fence to border fence. On the third day of shooting, I witnessed a man below crossing illegally from Zimbabwe into South Africa. My camera was set up on the left tributary of the Limpopo River, so I loaded a film slide and waited for the moment the man would enter the frame. Like the man crossing illegally from Zimbabwe to South Africa, my queer sexual identity would have similarly caused me to become illegal had I entered Zimbabwe. While my sexual identity is not prominent in the current body of work, it was nonetheless a profound moment for me, as I realised the significance of border lines across the planet and how meanings are created and enforced on either side of these hypothetical lines. The Limpopo is a colonial-era boundary that even in the present separated and defined both of our existences, a single imagined boundary that determined our constitutional rights, and in this moment I realized that this "imaginary" line confronted my sexuality, space and embodiment (Halberstam, 2005: 15). This moment led to my acknowledgement that crossing the imaginary line of a border "is not only a 'national signifier' but is a space of internal markers of potential insight and change" (Nuttall, 2005: 221). This experience made me aware of the longitude and latitude of my location as I moved into my MFA project, in which I photographed near the equator. Along this imaginary line, I considered the politics and histories that surround these ecological spaces.



Figure 3: Alan Cohen, *Improbable Boundaries* (Equator at Mitad del Mundo), 1999.

But what really drew me to this line, this equator, were the forests. The images in this project were photographed in three areas that circle the equator: Southeast Asia, Africa and South America, where over half the world's rainforests are concentrated, and which I visited in order to follow the line and the forests along it. Due to geographical and border restrictions, I did not follow the line of the equator exactly and initially concentrated on photographing the as yet unspoiled aspects of the forests. As I walked further along the equator, I felt the encroachment of human presence in the natural environment, felt the destruction more keenly, as landscapes disappeared due to human "progress" and "development". This project traces the histories and politics of the current devastation and the imminent habitat destruction that is yet to come.

I want my photographs to communicate, persuade and warn of the continued ecological destruction that is occurring along this line. My plan was on the one hand to capture arcadian visions of the equatorial hardwood primary forests before they are destroyed (an act of documentation and advocacy, even) and, on the other, to show how this arcadian vision is disrupted by a more dystopian one.

Line is an attempt to understand the current pressures on equatorial environments in order to create a photographic exploration of ecology that highlights and foregrounds land, space, territories, boundaries and power. This exploration considers the lines of national borders, the borders of national parks, reserves and protected areas and the political ecology of the equatorial primary hardwood forests.



Figure 4: Richard Mosse, *Weeping Song*, 2012. Digital c-print.

My work is an investigation into the entanglement of this history in the present and of “how imagined boundaries emerge and are articulated, spatio-political domains, what boundedness is, and how power moves from and into the land” (Nuttall, 2005: 225).

Travelling along the line of the equator made me realise that the environmental problems in the post- and neo-colonial equatorial zones of Africa, Asia and South America are similar and interlinked. The political ecology of each equatorial zone shares different yet similar colonial legacies that have led to the current problems of neoliberal exploitation and deforestation. These countries, “with emerging economies, some with poor governance and corruption, often have poor environmental policies that multinational companies use to their advantage” (Kabemba, 2013: online). In almost every tropical rainforest, “capitalism, neoliberalism, industrialization, contract secrecy, mining, tax evasion, transfer pricing, corruption, clear cut logging, urban sprawl and destruction” (Kabemba, 2013: n.d. online) are, and were, evident in various forms. Foreign investor syndicates “consciously engaged in ‘shape shifting’ [using supply chains], leaving it unclear who is responsible for the economic, human and environmental consequences” (Gewald & Soeters, 2010: 159). The neoliberal strategies of multinational companies have allowed for an unknown and undocumented situation in which forests were, and still are, literally disappearing.

In the documentary film *Jane* (2017), Jane Goodall asks, “How is it that the most intellectual being on this planet is destroying its own home?” This remark from the British primatologist and anthropologist reverberated in my mind as I observed the conditions of the equatorial zones behind the curtain of trees. These spaces were very difficult to reach, often only accessible via logging roads, leaving every primary forest fragmented or confined inside the borders of militarised national parks. Over time I heard more stories from environmentalists of land concessions, subsistence farming, illegal logging and poaching. I began to feel a deep uneasiness – a combination of ignorance, helplessness and confusion. I began to use the equator as an imaginary guiding line along which to analyse this ecological destruction. To this end, my field of study and research considers political ecology² through the lens of photography.

² According to Peet and Watts (1996: 6), “Political ecology is the study of the relationships between political, economic and social factors with environmental issues and changes. Political ecology differs from apolitical ecological studies by politicizing environmental issues and phenomena”. The authors continue that “the academic discipline offers wide-ranging studies integrating ecological social sciences with political economy in topics such as degradation and marginalization, environmental conflict, conservation and control, and environmental identities and social movements.” Robbins (2004: 14) argues that the term political ecology insists on “environmental matters of concern as inextricable from social, political, and economic forces”, while Demos (2016: 8) claims that “political ecology recognizes that the ways we regard nature carry deep implications and often unacknowledged ramifications for how we organize society, assign responsibility for environmental change, and assess social impact.”

POLITICAL ECOLOGY
ON THE LINE OF THE
EQUATOR

“Landscape is a way of seeing that has its own history, but a history that can be understood only as a part of a wider history of economy and society; that has its own assumptions and consequences, but assumptions and consequences whose origins and implications extend well beyond the use and perception of land.” (Cosgrove, 1998: 2–3)

“The eyes of the intruders saw the forests as primeval and empty” (Hecht & Cockburn, 1989: 30) – and therefore open for the taking.

To understand the destruction of the equatorial environments, land and territories that I visited, I needed to unpack the history and vectors of power that had allowed such destruction to take place. On reflection, I recognised that, as Stephen Ingold (2007: 1) writes, "the effect of boundary creation, through lines drawn on maps, affected how the earth has been divided." Ingold (2007: 2) continues that "colonialism is not the imposition of linearity upon a nonlinear world, but the imposition of one kind of line on another", one that converts "the paths along which life is lived into boundaries in which it is contained". Simply put, lines are a symbol of control, captivation and absorption and not of reality – except for the reality that humans have declared themselves to be the owners of certain geographical zones through the imaginary lines they have created (Ingold, 2007). The aftermaths of colonialism have revealed some of the dire environmental consequences caused by these border lines to the topography they control.

The destruction of the hardwood forests and the politics of ecology are a direct effect of differences "that go back to the beginning of human exceptionalism and colonial rule" (Neumann, 2002: 15). In 1637, René Descartes declared that "Instead of this speculative philosophy taught in the schools, we may thus discover a practical philosophy whereby we could know the force and actions of ... all the bodies in our environment ... so as to make ourselves, as it were, the masters and possessors of nature. "

Ever since the Enlightenment, Western philosophers, such as René Descartes, Francis Bacon (1561–1626) and François-Marie d'Arouet (1694–1778) (better known by his pen name, Voltaire) have shown us a nature that is controlled, "universal and grand but also mechanical and passive" (Tsing, 2015: VII). Nature was seen as a resource for "the moral intentionality of man, which could tame and master nature" (Tsing, 2015: VII), and the Enlightenment principles of "Cartesian dualism conceptually divided human and nonhuman worlds into separate domains of reality, situating the nonhuman world as passive and objectified" (Adams & Mulligan, 2003: 24). This conceptual divide and disconnect meant that in essence Europeans "rationalized the colonization of nature" (Adams & Mulligan, 2003: 24).

Colonial propaganda and ideology utilized the visual in the form of sermons, poetry, books, maps, printmaking, paintings and later photography promoting "the idea of an 'uncivilised' and 'empty' world to be conquered" (Hochschild, 1999: 310), contributing to "an idealized and exoticized nature that had been colonized in concept as well in practice" (Demos, 2016: 8). A key part of the colonial vision was to depict empty landscapes and to portray indigenous people as "uncivilised" and in need of "progress" and "development". Once colonial practice had become visualised and justified in the mind, an insidious and multifarious "pattern of bureaucratic rationalization, scientific and technological mastery" (2016: 8) could take place through military domination. This domination was deployed through the establishment and control of a legal system that could in turn "expand the capitalist economy in order to manage and maximise the possibilities of resource extraction" (Demos, 2016: 8). As Demos (2016: 14) writes "Ecology was far from the innocent discipline named; rather, it compromised the science of the empire." [my emphasis].

Fifteen years before colonial settlement in southern Africa's cape, Descartes (1652) used the words "masters and possessors" of nature. In 1866, Ernst Haeckel, a German biologist, used the term "ecology", "which designated the body of knowledge concerning the economy of nature; the investigation of the total relations of the animal both to its organic and inorganic environment" (Hughes, 2009: 7). Already we see a shift from mastery to economy. Colonialism's true intent is signalled in the words "the economy of nature". Thus, the notion of "ecology was formed at the height of European colonialism" (Demos, 2016: 14).

Marx suggests that "European industrial capital sought to secure markets by force, by the colonial system" (Lorraine, 1989), which was motivated by the search for raw commodities and fertile agricultural soil essential to the work and support of the Industrial Revolution. In the colonial mind, "Nature" (land, biomes, plants and animals) was to be used, possessed, exploited, structured and mastered for European economic benefit – "the very essence of modernist thinking drove colonial exploitation, which was capitalistic in its intent" (Demos, 2016: 14).

In an article on necropolitics³, Achille Mbembe (2003: 26) considers colonial occupation itself as a matter of "seizing, delimiting and asserting control over a physical geographical area; of writing on the ground a new set of social and spatial relations". New lines were written on the ground as territories were created. Mbembe (2003: 26) perceives "territorialisation as actualised through the production of boundaries and hierarchies, zones and enclaves; the classification of people according to different categories; and, finally, the manufacturing of a large reservoir of cultural imaginaries." These categories and imaginaries give different rights to different people within the same territories; colonialism introduced new borders and different conceptions of race, religion and gender that determined people's relationships to each other and to the land.

³ Defining necropolitics, Mbembe (2003: 11) writes that the "ultimate expression of sovereignty resides, to a large degree, in the power and the capacity to dictate who may live and who must die. Hence, to kill or to allow to live constitute the limits of sovereignty, its fundamental attributes. To exercise sovereignty is to exercise control over mortality and to define life as the deployment and manifestation of power."



Figure 5: Henrik Håkansson, *Fallen Forest*, 2006. Recreated in 2010, 2011.

Colonialism, with its imperialistic intent, is defined by "appropriation and mastery." Decolonising nature, Demos (2016: 202) explains, "is to cancel the subject-object relationship between humans and the environment"; to remove the early philosophy of Descartes' "mastery and possession" and "acknowledge the multiple levels of colonial violence in order to envision an alternative world". Decolonising nature addresses the long history of exploitative capitalist intent in order to understand new ways of going forward (Demos, 2017: 7). The dream of modernisation was that all people might benefit from progress, but instead it has become a story of destruction and, over the centuries, the colonial mindset of "mastering and possessing nature" has rendered the future of human life fragile and unstable (Tsing, 2015: VII). Anthropologist Anna Tsing notes that "we are in a new state of thinking and imagining the contours of a strange new world" (Tsing, 2015: 3).

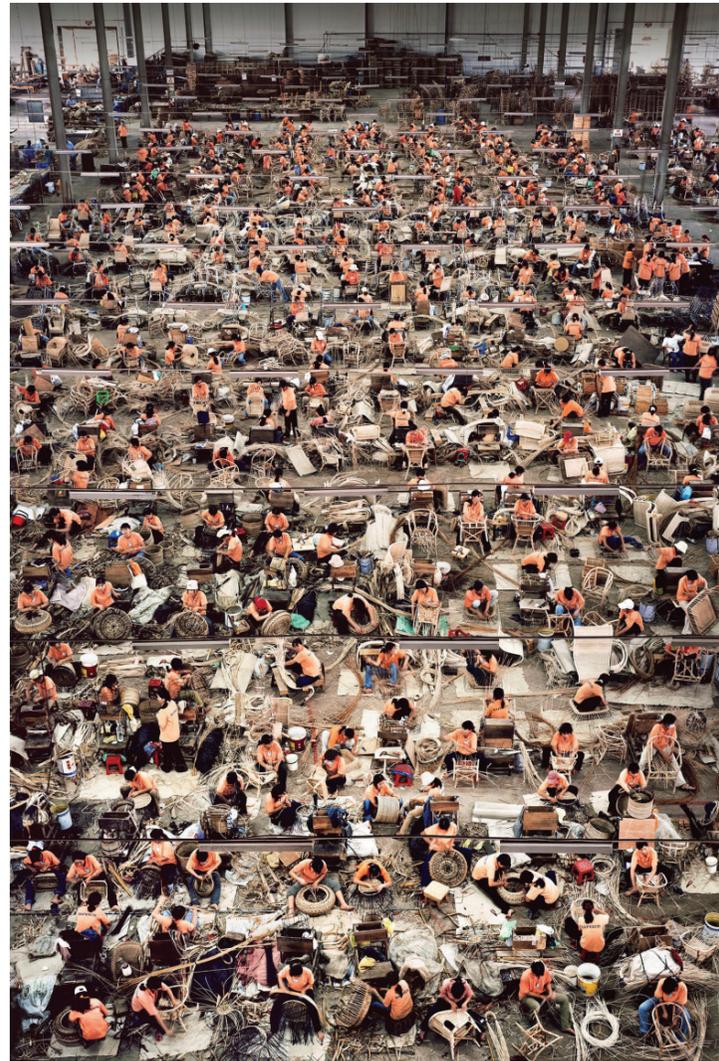


Figure 6: Andreas Gursky, *Nha Trang, Vietnam*, 2004. Chromogenic process print. 295 x 207 cm. Gursky's image shows low-wage labour and raw resources in the supply chain model.

During the “late 19th century and early 20th century, as the land was being drained of its resources, concern began to rise regarding preserving parts of nature for future generations” (Neumann, 2002: 33), and the idea of protecting pockets of land reserves and biomes gained traction in the form of national parks. Designating land for national parks (and protecting areas in the form of reserves) was a colonial political imaginary of space and territory (Neumann, 2002: 33), where the creation of ecological borders and designations of “environment space, territories and boundaries were essential to political power and land management” (Neumann, 2002: 33). In a book about critical human geography, Neumann (2002: 33) notes that “eliminating the record of Indigenous culture and history, and replacing it with an empty landscape, was part of colonial radical identity.” With the aid of national parks and imagined borders, “the history of the conquest of humans was transformed into the conquest and control of nature” (Neumann, 2002: 30).

In our contemporary times, reserves, “national parks and protected areas act as sites of preservation and realms for endangered species” (Neumann, 2002: 24–25) and, under contemporary capitalism, the need for protected tropical areas has been exacerbated by deforestation and species extinction. “This new layer of meaning was not prevalent in the nineteenth century, when the concept of ecology and park creation was nascent” (Worster, 1985: 192). The fragmented equatorial reserves are currently “Edens under glass, barriered zones that keep species in and exclude local populations that are often denied any role in sustaining the ecosystem” (Hecht & Cockburn, 1989: 27). This is complicated by reserves being militarised for protection, leaving any unmarked areas open to poaching and resource extraction (Hecht & Cockburn, 1989: 28). According to the International Union for Conservation of Nature (IUCN, 2016: online), 14.7% of the planet’s land is protected by ecology zones, but “crucial biodiversity zones have been left out.”

“Geologists have begun to name our time as the ‘Anthropocene’, an epoch in which human disturbance outranks other geological forces” (Haraway, 2014: 312). In essence, collective human action has become “significant on the scale of Earth history” (Green, 2018). The Anthropocene begins with the “advent of modern capitalism, with its supply chains affecting long-distance landscapes and ecologies” (Tsing, 2015: 19). Capitalisms’ progress and development has turned environments into resources, “obscuring collaborative survival” (Tsing, 2015: 19), and it has become critical that the divide between nature, species, biomes and humans be conceptually rethought (Green, 2018).



Figure 7: Hans Haacke, *Rhein Wasseraufbereitungsanlage (Rhine Water Purification Plant)*, 1972. Installation. This installation explores the conceptual divisions between society, nature and environmental destruction and is intended to alert us to the problems of organising society and nature in an urban setting.

⁴“Extractionist oligarchies are foreign syndicates backed by powerful banking interests that buy the right to fiscally administer an area or territory for mineral or crop profits ... the syndicate obtains exclusive rights to contract, levy taxes, exact customs and rent land for a certain number of years (usually decades)” (Hecht & Cockburn, 1989: 129), with all mineral and legal rights ceded to the syndicate. The American bauxite mines in the Amazon are an example of an extractionist oligarchy.

Competitive capitalism has resulted in “smaller firms and industries being replaced by monopolies” (Lorraine, 1989). Exploitation of the land – which can be regarded as a form of neocolonialism – continues, as multinational corporations protect themselves with neoliberal strategies. “Extractionist oligarchical hegemonies⁴ have positioned themselves politically (through economic incentives) in developing nations in order to extract mineral and raw commodities” (Hecht & Cockburn, 1989: 128), leading to a struggle in the equatorial zones of Africa, Asia and South America over who controls territory, land and forests. Development and progress become multibranching systems of “agrarian politicians, transnational corporations, governmental organizations, development agents, local settlers and timber dealers” (Nygren, 2000: 809). These diverse social actors regard primary forests as suppliers for hardwood, mineral and pharmaceutical extraction.

The Fate of the Forest, by Susanna Hecht and Alexander Cockburn, addresses the political ecology and deforestation of the Amazon and suggests that “indigenous tribes, rubber tappers, placer miners and land settlers are the victims of much broader and ravenous forces at work in the forest” (1989: 128). In the 1960s, “extractionist oligarchies, the speculators and ranchers claimed the lower areas of the Amazon” (Hecht & Cockburn, 1989: 129). Decades later, this “progress” was compounded by international corporations that bought land for mineral extraction and oil (Hecht & Cockburn, 1989). In the Amazon, I witnessed first-hand the fragmented forests encroached upon by large-scale cash crops and saw the slash and burn policies that are used to claim land. The price of progress and development in the Amazon has resulted in “a combination of burned forests, annihilated species, degraded lands, poisoned rivers and toxic soils” (Hecht & Cockburn, 1989: 130).

The loss and degradation of natural habitats I witnessed plays out like a war of attrition. In these equatorial zones there is an “abandonment of power, creating a void where legislation is incoherent and ambiguous” (Lawson & MacFoul, 2010: XIII). The only untouched primary forests left were in national parks and inaccessible landscapes such as mountains and gorges. I witnessed the total destruction of equatorial forests in Indonesia, Borneo and the Philippines and felt driven to understand the neoliberal capitalist model that enabled it, discovering that supply chains were the capital model used to deforest these countries which are now used globally. Supply chains require low wage labour and raw resources to make products that are shipped to “benefit dominant firms” (Tsing, 2015: 61).



Figure 8: Tue Greenfort, *Exceeding 2 Degrees*, 2007. An exploration of supply chains, in which a thermohygrograph is placed on a table made of Malaysian wood, fabricated in Japan and sold as a product in Dubai. The temperature of the museum was raised by 2° and the savings on air conditioning were used to buy an area of the Ecuadorean rainforest.



Figure 9: Subhankar Banerjee, *Brant and Snow Geese with Chicks*, 2006. From the series *Oil and the Geese*.



Figure 10: Pieter Hugo, *Aissah Salifu, Agbogbloshie Market, Accra, Ghana, 2010*. In this body of work, Hugo depicts a man-made hell of global technological waste raked over for valuable metals by the poorest residents of Accra.

Tsing (2015: 113-114) first learned about Japanese supply chains by studying logging in Indonesia, explaining that Japan went through a building boom in the 70s, 80s and 90s that turned their economy into one of the world's richest;. However, to construct their buildings in cement they needed plywood for construction molds (Tsing, 2015: 113). As Japan didn't have enough hardwoods, the Japanese looked to the east Asian forests of the Philippines, Malaysia and Indonesia, using supply chains to carry out their business interests and offering "loans, technical assistance and trade agreements to firms from other countries, which cut logs to Japanese specifications" (Tsing, 2015: 114). Japanese imported⁵ hardwoods eventually depleted the Philippines and Malaysian Borneo. They then set their sights on Indonesian Borneo and other islands in the archipelago. The traders knew to avoid political risk by using Chinese subcontractors and brought in Filipino and Malaysian loggers (Tsing, 2015). "The supply-chain arrangements facilitated Japanese trade standards while ignoring environmental consequences" (Tsing, 2015: 113), and the traders used shape shifting techniques, listing their companies under a grab bag of Indonesian pseudonyms while absorbing the trees into their economy (Tsing, 2015: 114). In actuality, no Japanese people entered or cut down any Indonesian forests, as it was all done for them.

The primary tropical hardwood forests of Southeast Asia have been devastated. Supply chains are now a global norm, and what happened in Asia has also happened, and is happening, in Central Africa and South America. Moreover, "the wholesale, interconnected and seemingly unstoppable ruination of forests are across the world such that even the most geographical, biological and culturally disparate forests are still linked in a chain of destruction and encroachment" (Tsing, 2015: 212). These global histories of industrial ruin contain similarities that cannot and must not be denied. Moreover, the vast plantations of monocropping that I travelled through to reach the fragmented national parks were a significant form of forest destruction and encroachment. Tsing (2015: 39) explains that "Plantations craft self-contained, interchangeable project elements, as follows: exterminate local people and plants; prepare now empty, unclaimed land; and bring in exotic and isolated labor and crops for production." Tsing notes that, "like a giant bulldozer, capitalism appears to flatten the world to its specifications" (2015: 61).

⁵ Tsing (2015: 114) explains that, "Supply-chain arrangements accommodated illegal logging as a layer of subcontracting, which harvested trees protected by environmental regulations. Illegal loggers sold their logs to the larger contractors, who passed them on to Japan." "In short, Japanese trading companies made the logging of Southeast Asia possible ... Deforestation was sponsored by Japanese trading companies put into place by Southeast Asian military force" (Tsing, 2015: 115).

Only a few have benefitted. The resulting inequality, created by "brute capitalism", is staggering and the problem is that progress, mastery and possession have stopped making sense – if they ever did. According to a recent Oxfam report (in Elliott, 2019), the world's richest eighty people own as much as the Earth's Global South population combined (about 3.5 billion people), just as around ninety corporations are responsible for running the fossil fuel economy, and a much smaller number of governments is accountable for the "geopolitical and humanitarian wars that camouflage control of the world's natural resources and energy supplies" (Demos, 2016: 17). We are "being held hostage to corporate powers that place short-term profits over long-term sustainability" (Demos, 2016: 9), and the capitalistic intent and commodification of nature has pushed the Earth into an irreparable state "unknown in human experience" (Barnosky et al., 2012: 52). I learned that in the equatorial biomes, environmental degradation is merely "an 'externality', a cost that falls outside of entrepreneurial calculation, and one that regards the destruction of a forest (or other resources) as merely the price of progress" (Hecht & Cockburn, 1989: 96). If it can be argued that the conservation of tropical forests "as a source of water, botanical knowledge, carbon, habitats of biodiversity and pharmaceuticals" (White, 2010: 34) is essential to multispecies health and existence, then it also can be argued that illegal deforestation is an "ecocide" and "environmental crime" that "deserves the attention of lawyers, policy makers and criminologists" (White, 2010: 34). The promises of industrial transformation have been betrayed by damaged livelihoods and lost landscapes.

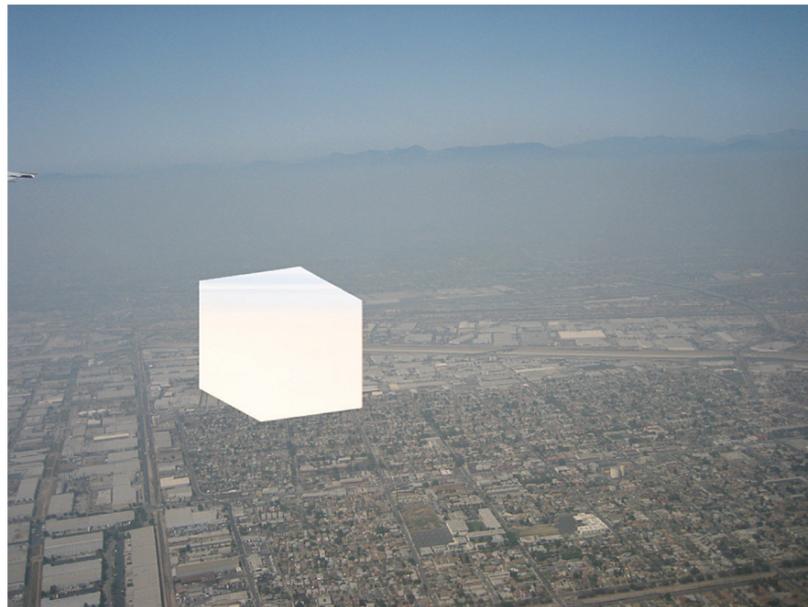


Figure 11: Amy Balkin, *Public Smog over Los Angeles*, 2004. A hypothetical clean air park in the atmosphere, one whose location, dimensions, and duration are contingent on the contracts of the emission credits purchased by the artist.



Figure 12: The Harrisons, *Survival Piece V: Portable Orchard*, 1972. Recreated in 2015 at the Walker Art Center, Minneapolis.

PHOTOGRAPHING
THE LANDSCAPE IN
THE 19TH AND EARLY
20TH CENTURY



Figure 13: David Arnold, Yellowstone National Park, 1875. Used in *National Geographic* to promote the expansion of the park.

Photography in the 1860s was considered by explorers to be a necessary part of an expedition, although photographic equipment of the time was cumbersome, and building dark rooms in harsh environments was difficult. It was extremely difficult to “fix” an image onto emulsion plates or glass in the early history of photography.

On an expedition to Victoria Falls, the photographer James Chapman joined forces with the painter Thomas Baines (Livingstone & Withers, 2005: 216), and the only photograph that he managed to capture and fix in the humid climate was *Baobab* (c.1862).

Moisture from the falls and the humid climate made it impossible to develop an image and, as his role was to document the falls themselves, meant that he failed in his primary objective. However, the explorers discovered an abundance of game, water, hardwoods and minerals, as exemplified in Baines' *Buffalo Driven to the Edge of Chasm opposite Garden Island Victoria Falls*, (c1865), in which an Eden devoid of human life is fecund with natural opportunities and invites exploitation by future colonists.



Figure 14: Thomas Baines, *Buffalo Driven to the Edge of Chasm opposite Garden Island, Victoria Falls*, c1865.



Figure 15: James Chapman, *Baobab*, c. 1862.



Figure 16: Albert Bierstadt, *Looking Down Yosemite Valley*, 1865.

In America, “framing” nature – initially in painting and later in photography, “whether pastoral or sublime, was part of the inspiration for national parks”⁶ (Gütschow, 2007: 38). Pictorialised nature became fundamental “in the history of the national park ideal and man’s attempt to discover the myth of Eden on Earth” (Neumann, 2002: 17). In the seventeenth, eighteenth and nineteenth centuries, American landscape painting was a “very organised construct divided spatially by foreground, middle ground and background” (Mitchell, 1994: 5).

⁶ However, it should be noted that the national parks of the American West were “widely inhabited and utilised by Native Americans prior to designation” (Keller & Turek, 1998: 448). In the case of Glacier National Park, the Blackfeet First Nation were removed and access to the park was restricted. The Yellowstone model of national park conservation was adopted and adapted around the world, leading to evictions of more indigenous populations. Native lands were designated as national parks, and the remaining forest reserves were gazetted and zoned for resource extraction (Keller & Turek, 1998: 448).

The same constructs of composition in painting were repeated by the realism of the camera. In the American West, the early geographical landscape photography of Charleton Watkins “depicted the grandeur of Nature, the power of God and showed that sublime Nature was so much greater than man” (Gütschow, 2006: 38). The English photographer Eadweard Muybridge also took photographs in Yosemite Valley, as did Ansel Adams later in the early twentieth century. “In their photographs, Yosemite is a land of inhuman scale but with no traces of human inhabitation” (Tescic, 2017: online). Photographs of the Yosemite Valley became the first documents about the conservation of the environment; these “empty” landscapes “were portrayed as a natural monument to the American people” (Tescic, 2017: online).



Figure 17: Charleton Watkins, *View of the Tutokanula Pass, Yosemite*, c.1878–1881. Figure 18: Eadweard Muybridge, *Clouds Rest, Valley of the Yosemite (No.40)*, 1872.

In North America, the sublime was about showing an empty landscape of “potential destiny, exploration and conquest” (Gütschow, 2006: 38). Nineteenth-century European romanticism and American (and African) sublime paintings and photography, “with awe-inspiring vastness and grandeur, contributed to the identity myth of a colonizing society returning to or discovering an empty earthly Eden” (Neumann, 2002: 15).

Yellowstone, the first national park, was created in 1872 and became the ecological rationalisation for the establishment of future parks and created a heightened critical awareness and consciousness of the natural environment (Neumann, 2002). Later in the first half of the twentieth century, Ansel Adams' photographs “became a part of the critical dialogue around the environment that contributed further, and supported, the creation of the American National Parks system” (Turnage & Stillman, 1992: 7). *Yosemite Valley (Winter)* (c. 1935) was presented by Ansel Adams to the American federal and national government as a visual document and as evidence for the argument of continuing “park” creation and expansion as biomes of protected ecology.

Adams proved that photography could (through visual documentation) raise critical collective consciousness about ecology, and he used the photographic image “to change perceptions of the American landscape in the framework of politics” (Neumann, 2002: 25).



Figure 19: Ansel Adams, *Yosemite Valley (Winter)*, c. 1935.

CONTEMPORARY ARTISTS WORKING IN THE FIELD

Ansel Adams influenced this project in that he was both a photographer and a part-time activist for the preservation of pristine biomes (Turnage, 1992). I was also influenced by contemporary German photographers who have redefined conceptual photography, especially with regards to the landscape. The work of Andreas Gursky, Thomas Ruff, Thomas Struth and Wolfgang Tillmans has been critical to my understanding of contemporary photography and photographic curation, and I explore the handling of the medium and how these artists stage the encounter with their work in terms of curatorship and method.

Gursky, Ruff and Struth are the subject of concerted art historical and art theoretical investigations, a development epitomised in Michael Fried's 2018 *Why Photography Matters as Art as Never Before*. After Jeff Wall, Ruff was a pioneer of a new way of curating or presenting the enlarged photograph, which in turn influenced how Gursky approached his work; the aspect ratio of scale leads to an immersion into the photographic image that confronts the viewer with the micro and macro.

Gursky (1998) describes his early work as "interrelated micro and macrostructures woven together that allow the viewer to recognise the hinges that hold the system together." In *Swimming Pool, Ratingen* (1987) the viewer is removed from the image and the proceedings it depicts (Gursky, 1998). The charged space between the viewer and the image has also been extensively investigated in Thomas Struth's 1998 Paradise series "taken between 1998 and 2001 in forests in China, Japan, Australia, and German Bavaria, demonstrating the appeal in recent fine art photography of the strategy of exclusion" (Fried, 2008: 300), a strategy that presents no figures and no horizon, with the viewer shut out by the entanglement of foliage.



Figure 20: Andreas Gursky, *Swimming Pool, Ratingen*, 1987. Chromogenic process print. 107.5 x 131 cm.

The viewer is confronted by large-scale prints “with impenetrable scenes of complexity, density and non-differentiation” (Sontag, 2003: 76). Fried notes that “the Paradise photographs represent a deliberate attempt to go against Struth’s own natural tendencies in the interest of bringing about a different, resolutely non-empathic relation between picture and viewer” (Fried, 2008: 300). Struth himself has said that the photographs “contain a wealth of delicately branched information, which makes it impossible, especially in large formats, to isolate single forms” (in Reust, 2000: 151). The abstraction and density of the forests makes it impossible for a viewer to read the image, although it does “provide occasions for meditation and internal dialogue” (Reust, 2000: 151). Whether intended or not, Struth’s Paradise series is an environmental, political act – as Burgin (2018: 32) writes, “the ‘image’ is inextricably caught up in the specificity of social acts, or the effects of social acts, which makes it a political act.”



Figure 21: Thomas Struth, *Paradise 6,1 998*. 200 x 300 cm.



Figure 22: Andreas Gursky, *Amazon*, 2016. A Phoenix warehouse owned by the multinational technology, book and object distributor Amazon makes an ironic reference to the Amazon forest. Gursky digitally altered the image to exaggerate and draw attention to "a world of excess and waste" (Sherwin, 2018: online). The subtext behind the large scale-print considers the forces of global capitalism and references nineteenth and twentieth-century painting in its geometric abstraction.



Figure 23: Fabrice Monteiro, *Untitled #1* from *The Prophecy*, 2013.



Figure 24: Edward Burtynsky, *Oxford Tire Pile #5*, Westley, California, 1999. This Canadian photographer, influenced by contemporary German photographers, shares similar environmental concerns.

Further to this, many African artists work with environmental concerns, such as The Prophecy project by Fabrice Monteiro which environmentally inspired and was photographed at ten polluted areas in Senegal. The costumes constructed by Monteiro and worn in the photographs "reflect the atmosphere and state in which each location was found" (Making Africa, n.d. online).

Moreover, many African artists work with recycled material, not simply because of environmental concerns, but to give purpose to waste, sometimes with political critique: El Anatsui makes tapestries from bottle caps; Ibrahim Mahama works with sacks; Maurice Mbikayi works with e-waste; and Bright Ugochukwu Eke works with second-hand plastics. These artists all investigate "repurposing scrap materials, with their attendant cultural associations" (Museum of Modern Art, n.d. online).



Figure 25: Bright Ugochukwu Eke, *Ripples and Storm I*, 2011 (detail). Plastic water bottles and wire.

While many photographers in the *National Geographic* vein are deeply concerned about the environment and are very active in photographing the destruction of endangered sites, fewer artists use photography to express their environmental concerns. I am particularly interested in artists who use photography to critically engage with the environment on a more political and social level.

The work of South African photographer Guy Tillim, which stands at the intersection of documentary photography, activism and art, has also influenced my project. Tillim's *Second Nature* (2011) and parts of his *Leopold* and *Mobutu* series are examples of work by a photographer from Africa that resonate with me, especially in his images of the environment. Tillim's images of Polynesia set up an idea of paradise and Eden but simultaneously destabilise it by depicting wrecked cars and litter.



Figure 26: El Anatsui, *Bleeding Takari II*, 2013.



Figure 27: Guy Tillim, *Opunohu, Roti, Cook's Bay*, 2010. Diptych.



Figure 28: Guy Tillim, *Haapiti, Moorea*, 2010.



Figure 29: Guy Tillim, L.: *Guard at the state mine, Mbuji-Mayi, 2004*; R: *Independent diamond miners and the holes they have dug, 2004*.

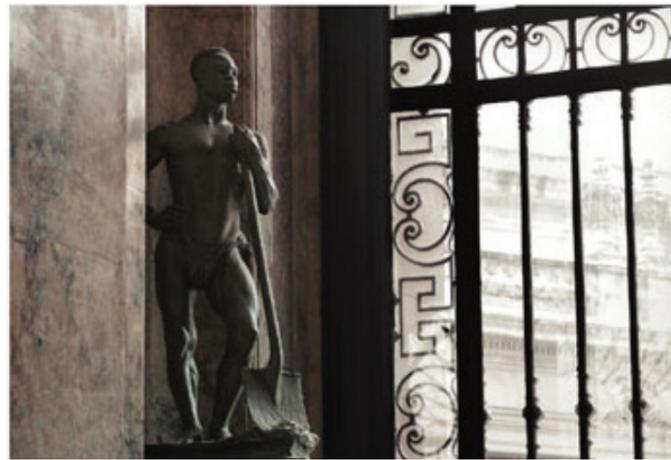


Figure 30: Guy Tillim, L: *Statue of a miner*, 2004; R: *The gold mines at Bunia*, 2004 .

In terms of photographic display and curation I have looked to the German photographer Wolfgang Tillmans, whose exhibitions are created as installations, images arranged with “a freedom that uses the entire space from floor to ceiling”⁷ (Cotton & Guadagnini, 2013: 173).

Abstract and figurative images of different sizes, presented in different ways (such as being framed or unframed and not being hung in a grid pattern or a single row), encourage the viewer to navigate Tillmans' work on their own terms, which “engages the viewers' subjectivities through multiple points of entry of relational dynamics between images” (Ault, 2008: 16). Tillmans' curatorial approach is considered a radical reinvention of how photographs can be displayed and curated, and this seeming abandonment of conventions had a profound effect on my own consideration of the gallery space.

Tillmans starts with a single image that is carefully edited to stand on its own and then builds from that, selecting images that can have conversations or create opposition to each other (Tillmans, 1998). Tillmans' exhibitions are a liberation from the traditional museum or gallery hanging and constituted a critical leap in my thinking of how photography can be liberated when assumed rules are brought into question.

⁷ Cotton and Guadagnini (2013: 172) consider Tillmans' “way of seeing and curating as a synthesis of the approaches of Nan Goldin, who was a diarist, and Gerhard Richter, who was encyclopaedic ... The approaches of these artists to curatorship reproduced the situation of chronological hyper-stimulation and hyper-information typical of today's world.”



Figure 31: Wolfgang Tillmans, Retrospective, 2017. Installation view at Tate Modern.

Contemporary photography uses and refuses older aesthetic movements and provides a new conceptual method "of how the medium can be used and displayed" (Szeman & Whiteman, 2009: 554). In terms of scale, immersion, exclusion, story and the dynamic relation between photograph and viewer through installation, an analysis of contemporary German photography has galvanised how I have approached, displayed and curated my photography. Gursky, Ruff, Struth and Tillmans created new ways of seeing, observing and displaying photographs.

The conceptual concerns (how photography can point to an idea), media, processes and, in particular, curatorship of these contemporary photographers relate to how my own work is exhibited. The handling of the medium, "how the artists have staged the encounter with their work, the references and techniques that they have brought together, creates the charged space between photograph and viewer" (Fried, 2008: 300).

In my exhibition, I use curatorial interventions to create a site of complex intertextuality, disrupting an arcadian vision with the dystopian one I experienced.



Figure 32: Wolfgang Tillmans, Retrospective, 2017. Installation view at Tate Modern.

WALKING THE LINE

In terms of photographic tools, I chose to work mainly with a large-format camera, which had its advantages and disadvantages. My photography combines romantic, realistic and documentary elements in varying degrees, and many years ago, when I first embarked on this project, I used a large-format camera in homage to Ansel Adams' quest to preserve the environment (or at least to record it) before it was destroyed and in homage to the print quality of his work.

I later reflected that there was something curious about using an anachronistic large-format camera in our contemporary times. However, this equipment is also used extensively by contemporary photographers such as Andreas Gursky, Thomas Struth and David Goldblatt.



Figure 33: Andreas Gursky, Salerno, 1990. Chromogenic process print. 188 x 226 cm.

As my project grew, I recognised the difficult power dynamic inherent in using a turn of the century format, as I, a white man, photographed in the forests of Africa, Southeast Asia and South America. While I wanted the work to act as a document (even a monument) of hardwood forests, there was nonetheless an echo of the colonial photographers (who used similar cameras) who had gone before me.⁸ To disrupt this, I evoked elements of the nineteenth century to destabilise them, an attempt to decolonise my own gaze through the camera and to show that this nineteenth century arcadia no longer exists. The forests simply do not exist on the scale that they did in the nineteenth century, having been shrunk or, in most cases, obliterated. In Asia, flying over Kalimantan, I witnessed a man-made hell of burning forests and peat emitting large amounts of carbon dioxide. On every Indonesian and Malaysian island, logging corporations worked with industrial-scale producers of mostly palm oil cash crops.

While I have argued that I used photography as a document and as part of an argument to preserve nature, it has also contributed to nature's destruction: flying to the equator increased my carbon footprint; the film I use is coated in minerals, some of which may have been extracted in the tropics; water is contaminated and wasted in the developing process; and my teak camera is made from the very hardwoods this project draws attention to. I am entangled in the very thing I critique, and I am not sure that the end even justifies the means. Nonetheless, I hope that by raising awareness my contribution will at least neutralise my project's ecological footprint; I have, as much as possible, tried to limit this footprint.

I chose to photograph predominantly in black and white, which adds another complexity, as an aspect of nostalgia is embedded in this medium. Large format black-and-white film references a time passed and, through the negation of colour, the subject becomes an abstraction of reality, allowing the viewer to concentrate on form, line and shape.

However, I sought to capture landscapes that will soon be a thing of the past, and thought that this sense of nostalgia could work for the project. I was also motivated to disrupt this "colonial" vision to avoid remaking nineteenth century images; I thought to do this through the disruption of colour, curatorial acts, "photographic errors" and the use of moving images.

The unpredictability of analogue photography provided the solutions through serendipitous mistakes, allowing for a destabilisation of how silver halides react to light, mistakes in the handling of the medium and how chemical development affects the negative. One night in the Amazon, I was unloading three days of shooting in a film bag at night when the emulsion of thirty negatives stuck together. The temperature inside the loading bag was higher than the outside, creating a humid microclimate. I stored the negatives in a film box and later, in the dark room back in South Africa, I developed the entire block at once. The only way to separate the emulsions was to rip the negatives apart one by one in the chemicals. The series of damaged and ripped negatives became an allegory for the landscapes destroyed through direct intervention by human hand and climate change.

Mistakes and chance relate to the moment in time at which the photograph of a landscape was taken. The image can never be repeated, as the growth, time and weather conditions within the landscape will change. A forest may be destroyed, disappearing, so that the photograph becomes proof of its one-time existence. Conversely, if the negative is destroyed by chance, there remains no document (in my case a partial document) of what existed. In this way, landscapes are forgotten and disappear from our consciousness and memory. On four occasions, in Africa and Asia, I returned to sites I photographed previously, only to discover that they no longer existed, and that those specific forests had effectively been erased. My negatives are limited documents of what existed before the ruin of their subject matter. Barthes (1981:4) writes that "what the Photograph reproduces to infinity has occurred only once: the Photograph mechanically repeats what could never be repeated existentially."

The large format camera is heavy, cumbersome and difficult to use, as it must be attached to a tripod. My camera has been difficult in documentary situations, as the slide blocks the viewfinder, and slow shutter speeds make movement hard to capture. The aperture must be at least F32 or more to capture an extreme focal depth, resulting in exposures that can run into minutes. The only way to shoot the "decisive moment" with a field camera is to work out the focal length, select a larger aperture, have a dark slide loaded and wait for people to enter the frame. This has led to me arriving too late for a subject or waiting for hours.

⁸ The politics of looking down on human figures as they perform hard labour made me consider the "ethics and unsettling powers of the camera and the gaze" (Desjarlais, 2019: VIII). It reminded me of photographing the man from Beit Bridge as he crossed over no man's land. By distancing myself, leaving figures unidentifiable and small in scale, and often photographed from behind, miners became symbols of exploited cheap labour around the world. As Burgin states, "the politically 'left' photograph wants people to become conscious of the forces which shape their lives; to realize that the social order is not the natural order – that it is made by hegemonic and capitalist interests" (Burgin, 2018: 20).

The photographer "shoots blind", as the background glass is covered by the film plate; the only way to know when to push the cable release is to gaze into the top of the camera.

In photographing unspoiled forests, I am aware that my images can be described as being "arcadian" or "idyllic". These "arcadian" photographs contain no horizons, giving a sense of dislocation and disorientation. However, the images are framed to draw the viewer into a dense, claustrophobic impression of abstract foliage. In this charged space, within which the viewer attempts to cohere a narrative, they are confronted by the dystopia and disruptions between the framework of arcadian landscapes. As described, the disruptions come from destroyed negatives, occasional colour photographs (prints in saturated reds and greens), moving imagery and disruptions of scale. These dystopian visual documents are a belated seeing and a direct representation of loss caused by human "progress" or "development". The dystopia is intended to unsettle arcadia; the rupture is required to balance out the rapture.

In the landscapes that I have photographed, the exclusion or inclusion of the human figure affects the scale of the photographed scenes. The landscapes without figures lack scale, because there is often no horizon, which in turn creates a sense of flatness in impenetrable vegetation. The viewer has nothing with which to compare the scale of the foliage, which in turn, causes an abstraction and sensory overload. It is my intention to draw the viewer in through exclusion and occasional inclusion of the human figure. In this way, the photographs without figures become a set into which the viewer can project their own characters. In the images with figures, the figures are small, referring to landscape constructs of the nineteenth century, and provide an opportunity for the viewer to "discover" the figures in the landscape.

The exclusion and inclusion of the human figure is intended to create a curiosity in the viewer's critical reading and understanding, but immersion of the viewer through large-scale printing becomes key for it to be effective. Large-scale printing allows the viewer to literally enter the work and imagine the landscape from their own point of view.

I use sound and projection to further draw the viewer into the subject of ecology. Projected images and sound immerse the viewer in light and audio sensations, resulting in a display that considers the illusion of three dimensions rather than the typical two-dimensional photographic display. Scale, exclusion, projection, sound and immersion all affected how I visualised the curation of this exhibition and have made me consider the exhibition space as an installation of both moving and still imagery.

NAVIGATING THE EXHIBITION

Modes of curation and display can create meaning and direct focus to warnings about ecological deforestation (Ault, 2008: 15). In this exhibition, I consider the contour of the equator as a guiding line of latitude, reflected in a thin grey line on the exhibition wall (except in the projection room). The grey of this line is based on a lighter version of the photographic grey card that is used with a spotmeter by photographers to determine a good exposure on analogue film, and is halfway between pure black and pure white. The painted line leads the viewer through different spaces and into the main gallery, and photographs are placed on, above or below the line to reflect my proximity to the equator. I hand-printed several images, with the balance digitally printed in four sizes. The photographs are mounted on aluminum dibond and are not covered by glass, so there is no barrier between the image and the viewer.

As the viewer enters the gallery, they are confronted by an infrared satellite image of urban sprawl and agricultural land division in the Bolivian Amazon. Beneath this is the title of the exhibition: LINE. The painted grey line draws the viewer into the first room, which displays handmade, fibre-based analogue prints of landscapes, two of which are of a moving river in the Amazon shot with a long exposure. This sets up the expectation that the exhibition as a whole will be quite pictorial, but subtle disruptions already allude to other possibilities – such as photographs of Roman numerals I to X that were carved into a stone boulder in the middle of an Amazonian forest, and an image of a weathered cement relief sculpture of trees and mountains.

In the passage that leads out of this space are idyllic arcadian images, complex, hyperreal photographs of vines and dense foliage that offer no sense of scale or horizon. The landscapes pictured no longer exist: on returning to the same four sites in central Africa and Indonesia in which I photographed these images, I discovered that they had all been cleared, logged or destroyed. Through their placement and curatorial grouping, the images of dense foliage give way to what cannot immediately be seen behind the curtain of trees: human encroachment, destruction and environmental degradation.



Figure 34: Stephen Gills, *Talking with Ants*, 2013. The artist buried his negatives for six months to experiment with the concept of environmental damage.

On the opposite passage wall are four images of military figures with their backs turned to the viewer. These photographs were taken on the border between Virunga National Park (Rwanda), Volcano National Park (DRC) and Nyungwe Forest National Park (Rwanda). There is a feeling of tranquility in the landscape that is contrasted by the tension of the presence of the rangers and soldiers, who are there to monitor activity on the borders that divide the two countries.



Figure 35: Border between Rwanda, Virunga National Park 0.0502° S , 29.5143° E and Democratic Republic of the Congo, Volcanoes National Park 1.2859° S , 29.3159° E, 2 019.

These national parks share a border to encourage species migration and to allow guided tourists to enter either country without a visa, as long as they remain within the park, and anti-poaching units cross at these points to monitor human encroachment. Impenetrable vegetation and nettles prohibit trekking beyond the few existing paths, so any encroachments must occur along these paths, with poachers doing their best to hide off the path when anti-poaching units come. I used a wide-angle lens to emphasise the small scale of the figures against the vastness of nature, and the high camera position allows the viewer to gaze omnisciently down. The military figures are in the middle ground and off centre and the backgrounds are a view into the distance: dense foliage that vanishes in a haze of overlapping, diminishing planes.

Entering the main gallery, a colour photograph of soil and fencing shows the reconstructed wall of a kitchen that was pushed down during the Tutsi genocide in Rwanda in order to kill the twenty-five people hiding within. The genocide played a crucial role in Rwanda's ecology, shrinking the national parks as refugees returned and claimed land. In the centre of the left-hand wall in the main gallery is a 2 x 1 m print of mangroves at low tide in Pangora, Gabon. Mangroves are essential for maintaining water quality, biodiversity and marine-animal breeding habitats. The next image is of a river swamp in Papua New Guinea at low tide, with the high-tide water line visible on the trees, alluding to the changing lines of tides and water levels as a consequence of rising oceans. The last image on this wall shows a landscape in a national park in Kalimantan that has now been cleared for a palm oil plantation.

The main wall in the gallery is painted entirely grey to signal change and rupture. Two red prints signifying danger stand on either side of a 3 x 1.5 m print of what seem to be printing test strips, which reference the photographic printing process but also a larger logic of fragmentation and striation, and even the stripping of landscape. The sediments and strata of the horizontal piece also reference archaeologies and is echoed in the vertical striations on the nearby wall. This piece also alludes to the mineral riches of the land, such as coltan, that lie beneath the forest floor.

Photographs cover the entirety of the next wall in the main gallery, with images of different sizes erratically spaced, some near the floor and others near the ceiling, borrowed from Tillman's methods of curation, but for a slightly different effect. In moving away from the more traditional presentation methods used in the earlier rooms, I want to signal disruption, dis-ease and destruction. In Rwanda and the DRC, I photographed monocropping, timber cutting and coltan mining, all of which encroach upon national park boundaries or take place on former national park land. The images on this wall foreground the post-apocalyptic dystopian landscape I found and are intended as a document of the ruin of forests by capitalistic neoliberal interests. In the centre of the wall is another 2 x 1 m digital print of a landscape in which river palms cascade to the ground.

Within this group of images is a colour photograph of a tea plantation on what was formerly Nyungwe Forest National Park; a plantation that now borders the park. I traversed several hills to secure this bird's eye view. The image was taken with a 6 x 7 cm medium-format camera using a lens with a long focal length. The long lens and the shooting angle have flattened the depth of field, which is accentuated by the similarly sized labourers, even as they are at a distance from one another. Repeated horizontal lines indicate human intervention in the planting and growing of tea. A strong diagonal path leads the viewer's eye to figures in the upper right quadrant, who seemed about to exit the frame. This image is intended to represent the problem of forest land being cleared and encroached upon by plantations and monocropping.

The black and white images of coltan mines were taken in forests on national park land in the DRC; their unique lighting was caused by a hole in my bellows, which I only detected when I returned to South Africa, but was responsible for the film being unevenly exposed. "Mistakes" are unique to analogue photography, and in the course of this MFA I learned to recognise and embrace them.

The image of women and children working in the coltan mine shows figures receding into the distance, creating a composition of positive and negative space. The contrast is flat, with an even, overcast light. The silhouetted figures are in shadow but stand out against the mid-grey tones of the soil and rocks. A small figure looks into a background that is hazy and slightly out of focus, giving a sense of depth. The overlapping planes of rock mounds and the disjointed linear perspective of the paths add to the sense of spatial disruption. In another photograph of the mines, a small figure (in the bottom right hand corner) looks into the distance, where a group of three miners is walking towards him through the dystopian landscape.



Figure 36: Kasango, Democratic Republic of the Congo 4.643601 S, 26.362312 E , 2019.

Other images on this wall relate to logging and mining and include a double negative of an animal poached in a Gabonese forest. The colour image of wallpaper in the upper right corner is representative of fading colonialism and the photograph of plywood represents the loss of Asian forests to supply chains that turn hardwood trees into plywood. The images on this wall speak back to the traditions of documentary photography, while simultaneously attempting to shift the language of documentary from its narrow confines into the realm of fine art.

The next wall presents a triptych of the damaged negatives that were photographed in the Amazon, symbolic of landscapes destroyed by direct intervention from human hand and climate change. When I scanned the ripped negatives, I placed the pieces in a 4 x 5 scanning holder, so that the ripped negative floated in a negative space that read as a black void, alluding to absence in the forests.

The last room is a curtained-off space from which the viewer can hear a sound piece emerging, a combination of sound recordings from the forests, rain, clapping hands, a tapping keyboard, various sound effects and machinery (a signifier of impending doom). The sound piece creates a sense of audio unease and draws the viewer into a projection space. The viewer is at first confronted with an edited abstract film (on a flat screen) of moving satellite imagery that shows global forests being destroyed over the last thirty years. The sound piece is synced to the film, which is entitled *Without Trees*. Warrick Sony, the sound artist, has written an essay describing the theory behind his ecological sound piece (see Appendix B). To the left of the film, a wall is entirely covered by a colour image of a forest photographed through a deep green filter. Drone footage captured in the Amazon is projected onto the wallpaper, creating the illusion that the still image is moving. A smaller print of this image is repeated on the wall directly opposite, with a similarly saturated deep green hue. On the last wall is a light-box triptych containing two 4 x 5-inch Ektachrome colour slides of landscapes taken in the Amazon with a deep red filter. In the middle of the two red colour slides is a black-and-white 11 x 14-inch negative of a palm tree. The exhibition is accompanied by a book that amplifies and explicates similar concerns to the exhibition.

CONCLUSION

After many years of walking the line of the equator, I have witnessed destruction and learned much about subjects I would never otherwise have considered, including fine art, film making, business supply chains, anthropology, political ecology, creative ecology, queer ecology, environmental activism and so much more. I have learned that art is a political act and that the ecocide of nature must be re-evaluated and decolonised. We are living in a system that promotes an excess we do not need and that is destroying our ecosystems and our future.

Creative ecology, a discipline named by anthropologist and art historian T.J. Demos (2016), is about using art as a form of social activism and political action. Demos (2016: 11) believes that "In our current political world, we are observing contemporary activist and artistic practices that address environmental conflict and justice in new ways." He suggests that

Broadcast media, experimental film, photography, video, internet-based and independent news, creative activism, NGOs, documentaries and collective social movements form a complex political aesthetic field that contest the dominant hierarchies and anti-democratic environmental arrangements. (Demos, 2016: 10–11)

Using social media, social movements are countering the ecocide⁹ of our environment by holding governmental policy makers and corporate globalisation accountable "via creative engagements and activism with visual media" (Marcus, 1996: 6). Art can be the result of the multidisciplinary collaborations of civil society that lead to political mobilisation (Demos, 2016) and, "given its long history of experimentation, imaginative invention and radical thinking, art can play a central transformative role to counter corporate and governmental positions" (Marcus, 1996: 6). Through conceptual experimentation and action, artists can help change public opinion (through exhibition, performance, theatre, publication, film, literature and social media) (Demos, 2016).

⁹ White (2010), in a critical analysis that is worldwide in its scale and perspective, considers ecological destruction as "criminal". Lindgren (2017), in an article about the disregard of alternative life systems, takes ecological criminology one step further by introducing the idea of "ecocide", which he defines as "the destruction to or loss of ecosystems of a given territory, whether by human agency or by other causes, to such an extent that the existence by the inhabitants of that territory is diminished" (Lindgren, 2017).

Creative ecology is a new way of thinking about social injustice, where visual culture can be linked to the politics of ecology in creative ways. Deforestation is inextricably linked to climate change, which is in turn its own political crisis. The artist can be an organiser combating extreme forms of ecological destruction – Demos (2016: 8) believes that “diverse actors are building environmental movements with diverse forms of solidarity; a form of political composition turned into artistic practice that connects with social movements.” A creative philosophical and perceptual shift is required to combat “the destructive traditions of colonizing nature” (Demos, 2016: 19).



Figure 37: Photographer unknown. The Dakota Access Pipeline Protests, 2016. Also known by the hashtag #NODAPL, these are grassroots movements that began in early 2016 in reaction to the approved construction of Energy Transfer Partners' Dakota Access Pipeline in the northern United States.



Figure 38: Ylenia Gostoli, *Extinction Rebellion*, 2019. Al Jazeera. Protesters against government inactivity in the face of the climate crisis marched from the Houses of Parliament down Whitehall.



Figure 39: Minerva Cuevas, *Del Monte*, 2003. Acrylic paint on black and white research scheme paper and 100 relabeled tomato cans. The artist used the Del Monte brand name to get her environmental message across. The company is a huge multinational responsible for excessive environmental damage caused by monocropping, land clearing and pesticides.



Figure 40: Satellite Infrared Colour, Urban Sprawl and Destruction of Bolivian Amazon. 14° 04' 24.00" S 66° 47' 22.19" W, 2018. Image downloaded from the internet.

On the imaginary border of the equator, tropical deforestation and the colonisation of nature are real and can be assessed through creative strategies that decolonise nature and affect entrenched non-responsive mindsets. With digital technology we can first create change in the mind, a visualisation of the future that is followed by environmental activism and climate warming reversal. Daisy Kendrick (2017: online) notes that “we are the most connected generation in history, with the capacity to arrange coordinated global protests” and that “twenty-eight percent of young people use social media as their primary news resource” (Kendrick, 2017). Greta Thunberg's speech at the UN Climate Change COP24, and her organisation of worldwide protests against political climate change, have had a radical effect on youth awareness and activism, and it is now estimated that a third of the world's population is critically aware of climate change (Lee et al., 2015).

If this awareness can be raised further through social media awareness campaigns, the collective critical consciousness may be strong enough to change the political ecological landscape.

In Thunberg's speech (representing Climate Justice Now), she states that “We have come here to let you know that change is coming whether you like it or not. The real power lies with the people” (Thunberg, 2018: online). The environmental group Extinction Rebellion believes we are in the midst of a mass extinction of our own making, and they are organising worldwide climate campaigns to persuade policy makers to avoid ecological disaster. Climate change rallies and peaceful acts of civil disobedience are organised globally to disrupt city activities and force governments to take climate justice seriously (Harris, 2019). Extinction Rebellion has three demands:

Tell the Truth

Government must tell the truth by declaring a climate and ecological emergency, working with other institutions to communicate the urgency for change.

Act Now

Government must act now to halt biodiversity loss and reduce greenhouse gas emissions to net zero by 2025.

Beyond Politics

Government must create and be led by the decisions of a Citizens' Assembly on climate and ecological justice. (Extinction Rebellion, n.d.: online)

The idea that art can play a pivotal role in ecology might seem frivolous, until one witnesses the creative protest performed by Extinction Rebellion and how the visuals they employ are critical to attracting public attention. When asked "how one artist (person) can make a difference", Demos (2017: 19) answers, "Don't be one: join/connect through solidarity." Activism is about each person contributing, creating awareness and raising critical rationality through connection and political organisation.

Visual culture can connect art with the politics of ecology through documentation, publication, social media and exhibition to generate dialogue with "modern discourses allowing for the potential emergence of novel concepts" (Demos, 2016: 25), artistic activism and collective learning, which can lead to policy change and the political will to vote for a concerted response to climate change. I want my photographs to communicate, persuade and warn of the continued ecological destruction occurring along the equator and use future exhibitions as a point of critical discussion. The visual, in the form of films, documentaries, photography, social media and the Internet has alerted the public to what is occurring to the planet's ecology. Fine art as a political act is grounded in human relations and their social contexts, which in turn can stimulate participation from viewers at a fundamental and personal level. This fundamental participation will help raise our collective critical consciousness for environmental protection and action.

We have failed as Descartes' "masters and possessors of nature" and, as Demos (2016: 16) suggests, we need a "project of imagination that rescues nature from corporate control, financialization and propriety exploitations of biogenetic capitalism." Forests are being erased and new climate realities are already having a profound effect on the planet and our place on it. The political and cultural ramifications of climate justice can be addressed through media discourse and national dialogue as we enter our sixth mass extinction, having lost contact with nature in our subconscious and in our way of living. We must speak to the foundations of our structure about a collective global crisis that requires collective action and movement, as "decolonizing nature entails transcending human-centered exceptionalism, no longer placing ourselves at the center of the universe and viewing nature as a source of endless bounty" (Demos, 2016: 19). Moreover, fossil fuel companies and plastic bottling multinationals have green-washed their image using lobbying and marketing to suggest that they are affecting change (Harris, 2019). But we are out of options, and this is a monumental existential crisis and moral and ethical turning point in the history of our planet (Harris, 2019); a rise of between 2° and 3° will render the planet uninhabitable (Harris, 2019).

By drawing attention to a space that seems unremarkable, photography can encourage us to see what the photographer saw, to shed light on an issue or space that might not otherwise be remarked upon. The photograph, as a visual document, has the ability "to signify elements of absence, erasure, nostalgia and memory" (Enwezor, 2008). In capturing light and fixing an image, the transient medium of photography freezes a moment in time and relates to or signifies the mutability of ecology, prompting Susan Sontag (1973:14) to remind us that "to take a photograph is to participate in another person's (or things) mortality, vulnerability, mutability. Precisely by slicing out this moment and freezing it, all photographs testify to time's relentless melt." In the years I spent on this project, I witnessed "time's relentless melt" and can bear witness to the precarious vulnerability of nature. My photographs serve as a warning, raising awareness of environmental destruction in the equatorial environments, caused by our so-called civilisation. I, too, am implicated in "slicing out this moment and freezing it", and it is with regret that I realise that, I too, am hastening nature's mortality. As I cross from youth to older age I am conscious of my own mortality and vulnerability and realise that the line, like life, does have an end.

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APPENDIX B:
WITHOUT TREES
– AN ESSAY BY
WARRICK SONY

Without Trees [deforestation and the ironic need for growth]: an essay by Warrick Sony on the theory behind the sound piece he created.

“Even the earth is dizzy
Even the clouds are coughing
Even the leaves are wheezing
Earthbeats, Earthbeats.”

All over the world, countries are measured, like plants, in terms of their growth. Have the branches of our economy withered or are “green shoots” visible with future hopes of wealth? Do we put down roots or do we transplant ourselves to more fertile areas?

Investopedia describes “green shoots” as:

A term used to describe signs of economic recovery or positive data during an economic downturn. The term green shoots is a reference to plant growth and recovery, and has been used during down economies to describe signs of similar growth.

The plant/nature metaphor is ubiquitous in business and economics: Is Apple better than Blackberry or Orange or is the best Cloud storage system called Rain ... and do they sell space on Amazon? Is “growth”, then, good for planet Earth and inevitably for us as a species?

Without Trees, through a series of aerial photos and film, depicts economic growth in a different light: human economic growth-activity and development are seen as an injurious scar tissue, where roads cut and buildings fester; red earth wounds; all culminating in cancerous sores over large swathes of the Earth's surface.

The beginning picture-edits are punctuated by drops of rain. These grow and develop in pace and density, eventually superseded by the tapping of a computer keyboard.

The tapping keyboard takes control: it manages rain manipulation, automated irrigation, conveyor belts and stone crushing machinery. Most aspects of economic growth are automated, computerised and ultimately controlled by the tapping of a keyboard. This, then, is the primary sound in many industrialised human lives; the tap, tap, tap of the computer keyboard. It is moving money, playing games, buying stocks, building roads, bringing development to poorer nations. This is human progress and it is rewarded by wealth. For a few, immense wealth, for some even exceeding the gross GDP of some small countries.

Success is rewarded, also, with accolades and applause. So, the next sound to morph from the keyboard is a hand-clap. Applause is the ancient cultural ritual of bringing two hands together to make a loud sound. The hand clapping, therefore, takes over from the keyboard and, though initially applause, a different clapping becomes evident. A morphing from applause to ritual clapping begins to underscore a presence of the human-ancient; lost (or killed) civilisations, the performance of ancient traditional ritual as we (humans) seek the extinct, or the un-understandable, the non-logical. We need this to fill the psychological hole left behind by the death of god and the rise of the industrial paradigm and the new religions of Freud, Marx, Darwin and Nietzsche.

The present new noise of home-brewed ceremonies and dross meanings and incantations and rhythm brings us to the Earth – beat generation of new age rituals, chants and magical thinking that inevitably cannot bring new shoots or new leaves to the already-too-late destruction. The machine is churning faster and faster and we cannot hear above the human babble or the traffic noise or the air conditioner or the washing machine.

THE WASHING MACHINE.

This is the audio carpet that holds the room together (as Jeff Bridges famously quips in the *Big Lebowski*) and spin-dries us off into oblivion. It provides not only atmosphere – when pitch-shifted down – but also the critical sound edit-points that transition the viewer from static to moving picture via the important OFF-ON switch. The washing machine also gives us the mundane energy and tempo surge as we rush headlong, money belts spinning into a speeding blur of sound and image – to the final OFF position.

THE SOUND ELEMENTS:

Drops of water/Some low frequencies and metal hits I made for 'The Mangler' (Tobe Hooper, 1995)/Washing machines/Air conditioner/Tropical rain/Night atmosphere forest/City ambience from afar/Human babble/Computer keyboard tapping/Fragments of voices from a movie I mixed for Wits University/Hand claps and finger snaps.

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Sumatra,
Taman National Park
4.636° N, 102.4069° E
Size: 100 x 80cm
Printed on: Hahnemuhle Potorag Baryta



Border between Rwanda,
Virunga National Park and Democratic
Republic of the Congo,
Volcanoes National Park
1.2859° S, 29.3159° E
Size: 100 x 80cm
Printed on: Hahnemuhle Potorag Baryta



State of Amazonas,
Manaus
3.06698° S, 60.0130° W
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



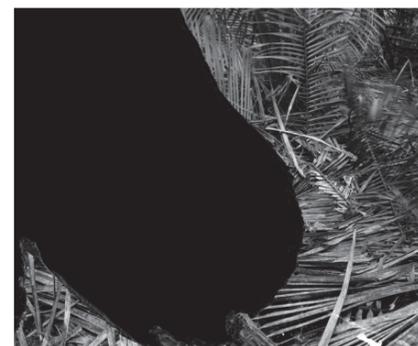
Rwanda,
Virunga
0.0502° S, 29.5143° E
Size: 100 x 80cm
Printed on: Hahnemuhle Potorag Baryta



West Papua ,
Agats
5.3230° S, 138.0800° E
Size: 200 x 150 cm
Printed on: Hahnemuhle Potorag Baryta



State of Amazonas,
Parque Nacional do Jaú
2.10780° S, 62.37119° W
Size: 58 x 46 cm
Printed on: Hahnemuhle Potorag Baryta



State of Amazonas,
Parque Nacional do Jaú
2.10780° S, 62.37119° W
Size: 58 x 46 cm
Printed on: Hahnemuhle Potorag Baryta



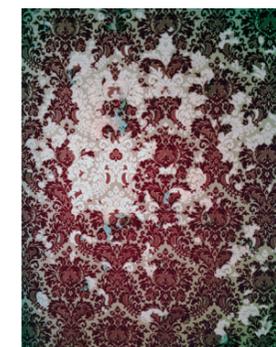
Rwanda,
Nyungwe
2.4812° S, 29.2151° E
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



Democratic Republic of the Congo,
Volcanoes National Park
1.2859° S, 29.3159° E
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



Democratic Republic of the Congo,
Volcanoes National Park
1.2859° S, 29.3159° E
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



Goma,
Democratic Republic of the Congo
1.6585° S, 29.2205° E
Size: 58 x 46 cm
Printed on: Hahnemuhle Potorag Baryta



Amazonas,
Nova Olinda do Norte
3.53185° S, 59.0540° W
Size: 58 x 46 cm
Printed on: Hahnemuhle Potorag Baryta



Rwanda,
Nyungwe
2.4812° S, 29.2151° E
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



Rwanda,
Nyungwe
2.4812° S, 29.2151° E
Size: 56 x 46 cm
Printed on: Hahnemuhle Potorag Baryta



Nyamata Genocide Memorial,
Rwanda
2.2072° S, 30.1445° E
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



Bukavu,
Democratic Republic of the Congo
2.5123° S, 28.8480° E
Size: 56 x 46 cm
Printed on: Hahnemuhle Potorag Baryta



Kasango,
Democratic Republic of the Congo
4.643601 S, 26.362312 E
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



Gishwati Forest,
Rwanda
1° 44' 29.99" S, 29° 25' 22.37" E
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



Kasango,
Democratic Republic of the Congo
4.643601 S, 26.362312 E
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



Kasango,
Democratic Republic of the Congo
4.643601 S, 26.362312 E
Size: 56 x 46 cm
Printed on: Hahnemuhle Potorag Baryta



Kalimantan South,
Sebangau National Park
2.3260° S, 113.4958° E
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



State of Amazonas,
Reserva Extrativista Rio Unini
1.687561°S, 63.810452°W
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



State of Amazonas,
Reserva Extrativista Rio Unini
1.687561°S, 63.810452°W
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



Rwanda,
Nyungwe
2.4812° S, 29.2151° E
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



West Papua ,
Agats
5.3230° S, 138.0800° E
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



Rwanda,
Virunga
0.0502° S, 29.5143° E
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



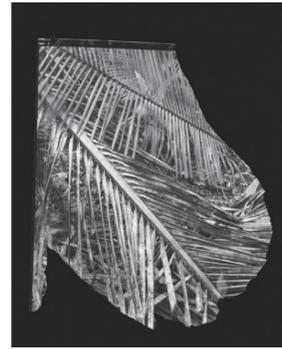
Gabon,
Mikongo
0.4412° S, 11.5248° E
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



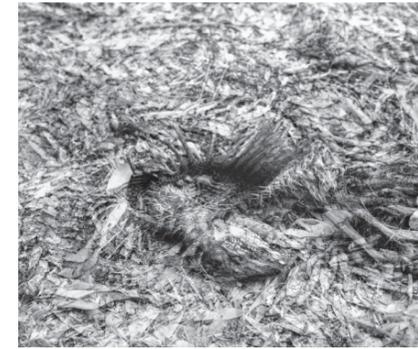
Amazonas,
Nova Olinda do Norte
3.53185° S, 59.0540° W
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



Amazonas,
Nova Olinda do Norte
3.53185° S, 59.0540° W
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



Amazonas,
Nova Olinda do Norte
3.53185° S, 59.0540° W
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



Gabon,
Ivindo National Park
0.2190° N, 12.7135° E
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



Gabon,
Pongara
0.1289° N, 9.6119° E
Size: 200 x 150 cm
Printed on: Hahnemuhle Potorag Baryta



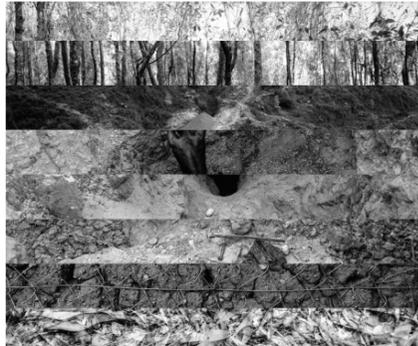
Plywood
Size: 50 x 39.62 cm
Printed on: Hahnemuhle Potorag Baryta



Amazonas,
Floresta Nacional Saracá Taquera
1.4022° S, 56.4301° W
Size: 50 x 39.52 cm
Printed on: Hahnemuhle Potorag Baryta



Striations,
composite
Size: 100 x 80 cm
Printed on: Hahnemuhle Potorag Baryta



Striations,
composite
Size: 50 x 46.4 cm
Printed on: Hahnemuhle Photorag Baryta



Analogue i
Size: 50.8 x 40.6 cm
Printed on: Hand printed on Kentmere
BW pearl finish fibre-based paper



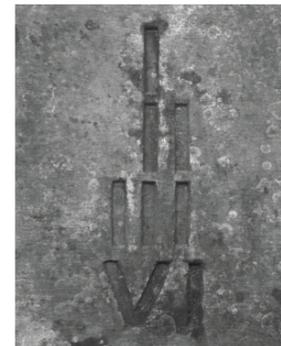
Analogue ii
Size: 50.8 x 40.6 cm
Printed on: Hand printed on Kentmere
BW pearl finish fibre-based paper



Analogue iii
Size: 50.8 x 40.6 cm
Printed on: Hand printed on Kentmere
BW Fibre-based paper



Analogue iiiv
Size: 50.8 x 40.6 cm
Printed on: Hand printed on Kentmere
BW Fibre-based paper



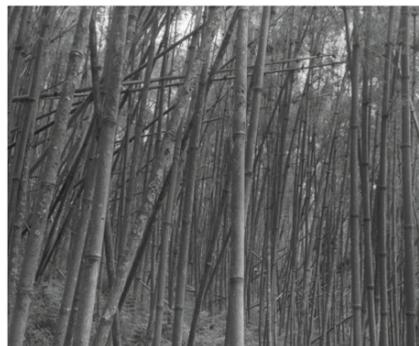
Analogue v
Size: 50.8 x 40.6 cm
Printed on: Hand printed on Kentmere
BW pearl finish fibre-based paper



Analogue vi
Size: 50.8 x 40.6 cm cm
Printed on: Hand printed on Kentmere
BW pearl finish fibre-based paper



Analogue vii
Size: 50.8 x 40.6 cm
Printed on: Hand printed on Kentmere
BW pearl finish fibre-based paper



Analogue viii
Size: 50.8 x 40.6 cm
Printed on: Hand printed on Kentmere
BW pearl finish fibre-based paper



Analogue ix
Size: 50.8 x 40.6 cm
Printed on: Hand printed on Kentmere
BW pearl finish fibre-based paper



Analogue x
Size: 50.8 x 40.6 cm cm
Printed on: Hand printed on Kentmere
BW pearl finish fibre-based paper

