

Terrestrial Chains: Using documentary cinema
technique with a gothic mode to represent
international military activity in Aotearoa New
Zealand's 'nuclear-free zone'

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Abstract

This research explores how technical and symbolic codes of the Gothic mode can integrate with documentary-cinema methods to counterimage US military contractor Rocket Lab's militarisation of Māhia Peninsula. The films produced aim to disseminate information to encourage an informed public discourse and persuade the New Zealand public to oppose Rocket Lab's military projects. Documentary strategies, such as photographing land and expert interviews, merge with domestic scale models and gliding dolly shots. Analogue film processes, including 16mm moving film, situate this discourse around current-day military imperialism in continuity with the history of nuclear testing in the Pacific. These methods frame my broad examination of national identity, as it informs public perception of US-NZ military relations, through a Gothic unease.

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the Acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Signed

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Introduction

Aotearoa New Zealand's involvement with American military forces are often rendered opaque to the New Zealand public. Since the anti-nuclear campaigns of the 1980s, endorsed by (majority) state and citizenry, a myth has advanced that this nation innately opposes US military aggression.¹ This myth, entwined with notions of an independent foreign policy, has shaped a national identity around the misconception that New Zealand is a peacekeeping nation. New Zealand's contentious involvement in the Five Eyes intelligence alliance demonstrates that the truth of NZ-US relations is far more complicated. This research asks how a visual arts practice can use methods of documentary cinema with Gothic conventions to represent current-day United States military activity in Aotearoa New Zealand. My central subject is the US military's relationship with the aerospace manufacturer and space launch provider Rocket Lab. The research's scope situates this subject within the sociopolitical terrains of military imperialism in Oceania, the New Zealand 'nuclear-free zone', and the sublime aesthetics of Big Tech.

I take a moral position against arms proliferation and operate from the understanding that the weapons targeting satellites launched by Rocket Lab for military clients constitute an expansion of the US military's arms capabilities.² Military imperialism describes using military power to form or maintain governance outside the imperialist nation's borders. Therefore, contributing to US arms development directly supports US military imperialism.³ Rocket Lab and the Ministry of Business, Innovation and Employment (MBIE) consistently underplay Rocket Lab's role in launching military satellites from Aotearoa, focusing instead on the company's climate change research projects.⁴ This misdirection challenges the general public's ability to make informed demands of the government to regulate

1 Sachdeva, Sam. "Defence Minister: 'Independence Is Not Isolationism.'" *Newsroom*, March 31, 2023. <https://www.newsroom.co.nz/page/defence-minister-independence-is-not-isolationism>.

2 Eva Corlett, "New Zealand MP Says Rocket Lab Launches Could Betray Country's Anti-Nuclear Stance," *The Guardian*, October 17, 2022, sec. World news, <https://www.theguardian.com/world/2022/oct/17/new-zealand-mp-says-rocket-lab-launches-could-betray-countrys-anti-nuclear-stance>; No spokespersons from domestic peace and disarmament groups—including Rocket Lab Monitor—have claimed Rocket Lab is launching warheads. The criticism is that Rocket Lab is launching weapons targeting systems which are as integral to 21st-century warfare as warheads.

3 Karly Burch, "The Consequences of Nuclear Imperialism and Colonialism," *Newsroom*, November 24, 2022, <https://www.newsroom.co.nz/ideasroom/page/the-consequences-of-nuclear-imperialism-and-colonialism>; Burch's description of nuclear imperialism specifies military imperialisms in which a nuclear arsenal facilitates imperial influence. Rocket Lab's military payloads hypothetically have nuclear and non-nuclear applications, but Burch's New Zealand-focused summary of military imperialism is otherwise relevant to this research.

4 *New Zealand Space Policy Review Consultation* (Wellington: Ministry of Business, Innovation & Employment, 2022). Perhaps it is facile to point out that variations on 'weapon' appear thrice in this government document, compared to fifty instances of variations on 'sustainable'.

or reject weapon launches. Accordingly, my practice-led research aims to incite unease toward Rocket Lab's military projects and disseminate information to encourage an informed public discourse.

These aims are pursued via a documentary cinema methodology that enmeshes Gothic conventions with documentary methods such as interviewing, location photography, sound design, and scale models. This documentary-Gothic hybrid is a strategy for counter-imaging the celestial sublime aesthetic that underpins Rocket Lab's media identity. In creating this counter-image, I aim to unsettle Rocket Lab's public appearance by imaging this subject with visual information otherwise underrepresented. Gothic conventions are useful due to their close associations with fear and unsettled legacies of the past. This research attempts to discover how documentary cinema techniques might represent ongoing military imperialism in Aotearoa through a Gothic narrative tradition.

This research negotiates anti-military and pro-disarmament ethics in Aotearoa and the benefits (and challenges) of documentary approaches to political issues. This research concentrates on a precise political concern: the tripartite relationship between space courier Rocket Lab, the government of Aotearoa New Zealand, and several United States military contractors. NZ's status as a nuclear-free zone emerged in the wake of US and French military tests in the Pacific—including Marshall Islands and Moruroa—which is reflected in NZ's nuclear imaginary. This nuclear imaginary concerns a set of beliefs and symbols that comprise an understanding of NZ's national identity through anti-nuclear values, and serves as a critical context for this research. I am interested in exploring how an anti-nuclear national identity that has emerged from an international conflict around nuclear testing can be maintained while the government and industry cooperate with 21st-century US military operations.

A challenge for this research is visualising technological violence that is hypothetical, classified, or distant.⁵ The threat of Rocket Lab can seem unimaginable. Therefore, the work of this research is to image said unimaginable. This research uses still and moving analogue photography techniques to frame Rocket Lab's suppression of arms proliferation discourse within the environments in which this suppression occurs. These environments include Rocket Lab's Māhia Peninsula launch complex and Mount Wellington factory, the proposed-but-cancelled launch site on Kaitorete Spit, and an AUT conference room that hosted MBIE's feedback session about space industry regulation.⁶ With location photography, scale models, and interviews, I contest the tech-positive rhetoric of Rocket Lab, their military clients, and MBIE.

5 Rebecca Solnit, "The Garden of Merging Paths," in *Storming the Gates of Paradise: Landscapes for Politics*, First paperback printing (Berkeley, Los Angeles, London: University of California Press, 2008), 51.

6 In the early stages of this project I connected with Hawke's Bay tangata whenua to discuss my interest in Māhia Peninsula as a research subject.

A public relations haze obscures the general public's knowledge of the degree to which Rocket Lab operates as a US military contractor.⁷ The following outline traces Rocket Lab's relationship with military clients in this company's economic and technological growth. Rocket Lab is an aerospace manufacturer and space launch provider.⁸ The company was founded in Aotearoa New Zealand in 2006 by rocket scientist Peter Beck and tech entrepreneur Mark Rocket. Rocket Lab manufactures in Tāmaki Makaurau Auckland and Long Beach, California. In 2015, Rocket Lab received significant funding from Lockheed Martin.⁹ In March 2021, peace and disarmament activists prominently protested Rocket Lab's launch of an experimental targeting satellite Gunsmoke-J from Māhia Peninsula on behalf of the US Army's Space and Missile Defense Command.¹⁰ In late 2022, Rocket Lab established Rocket Lab National Security LLC, a subsidiary dedicated to US military contracts.¹¹

Rocket Lab has received funding from the New Zealand Government through the Crown entity Callaghan Innovation.¹² In 2016, MBIE initiated the New Zealand Space Agency.¹³ Opponents of Rocket Lab have criticised granting such authority to a branch of government with an economic growth imperative.¹⁴ MBIE approves all payloads launched from local soil. MBIE has disclosed that this approval process allows applicants to withhold data based on needs of business or defence privacy.¹⁵ The public debate regarding Rocket Lab's military relationships involves environmental impact, Māori

7 Joey Roulette, "Rocket Lab Expands Launch Footprint with First Mission from US," RNZ, January 25, 2023, <https://www.rnz.co.nz/news/world/483080/rocket-lab-expands-launch-footprint-with-first-mission-from-us>; This recent Radio New Zealand article celebrates Rocket Lab's business success without reference to military projects.

8 "About Us," Rocket Lab, accessed June 3, 2022, <https://www.rocketlabusa.com/about/about-us>.

9 "Rocket Lab, Developer of the Electron Orbital Vehicle, Closes Series B Round," Rocket Lab USA, accessed February 8, 2023, <https://www.rocketlabusa.com/updates/rocket-lab-developer-of-the-electron-orbital-vehicle-closes-series-b-round-2/>.

10 Chris Keall, "Rocket Lab's Gunsmoke-J Launch: A Quick Guide to the Controversial US and Aussie Military Cargo," NZ Herald, March 23, 2021, <https://www.nzherald.co.nz/business/rocket-labs-gunsmoke-j-launch-a-quick-guide-to-the-controversial-us-and-aussie-military-cargo/2NJNDSBNIPKBZEWDQYCYZMUFYBU/>.

11 Sandra Erwin, "Rocket Lab Launches Subsidiary Focused on National Security Market," *SpaceNews* (blog), December 1, 2022, <https://spacenews.com/rocket-lab-launches-subsidiary-focused-on-national-security-market/>.

12 Henry Burrell, "Callaghan Gets Answers from Rocket Lab on 'toxic Culture' Claims," accessed February 8, 2023, <https://businessdesk.co.nz/article/technology/callaghan-gets-answers-from-rocket-lab-on-toxic-culture-claims>.

13 "New Zealand Space Agency | Ministry of Business, Innovation & Employment," accessed February 8, 2023, <https://www.mbie.govt.nz/science-and-technology/space/>.

14 "Space Policy Feedback: Māhia Mana Whenua Want to Protect Principles," RNZ, October 24, 2022, <https://www.rnz.co.nz/news/te-manu-korihī/477264/space-policy-feedback-mahia-mana-whenua-want-to-protect-principles>.

15 An MBIE representative confirmed this in dialogue with the author at the New Zealand Space Policy Review Meeting on October 13th, 2022.

land ownership, and the ‘independence’ of NZ foreign policy.¹⁶ Remembering this research’s aim to encourage informed public discourse about Rocket Lab’s military contracts, I intend to communicate the complexity of this debate’s entanglement with wider political concerns than US weapons proliferation.

This research takes the position that—by representing domestic military imperialism in current-day Aotearoa—documentary filmmaking can invite public engagement with anti-military politics. The first chapter of this exegesis, ‘The Questioning of Documentary Truth’, explores how documentary photography might sufficiently evidence reality. I align with Ariella Azoulay’s argument for a social understanding of photography as a set of relations of interpretation between photographer, camera, subject, and spectator. I understand documentary truth as subjective, contingent on a spectator’s ideologically-inflected interpretation of documentary evidence. Referencing theorist Erika Balsom, I discuss how documentary photography can facilitate collective action by demonstrating faith in a shared reality, which proposes social and environmental accountability between individuals. An examination of documentary interviewing convention explores how the evidentiary materials of photography extend into other elements of documentary cinema.

The Gothic is a literary mode—with accordant film, theatre, and art outgrowths—that explores haunting, fear, and unease through an ever-expanding set of aesthetic and narrative codes. My second chapter, ‘Gothic Codes to Counter-Image Rocket Lab’, questions how a Gothic mode might intersect with documentary methods to produce an anti-military counter-image. Following historian Peter B. Hales, I position Rocket Lab’s imagery regarding sublime aesthetics before exploring how Gothic aesthetics of unease and historical inheritance can invert images of a military sublime. Referencing theorists Jennifer Lawn, Misha Kavka, and Erin Mercer, this chapter explores the Gothic mode’s meaning in current-day Aotearoa, arguing that Gothic’s intercultural malleability allows its adaptation for expressing anti-military politics. The cultural recognition of a distinct ‘New Zealand Gothic’ frames Rocket Lab within my broader questioning of colonial national identity in Aotearoa.

To document military imperialism in Aotearoa, I have imaged the environments in which imperialism—usually invisibly—occurs. My third chapter, ‘Imaging the Land, the Sea, and the Sky’, questions how land images, as a key subject in my documentary research, express and complicate national moral identity. Photographic land surveying is vital to military expansion, and this chapter considers the implications of employing photographing land within my anti-military research. Referencing Erika Balsom’s writings on oceanographic films and artist James Benning, and ecologist Geoff Parks’ histories of land photography in Aotearoa, I examine how land photography might express land as places to live rather than places to control. This practice-led research has the dual aims of informing the New Zealand

16 Teanau Tuiono, “Greens Say Rocket Lab Launch Breaches National Security,” Green Party of Aotearoa New Zealand, March 10, 2021, https://www.greens.org.nz/greens_say_rocket_lab_launch_breaches_national_security.

general public about Rocket Lab's military projects and persuading the public to oppose said projects. Through this research, I explore how a documentary-Gothic hybrid might sufficiently fulfil these aims.

Chapter One

The Questioning of Documentary Truth

Documentary practices can require faith in photography's capacity to evidence truth. This claim to truth distinguishes documentary practices from other fields of lens-based capture, like advertising photography or narrative filmmaking.¹⁷ I acknowledge the vast opacity of truth as a philosophical inquiry; however, my research does not intend to hammer out the existence of truth. Instead, I am interested in questioning documentary photography's sufficiency in gathering evidence to establish truths—while acknowledging the multiplicity of truth at the same time. Accordingly, this chapter positions my research by questioning how still and moving documentary photography may 'truthfully' represent the militarisation of Māhia Peninsula.

My project's questioning of documentary truth involves negotiating the photographic image's material relationship to reality and this relationship's mediation by camera and photographer. Documentary's evidentiary value, in part, relies upon photography's indexical link to reality.¹⁸ When light passes through a camera lens, a photosensitive emulsion or digital sensor catches this light as a temporally and spatially specific trace of material reality. The conspicuous accurateness of these photographic traces substantiates faith in the objectivity of photographic images. This faith, verified by photography's indexical relationship to reality, is heightened by a photograph's 'realistic' rendering of reality.¹⁹ But there can be no objective photography because every photograph extends from an ideologically informed decision-making process. For example, framing is a creative choice that problematises objectivity claims. The things within the frame represent one reality while occluding limitless others.

Contemporary documentary practices commonly reconcile photographic subjectivity and objectivity by reflexively attending to this negotiation of material trace and ideological gaze.²⁰ The documentary field employs conventions—arrangements of symbolic and technical codes—that, through repetition and familiarity,

17 Erika Balsom, "The Reality-Based Community," *E-Flux Journal*, May 2017.

18 Allan Sekula, "Dismantling Modernism, Reinventing Documentary (Notes on the Politics of Representation)," *The Massachusetts Review* 19, no. 4 (1978): 863.

19 Daniel Morgan, "Rethinking Bazin: Ontology and Realist Aesthetics," *Critical Inquiry* 32, no. 3 (2006): 444, <https://doi.org/10.1086/505375>; Daniel Morgan paraphrases Andre Bazin's realist aesthetic: "a film is realist insofar as it comes closest to or bears fidelity to our perceptual experience of reality".

20 Balsom, "The Reality-Based Community."

suggest how an audience should interpret documentary artworks.²¹ For example, a documentary interview conducted on a city street with a handheld camera is a convention that indicates to the audience that the interview subject is socially embedded in this urban environment. Conventions of the documentary field differ by subfield. ‘Observational documentary’ has different conventions from ‘expository documentary’, as the former eschews narration while the latter commonly uses narration to convey information.²² ‘Reflexive documentary’ conventions—such as titling and reenactment—acknowledge the impossibility of impartial empiricism by accentuating the artificiality of the camera’s presence. A title that registers the date and time a photograph was captured questions this photograph’s representation of its subject by alluding to the logistical decision-making preceding capture. This title clarifies that a camera and photographer mediate this photograph’s trace of reality. This photograph can not necessarily provide a sufficient understanding of the imaged subject outside the specific moment of capture, or beyond the photographer’s gaze.

A medium-specific negotiation of documentary truth can conceive documentary as socially constructed. A documentary is constructed by social beings for social beings, with the aim to inform or persuade.²³ Therefore, subjective representations of reality can produce partial evidence to assist the uncovering of social truths, because their audience understands these representations are ideologically inflected and must be interpreted accordingly.

Photography theorist and practitioner Allan Sekula argues for this social understanding of documentary by conceptualising photography as analogous to speech.²⁴ Sekula explains that both communication modes mix symbolic and material expressions. In speech, this mixture entails the symbolic exchange of language and the material presence of tone, voice, and rhythm. In photography, the subjective gaze of the camera operator integrates with the material trace of the indexical photograph. For both modes, these integrations become meaning through interpretation. Sekula’s framing suggests that documentary retains integrity because spectators can interpret documentary images through their subjective social conditions—and ideological constraints—to discover culturally specific truths.

Paralleling Sekula’s social construction of documentary, photography theorist Ariella Azoulay describes photography as a set of relations—a civil contract—between camera, photographer, photographed, and spectator.²⁵ Azoulay’s theory was developed with reference to

21 Bill Nichols, “How can we define documentary film?,” in *Introduction to Documentary, Third Edition*, 3rd ed. (Indiana University Press, 2017), 1, <https://doi.org/10.2307/j.ctt2005t6j.5>.

22 Ibid., 11.

23 Marie Muracciole and Benjamin J. Young, “Editors’ Introduction: Allan Sekula and the Traffic in Photographs,” *Grey Room*, no. 55 (2014): 7.

24 Sekula, 859.

25 Ariella Azoulay, “Introduction,” in *The Civil Contract of Photography* (Zone Books, 2008), 20.

marginalised peoples, crisis moments, and occupied Palestinian territory. Although my research does not share these precise subjects, Azoulay's notion of a civil contract informs my understanding of photographic truth as an interpretative action between camera, photographer, and spectator. In questioning documentary photography's sufficiency in gathering evidence to establish truths, this understanding suggests the malleability of such truths where I or my audience find them. What sufficiently reveals a truth for me, or one spectator, may be insufficient for another spectator. And what truths a spectator interprets from my photographs may diverge from the interpretations of myself and others. Azoulay argues that photography establishes a new citizenship in which each party can equally interpret and reinterpret photographic images.²⁶ Furthermore, Azoulay contends photographic spectators become accountable to what and who the camera permits them to see.

As stated, documentary practices can require faith in photography's capacity to evidence truth. Documentary makers and spectators consciously and unconsciously demonstrate this faith when observing documentary images. In 'The Reality-Based Community' (2017), film theorist Erika Balsom advocates for trusting photographic images as trace evidence of a shared reality.²⁷ Parallel to Azoulay, Balsom argues that such a shared reality is necessary for collective political opposition to issues such as climate change—Balsom's example—or military imperialism. Making a case against military expansion is impossible without believing that humans have a social responsibility to one another, so persuading my audience to oppose Rocket Lab's military projects in Aotearoa depends upon faith in a shared reality. This belief extends from the understanding that human lives are ultimately interrelated, albeit in often subtle ways, and that documentary's tracing of reality is capable of evidencing this belief.

My questioning of documentary truth hinges on how and to what extent documentary can produce trace evidence that supports the interpretation of particular truths. The truths I intend to evidence are material and moral. The material truths pertain to Rocket Lab's conditions of existence. The moral truths extend from persuading my audience to consider Rocket Lab's moral right to launch US weapons technologies in Aotearoa. The two elements of truth are entwined as Rocket Lab's conditions of existence—the industrial cul-de-sac (Fig. 1), the conference room, the paddock (Fig. 2)—implicate this company in ongoing domestic moral disputes of foreign policy and land dispossession.

²⁶ Azoulay, 22.

²⁷ Balsom, "The Reality-Based Community"; Balsom carefully frames her argument against widespread suspicion of photography's relationship to the real.



Figure 1. *Rocket Lab Ltd, industrial cul-de-sac, Mount Wellington, photographic print, 500mm x 500mm, 2023.*



Figure 2. *Rocket Lab Launch Complex 1, Ahuriri Point, Māhia Peninsula, digitised 35mm photograph, 2022.*

My research aims to inform a broad New Zealand citizenry about Rocket Lab's US military projects and invite them to oppose this military imperialism. I aim to inform this public by grounding symbolic language, such as Māhia Peninsula and Gunsmoke-J, in recognisable local environments.²⁸ Providing a material referent for such language enriches possible understandings of this domestic political concern. Without material grounding, weapons technologies launched from Aotearoa can appear to solely impact distant, unimaginable people and places. With regard to persuading opposition of Rocket Lab's military projects, visualising arms proliferation in Aotearoa can authenticate my claim that Rocket Lab's military projects have moral implications for every New Zealander. This claim follows Azoulay's suggestion that the civil contract of photography makes a spectator accountable to the photographed subject they watch. A photograph of a pasture asks its spectator to consider the past, present and future of this pasture.²⁹ This photograph implicates the spectator in imagining how their actions can and do affect how this land is used.

Regarding Sekula and Azoulay's notions of documentary's social construction, I reflect upon the ideological frames that shape how I interpret my photographs. To represent current-day military activities in Aotearoa, I have attempted to witness, where possible, the processes that shape these activities. My understanding of Rocket Lab's military projects and criticism has consequently developed through engagement with Rocket Lab protest groups, which has involved attending meetings held by activists and the government and submitting feedback on the proposed New Zealand Space Policy. A challenge within this research has been this subject's boundless evolution and the ever-changing network of affiliated concerns—colonialism, imperialism, and nuclearism. The formation of Rocket Lab National Security, a weapons-focused subsidiary, and Rocket Lab's launch of a satellite for General Atomics required me to adjust my understanding of this subject. Furthermore, the Russo-Ukrainian War and Australia's negotiations to get nuclear-powered submarines in a pact with the UK and the US will influence an audience's response to this research's explicit pro-disarmament values. Any truths that might be interpreted from my images are understood through my audience's knowledge of, and views on, these many realities. My research differs from that of Rocket Lab protest groups because its primary audience is an unaffiliated public rather than directly addressing the government or Rocket Lab. Also, my address uses documentation rather than imperative commands.

My photographic imagery predominantly documents nondescript environments significant to the burgeoning New Zealand space industry. I anticipate misgivings toward my claim that these unremarkable environments are 'militarised'. For example, no photograph, film,

28 Gunsmoke-J is an experimental satellite launched by Rocket Lab in 2021 to help the US military focus targeting during live combat

29 Sarah Sentilles, "How We Should Respond to Photographs of Suffering," *The New Yorker*, August 3, 2017, <https://www.newyorker.com/books/second-read/how-we-should-respond-to-photographs-of-suffering>; Sentilles' response to Azoulay's *The Civil Contract of Photography* hones in on the concrete-ness of Azoulay's proposal of spectatorial responsibility.

or sequence of photographs or films I make can completely describe the many truths of weapons targeting satellites launched from Māhia Peninsula, or associated inaccessible, classified, or invisible contexts. Even if I could overcome these problems, photographic records invariably involve authorial judgements.³⁰

The photographic form's visual nearness to reality emphasises the shortcomings of the images it produces.³¹ As I question documentary photography's sufficiency in gathering trace evidence to establish truths, and the sense of a shared reality, I consider how insufficiency might be productive. My images frame a limited trace of reality through an ideological gaze, enabling them to evidence subjective truths. Balsom argues audiences should be trusted to recognise that documentary images are incomplete and capable of interpreting them accordingly.³² Alternately, art historian Georges Didi-Huberman writes that the public demands too much or too little of documentary photographs.³³ He highlights how an image must adequately summarise the subject, or the viewer perceives it as an automated document rather than an authored expression. Didi-Huberman's criticism of such interpretations asks for an ethics of the image that appreciates images for their difficult marriage of imprint and poetics—akin to Sekula's description of material and symbol expressions.³⁴ I agree with Balsom's position that many audiences practice this ethic already. My faith in photographic evidence extends to faith in my audience's interpretive attention.

My positioning of a documentary methodology to frame this research has concentrated on how photographic processes can produce trace evidence of a shared reality. These discussions pertain to still and moving photography; however, documentary cinema has distinguishing features that differentiate how this process might sufficiently evidence reality. For example, documentary cinema involves duration, slow and fast motions, montage, and sound design.³⁵ Audio interviews are a documentary cinema convention that, when threaded with images, can represent the complexity of military imperialism in Aotearoa by demonstrating its numerous realities as a recall of facts laced with opinion. Interviews assist my aim to persuade by engaging the viewer's empathy toward the interviewees as concerned

30 Erika Balsom and Hila Peleg, "Introduction: The Documentary Attitude," in *Documentary across Disciplines* (Cambridge, MA: The MIT Press, 2016), 14.

31 *Ibid.*, 13.

32 Balsom, "The Reality-Based Community"; "Do we need to be told by a film—sometimes relentlessly—that the image is constructed lest we fall into the mystified abyss of mistaking a representation for reality? Or can we be trusted to make these judgments for ourselves?"

33 Georges Didi-Huberman, *Images in Spite of All: Four Photographs from Auschwitz*, Paperback ed (Chicago: University of Chicago Press, 2012), 39; Didi-Huberman makes this claim in response to four photographs of the mass killing at the Nazi concentration camp gas chambers. So much is asked of these photographs because they are the only existing photographs of this process.

34 Also akin to Sekula, Didi-Huberman describes photographs as interpreted within networks of images, rather than segregated and singular.

35 Moving image documentary also defines itself against narrative cinema for which documentary photography does not have a direct equivalent.

individuals. In my research, I have conducted audio interviews with individuals who have consistently opposed Rocket Lab launching US military payloads in public forums.³⁶ Portions of these interviews are positioned as an untethered soundtrack to my moving image works. The first interviewee is Green Party MP Teanau Tuiono, who speaks on security and intelligence issues on behalf of the Green Party. The second interviewee is journalist Ollie Neas, who has reported critically on Rocket Lab's military relationships for *North & South* and *The Spinoff*.³⁷

A recording of an interview and a transcription of that interview suggest different interpretations because an audience experiences the latter without the material presence of speech. Historian Tessa Morris-Suzuki argues that audio recorded testimonies can privilege experiences excluded from government or military records.³⁸ The oral testimony of an interview possesses a melody and hesitancy erased from such records. An interview subject's voice expresses their personhood and subjectivity.

I elected to record the interviews via Zoom rather than arrange to record with higher resolution microphones. Referring to Sekula's characterisation of speech, audio interviews involve symbolic and material expressions.³⁹ The material expressions of recording equipment are an additional layer atop speech's materiality. Curator Mercedes Vicente uses the term 'thick' to describe how cinema might embody reality through the dense layering of sensory information, encompassing materialities such as light, film stock, and speed.⁴⁰ Vicente advocates for attentiveness to this thickness instead of understanding cinema solely through the 'thinness' of symbolic content. The layered thickness of an interview recording involves low and high frequencies, distortions, and compressions inaudible to the subjects of the recording's source conversation. Consciously or subconsciously, audiences listening to a recording interpret the interview's symbolic exchange through the mediating presence of the recording equipment. In my research, the compressed, damaged audio from Zoom communicates the social context of my interview process.⁴¹ The compressed tone of these interviews implies formal professionalism, whereas a warmer, richer recording might simulate a community gathering. The former allows me to express the speakers' professional engagement with this subject along with the sincerity of concern expressed through their voices and remarks.

36 I gained approval to conduct these interviews from the AUT Ethics Committee (AUTEK).

37 I intended to conduct in-person video interviews in each interviewee's workplace, but Cyclone Gabrielle interrupted these plans. I did not know the viability of interviewing subjects in the severely impacted Hawkes Bay region within the research timeframe, so I conducted all interviews via Zoom.

38 Tessa Morris-Suzuki, *The Past within Us: Media, Memory, History* (London ; New York: Verso, 2005), 139.

39 Sekula, 859.

40 Mercedes Vicente, "Thick Cinema," in *The Thickness of Cinema* (Wellington: Circuit Artist Moving Image Aotearoa New Zealand, 2017), 3.

41 Steyerl, "In Defense of the Poor Image," *e-flux Journal* 10 (November 2009); Steyerl describes degraded audio-visual recordings as "about reality" because they demonstrate the fracturing of information by globalised digital dispersal.

The exhibition of my research also includes a take away information supplement containing transcripts of these interviews. According to philosopher Robert Bernasconi, philosopher Jacques Derrida uses the term supplement to refer to that which adds to and completes the supplemented.⁴² In my research, the take away information supplement completes the audience's experience of my work. With an understanding of any documentary truth as socially constructed, the presence of Tuiono and Neas' voices alongside mine encourages my audience to form their own interpretation of the visual evidence I am exhibiting. I further acknowledge documentary truths' subjectivity by including the take away transcript. A transcript and an audio recording are different experiences because, amongst reasons, the audience member controls the pace they receive a text. Allowing the audience to partake exclusively in the symbolic exchange within these interviews, beyond the gallery space, recognises that documentary truths are negotiated between interpreters.

In this chapter, I have explored the relations of trace and subjectivity that make documentary truths possible. Documentary photography's sufficiency to produce trace evidence of a shared reality reflects social relations between the photographer, spectator, camera, and subject. In 'truthfully' representing military imperialism in Aotearoa through a documentary methodology, I am negotiating the interpretation of my documentary outcomes with my audience. As demonstrated in my discussion of interviewing, there are methods to cultivate an audience's understanding of how I interpret these outcomes. The next chapter builds upon the persuasive possibility of my documentary practice by questioning how a Gothic mode might infuse these interpretations with a mood of unease.

42 Robert Bernasconi, "Supplement," in *Jacques Derrida: Key Concepts*, ed. Claire Colebrook, Key Concepts (London: Routledge, 2015), 19.

Chapter Two

Gothic Codes to Counter-Image Rocket Lab

Within my broad documentary cinema practice, I employ technical and symbolic codes from the Gothic mode to counter-image the sublime celestial aesthetic propagated by Rocket Lab and the Ministry of Business, Innovation and Employment (MBIE). An examination of Rocket Lab and MBIE's public relations—their websites, publications, and live streams—demonstrates a coherent fantasy of the space industry as crisp computer graphics, sleek satellite photography, and lofty star-scapes (Fig. 3). This science fiction imagery transmits the message that Rocket Lab's activities comprise an inevitable pathway to a peaceful technological utopia while glossing over the terrestrial politics of Rocket Lab's military collaborations.⁴³ My research aims to incite public unease toward Rocket Lab's launching of US weapons technologies from Māhia Peninsula. This chapter argues for the Gothic's dread-infused inversion of utopia as an appropriate mode to counter-image this fantasy.

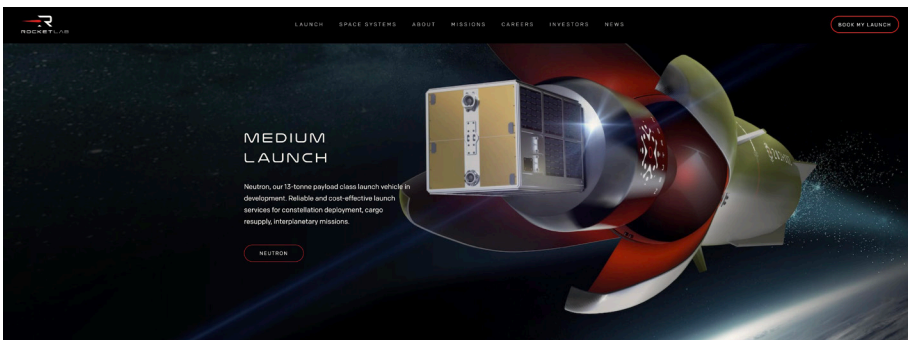


Figure 3. Rocket Lab website on March 12, 2023.

New Zealand Gothic scholars Jennifer Lawn and Misha Kavka suggest the Gothic is an eminently visual mode of doing and seeing.⁴⁴ This mode's pronounced visual identity enables its integration into documentary practice without being obscured, or vice versa. Many documentary fields contain recognisable aesthetic codes, such as handheld camera, but these codes are second to the documentary form's defining claim to reality. However, Gothic can be reduced

43 Allan Smith, "The Paradise Conspiracy," in *Bright Paradise: Exotic History and Sublime Artifice; the 1st Auckland Triennial*, March-April 2001, ed. Auckland Art Gallery - Toi o Tāmaki (Auckland Triennial, Auckland: Auckland Art Gallery Toi o Tamaki, 2001), 13.

44 Misha Kavka, "The Gothic on Screen," in *The Cambridge Companion to Gothic Fiction*, ed. Jerrold E. Hogle, Cambridge Companions to Literature (Cambridge: Cambridge University Press, 2002), 209; Jennifer Lawn, "Introduction: Warping the Familiar," in *Gothic NZ: The Darker Side of Kiwi Culture* (Dunedin, N.Z.: Otago University Press, 2006), 15.

to its aesthetic codes and remain distinct. In my Gothic-infused documentary films and photographs, earthly shadows counter the celestial, as celestial bodies do not cast shadows.⁴⁵ Interpreting Rocket Lab's Mt Wellington manufacturing plant through the symbol of a Gothic castle atop a hill expresses my unease toward the building's internal activities (Fig. 4).



Figure 4. Still from *The Strength of the Vampire*, digitised 16 mm film, 4 minutes 51 seconds (looped), 2023; In this work, I appropriate three shots from the popular film *Dracula* (1931), including this image of Dracula's castle looming in the mountains.

Gothic can be defined as an 18th-century literary genre that is constantly evolving via novels, cinema, and visual art. This Gothic is a palimpsest of changing interpretations that have generated critical sub-groups, including 'nuclear Gothic' and 'postcolonial Gothic'.⁴⁶ I use the more general 'Gothic' instead of 'New Zealand Gothic' because the two categories overlap significantly, making it difficult to clearly differentiate the two.⁴⁷

New Zealand literary theorist Erin Mercer suggests the Gothic's historical fixation offers opportunities to pry open histories closed by the sweep of rational Modernity.⁴⁸ The codes of the Gothic, as a mode colliding past and present, are a familiar framework that informs the viewer that my work is concerned with Rocket Lab's

45 Kavka, "The Gothic on Screen," 214.

46 Misha Kavka, "Ghosts of Colonies Past," ed. Alison Rudd, *Journal of New Zealand Literature* (JNZL), no. 29 (2011): 148.

47 Lawn, 11.

48 Erin Mercer, "The Flaw Is Only the Inability to Accept": Roads, Rationality and the Horror of Modernity in Stephen King's *Pet Sematary*," *The Journal of Popular Culture* 54, no. 1 (February 1, 2021): 135.

military contracts in the context of past military imperialisms. A meaningful response to Rocket Lab's public relations encompasses recognising settler-colonial amnesia towards postcolonial land displacement, New Zealand's involvement in The Five Eyes intelligence network, and the nation's lack of tangible foreign policy.

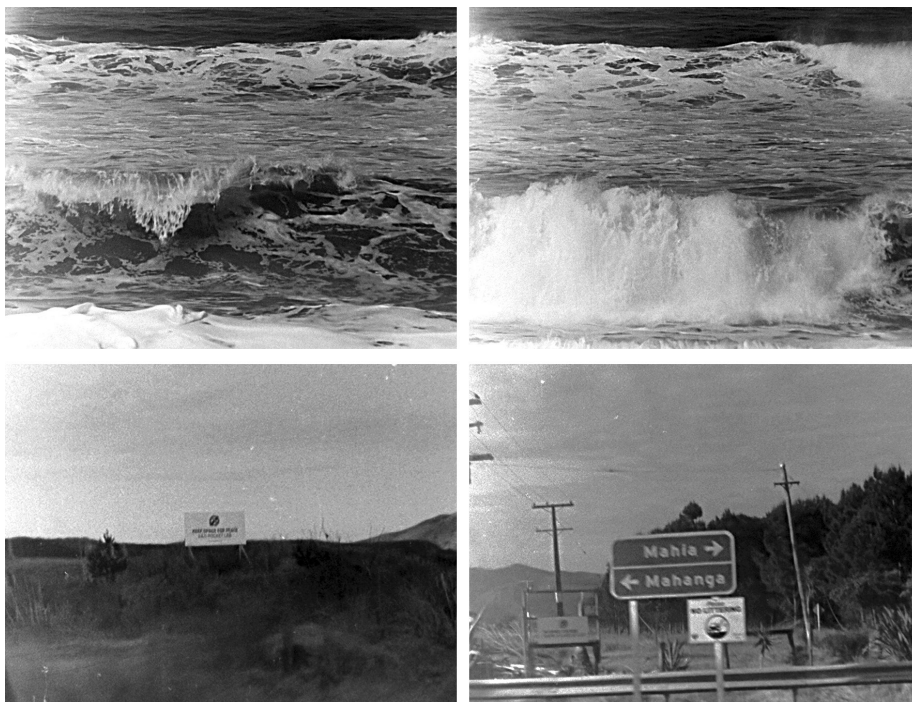


Figure 5. Stills from *The Strength of the Vampire*.



Figure 6. Tacita Dean, *Teignmouth Electron, Cayman Brac (general)*, colour photograph, 680mm x 890mm, 1999. Courtesy the artist; Frith Street Gallery, London and Marian Goodman Gallery New York/Paris/Los Angeles.

The Gothic's focus on unpicking suppressed histories informs my use of analogue film processes throughout this research. Specifically, I have used 16mm cinefilm and 35mm and 120 photographic films. Analogue film provides my research with an automatic context of the past. This historical gaze is suitable for representing military imperialism in Aotearoa as I seek to interlace contemporary concerns

with the memory of the nuclear-free zone.⁴⁹ Filmmaker Tacita Dean employs the historical context proposed by an analogue film to probe the meaning of historical Modernism in the current day.⁵⁰ Dean's film *Teignmouth Electron* (2000) explores the wreck of the titular 1960s sailing vessel (Fig. 6). Dean's choice to use 16mm film for a 21st-century film project challenges ideals of innovation and progress embodied by the sunken Teignmouth Electron by valorising a medium widely considered obsolescent. Because 16mm film can evoke military weapons test and training films, in my moving image works, the analogue film can suggest to the viewer that I am situating this recent activity in a continuum with 20th-century military imperialism.⁵¹

Gothic theorists have contested the Gothic's relevance to Aotearoa because this mode potentially marginalises Māori knowledge.⁵² Mātauranga Māori does not see spirits as 'other' or contain cartesian dualisms, both arguably essential to Western Gothic. This criticism of Gothic's suitability for exploring national politics is relevant to my research because some Māhia Peninsula mana whenua have argued that Rocket Lab violates the Te Tiriti o Waitangi principle of partnership by withholding key information about military payloads, impeding the possibility of mana whenua engaging with the government and Rocket Lab on equal terms.⁵³

Artists Bridget Reweti and Terri Te Tau's moving image artwork *Ōtakaro* (2016) explores links between science fiction—another malleable Western mode—and Māori cosmology (Fig. 7).⁵⁴ Writing on *Ōtakaro*, critic Jasmine Gallagher identifies Te Tau and Reweti's critique of capitalist rationality in land development as adapting science fiction's ability to foster different forms of belief. My project likewise seeks to adapt the Gothic to criticise sincerely the militarisation of Māhia Peninsula.

49 My black-and-white analogue film resembles that used by filmmaker Alister Barry in the documentary *Mururoa 1973*, for which he accompanied the crew of the yacht The Fri on their journey to protest French nuclear testing at Mururoa Atoll.

50 Tamara Trodd, "Lack of Fit: Tacita Dean, Modernism and the Sculptural Film," *Art History* 31, no. 3 (June 2008): 371.

51 Kit Hughes, "Reconsidering the Network Era: 16mm Film on Television," *JCMS: Journal of Cinema and Media Studies* 62, no. 2 (January 2023): 181. Hughes describes military adaptation to television broadcasting as building on the US army's 'sprawling networks of 16mm use'.

52 Jasmine Gallagher, "Christchurch, and the Heart of the Antipodean Gothic," *The Pantograph Punch*, July 2015, <https://www.pantograph-punch.com/posts/christchurch-antipodean-gothic>; Misha Kavka, "Haunting and the (Im)Possibility of Māori Gothic," in *The Gothic and the Everyday*, ed. Lorna Piatti-Farnell and Maria Beville (London: Palgrave Macmillan UK, 2014), 225.

53 A member of Ngāti Rongomaiwahine iwi expressed this belief in an online peace forum attended by the author on October 30, 2022.

54 Jasmine Gallagher, "The New Sincerity in Aotearoa's Landscape Mythology," *Circuit Artist Moving Image Aotearoa New Zealand*, September 2016, <https://www.circuit.org.nz/writing-and-podcast/the-new-sincerity-in-aotearoas-landscape-mythology>.

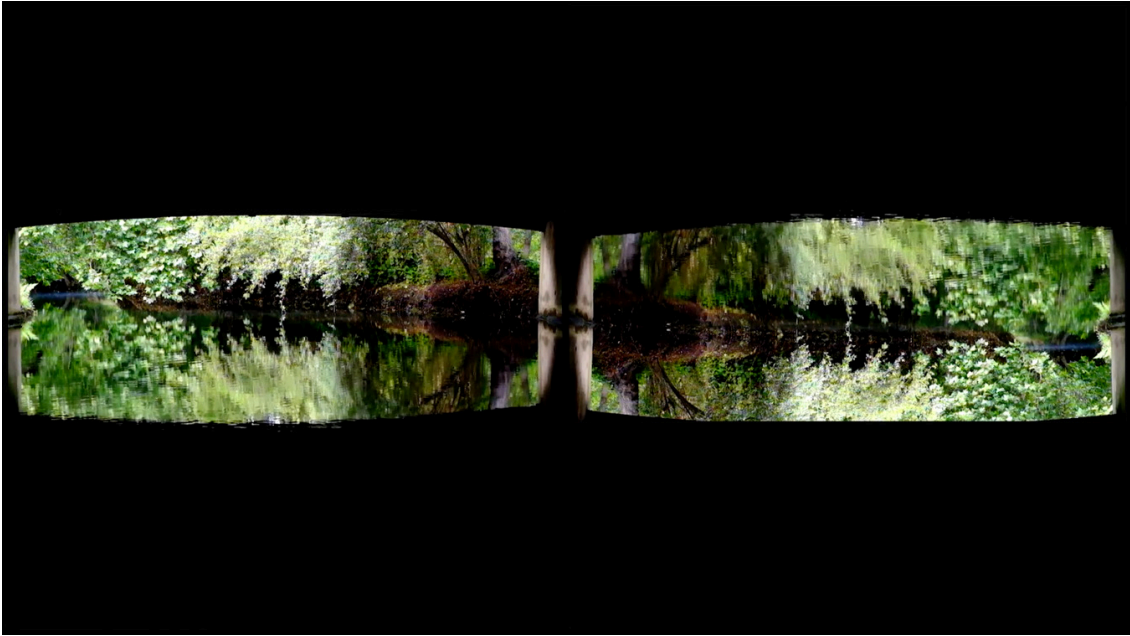


Figure 7. Bridget Reweti & Terri Te Tau, still from *Ōtākaro*, single channel HD moving image with sound, 40 min, 2016.



Figure 8. The first image referenced by Peter B. Hales, from the August 20, 1945, issue of *Life* magazine.



Figure 9. The second image referenced by Peter B. Hales, from the May 30, 1955, issue of *Life* magazine.

As stated, Rocket Lab and MBIE's media identity can be described as celestially sublime. This identity is linked to Rocket Lab's imagery as extending from the US nuclear weapons programme. Art historian Peter B. Hales begins his essay "The Atomic Sublime" (1991) by comparing an amateur photograph of the atomic bombing of Nagasaki with a professional photograph of a mid-1950s atomic test circulated by the Atomic Energy Commission.⁵⁵ In blurred black-and-white, the former's crooked frame crops into the full plume of smoke (Fig. 8). The latter image, in bold colour, is a level view from a distance, stylishly harmonising the fore and background (Fig. 9). By comparing these images, Hales illustrates the US military's rapid codification of atomic imagery in the decade between these two photographs. Furthermore, Hales demonstrates how this codification process adapted 18th-century sublime aesthetics to make this weapon of unprecedented devastation permissible to the American public.

The 18th-century British philosopher Edmund Burke used 'sublime' to describe the natural world's incongruous blend of terror and awe.⁵⁶ The consequent summoning of sublime aesthetics for the atomic bomb associates nuclear weapons with the powers of the natural world. In this sense, a nuclear weapon is to be feared and admired like a mighty waterfall rather than regulated as a human-made weapon.

To characterise the 'celestial' is to recognise this mode's essential role in military iconography. The military gaze frames its subject from up high and far away.⁵⁷ Possibly by a drone or a jet plane. Perhaps even a satellite. The military image is one of detachment and anonymity. Against this gaze, my photographs are visibly taken from low down, on the ground (Fig. 10). My camera points up, not down. In the military image, the earth is a sequence of planes to be occupied or obliterated. In my counter-images, the photograph's spectator can see the texture of the soil, so to speak.

There's an unmistakable resemblance between Rocket Lab's crisp, serene launch photography and US government images of nuclear testing. Unfavourable reporting on Rocket Lab, such as Ollie Neas' *North & South* article "Mahia, We Have A Problem" (2021), is nonetheless illustrated by photography that renders these rockets through awe instead of violence (Fig. 11).⁵⁸ No connection is made—visually—between this cloud of evaporated rocket fuel and the town of Māhia thirty-odd kilometres away. Let alone the foreign nations where the US military will use their weapons targeting technologies.

55 Peter B. Hales, "The Atomic Sublime," *American Studies* 32, no. 1 (1991): 5.

56 *Ibid.*, 12.

57 Elizabeth DeLoughrey, "Radiation Ecologies and the Wars of Light," *MFS Modern Fiction Studies* 55, no. 3 (2009): 475; Paul Virilio, "Preface to the English Edition: The Sight Machine," in *War and Cinema: The Logistics of Perception*, Radical Thinkers (London New York: Verso Books, 1984), 2.

58 Ollie Neas, "Mahia, We Have A Problem," *North & South Magazine*, March 14, 2021, <https://northandsouth.co.nz/2021/03/14/rocket-lab-military/>.



Figure 10. *Puddle, Kaitorete Spit*, photographic print, 500mm x 500mm, 2023

Mahia, We Have A Problem

As superstar Kiwi startup Rocket Lab takes on work for the US military, a tiny beach community faces some major moral dilemmas.

By Ollie Neas

Figure 11. A screenshot of the web edition of Ollie Neas' *North & South* article.

Hales proposes that the consolidation of nuclear imagery influenced how the public perceived any image of a nuclear detonation.⁵⁹ A similar training of perception emerges throughout my research. My photo-collage *Documentary Photographs from the Unofficial Rocket Lab Facebook Group* appropriates twelve photographs posted to Facebook by civilian Rocket Lab enthusiasts (Fig. 12). These twelve pictures of orbital rockets shooting into the cosmos emulate the company's official imagery. Thin trails of rocket exhaust overlay the glorious sunrise. In the context of the nuclear bomb, the transfiguration of warfare into 'nature' through the sublime caused the American public to treat the bomb like a tourist attraction.⁶⁰ These fan photos consume Rocket Lab as an aesthetic product—the heroic science rhetoric of America's military industries coats Rocket Lab's public relations. In this social media dialogue, the militarisation of Māhia Peninsula prompts an aura of wonder.



Figure 12. *Documentary Photographs from the Unofficial Rocket Lab Facebook Group*, photo-collage, 297mm x 420mm, 2022.

Hales introduces a lineage of Gothic recourse against the atomic sublime when discussing the 1952 publication of Japanese photography documenting the aftermath of the 1945 bombings.⁶¹ He argues the Gothic ultimately failed to counter-image this sublime because the latter so quickly entrenched itself in the American imaginary. The blend of terror and awe at the core of this sublime acts as a salve to any authentic nuclear terror. Following Hales' conclusions, I elected to discard works I had made using appropriated

⁵⁹ Hales, 10.

⁶⁰ Hales, 24.

⁶¹ Hales, 25.

images from Rocket Lab and its fanbase. My photo collage illustrates this sublime imagery's contrivance but insufficiently provokes a counter-reading. Ultimately, irony cannot dismantle the wonder militaries have nurtured the civilian public to anticipate.

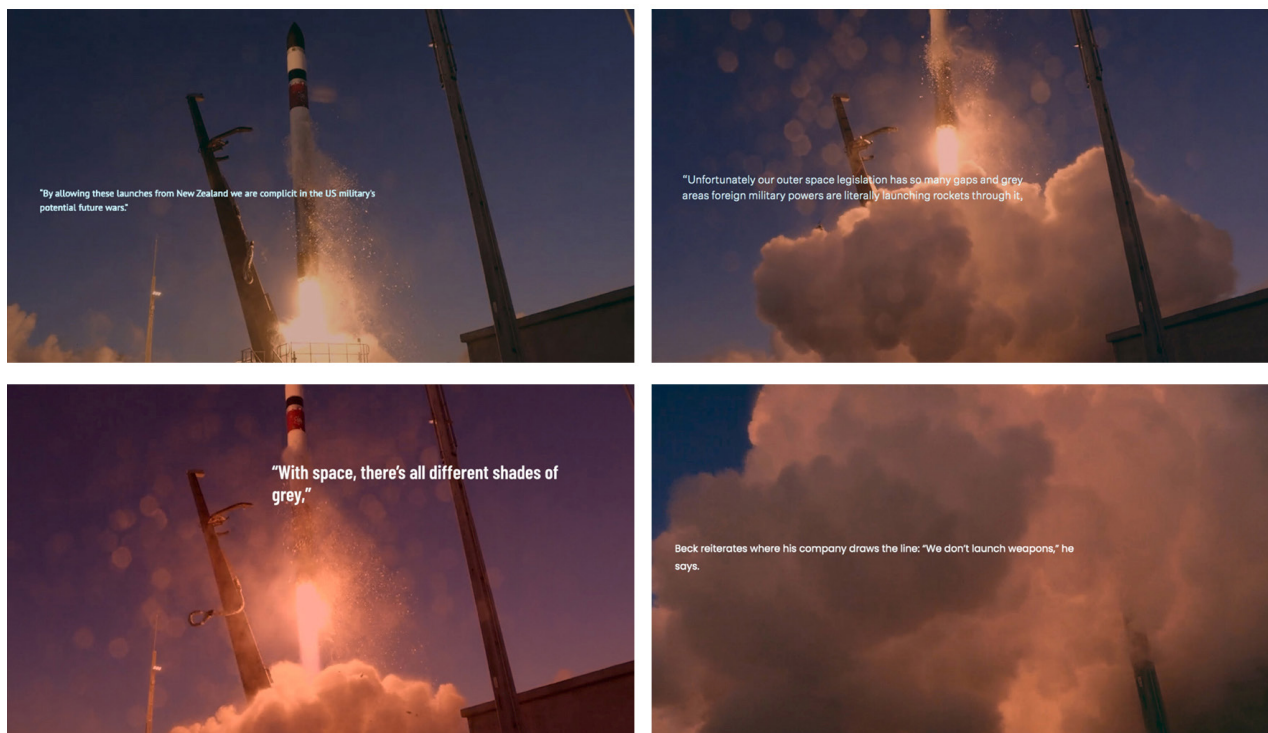


Figure 13. Stills from *We Don't Launch Weapons*, video-collage, 4 minutes 1 second (loop), 2022; Another artwork made early in this research that incorporated appropriated Rocket Lab material.

Having decided against incorporating explicit Rocket Lab media images, I question how Gothic conventions might fold into documentary photography to imply an anti-military criticism of Rocket Lab. The Gothic mode migrates by melding incongruous Gothic motifs into local iconographies, allowing viewers to glimpse familiar environments anew. The appropriation of Gothic codes in my documentary film and photo artworks lets me speak to the non-visible realities of the sites I am imaging. My film work *The Shining* expresses a Gothic mode within a documentary methodology by documenting AUT conference room WA224—where I attended MBIE's New Zealand Space Policy Review Meeting—through a series of dolly shots.

The dolly shot, creeping in and around architectural environments, is a distinct code of the Gothic that squashes and distorts rational space (Fig. 14).⁶² The gliding motion of the dolly shot appears throughout Gothic cinema—notably *Dracula* (1931)—to manifest the mode's antipodal moods of trepidatious discovery and predatory advance. The former mood resonates with the documentary field's contested commitment to sight and seeing. The latter aids in my characterisation of Rocket Lab's public relations persona through a vampiric metaphor.

62 Kavka, "The Gothic on Screen," 216.



Figure 14. Stills from *The Shining*, digitised 16 mm film, 3 minutes 5 seconds (looped), 2023; These stills demonstrate the dolly effect.



Figure 15. Stills from *The Shining*, Horror (Warner Bros., 1980); The first still demonstrates the film's distinctive lighting and dolly shots. The second depicts Jack Torrance (Jack Nicholson) supernaturally observing his wife and son through a scale model of the hedge maze they are trapped within.

Reviewing my footage from AUT University conference room WA224, the influence of the 1980 horror film *The Shining* is legible in the dolly shots and blown-out diegetic lighting (Fig. 15). *The Shining* is an example of a modern Gothic text that revives the Gothic's exploration of historical trauma via repeated reference to America's colonial genocide and the ambivalence held toward this genocide by settler America.⁶³ By integrating the appropriated Gothic aesthetic of *The Shining* with the documentary method of site photography, my artwork suggests that the government-industry processes enabling US military projects in Aotearoa similarly result from ahistorical amnesia.

The dolly shots I use overlay this nondescript conference room with associations of the Gothic archetype of the maze.⁶⁴ Using dolly shots to document this conference room allows me to render my unease toward the labyrinthine processes of participating in this government consultation.

The common recognition of a distinct 'New Zealand Gothic', popularised in Sam Neill's film history documentary *Cinema of Unease* (1995), allows me to frame my opposition to Rocket Lab within a broader questioning of colonial national identity in Aotearoa.⁶⁵ Rocket Lab founder Peter Beck's celebration by the government and news media evokes Pākehā mythologies about the ingenuity and resourcefulness of New Zealanders.⁶⁶ The propagation of such mythologies historically accompanies colonial notions of Aotearoa as hostile and unpeopled.

My moving image work, *The Shining*, involves a scale model of a New Zealand colonial villa (Fig. 16). Drawing together the sites of Rocket Lab's activities and the symbol of the colonial villa allows me to link colonial land dispossession to US military imperialism. Built en-masse, from native wood, to support the growth of the Pākehā population and now a motif of the 21st-century housing crisis, the villa is a symbol haunting the national psyche.⁶⁷ The treatment of this subject through an imitative scale model alienates this symbol from its aspirational associations and isolates it from any neighbourhood, provoking a critical eye on national mythology.

63 Bill Blakemore, "Kubrick's Shining' Secret", *Washington Post*, July 12, 1987, <https://www.washingtonpost.com/archive/lifestyle/style/1987/07/12/kubricks-shining-secret/a7e3433d-e92e-4171-b46f-77817f1743f0/>.

64 Solnit, "The Garden of Merging Paths," 54; Writer Rebecca Solnit believes discussions of technological ethics invariably lead to maze images because this archetype evokes the impossibility of navigating the abstract implications of future technologies

65 Costa Botes, "A General Perspective on Cinema of Unease," *NZ On Screen*, September 11, 2013, <https://www.nzonscreen.com/title/cinema-of-unease-1995/background/costa-botes>.

66 Simon Hendery, "National Portrait: Peter Beck - NZ Space Pioneer Once Mocked for His Vision," *Stuff*, June 30, 2017, <https://www.stuff.co.nz/business/industries/93375532/national-portrait-peter-beck--space-pioneer>.

67 Misha Kavka, "Out of the Kitchen Sink," in *Gothic NZ: The Darker Side of Kiwi Culture* (Dunedin, N.Z.: Otago University Press, 2006), 57; Kavka discusses home renovation as New Zealand's national pastime, affirming the colonial villa as an icon of settler identity.

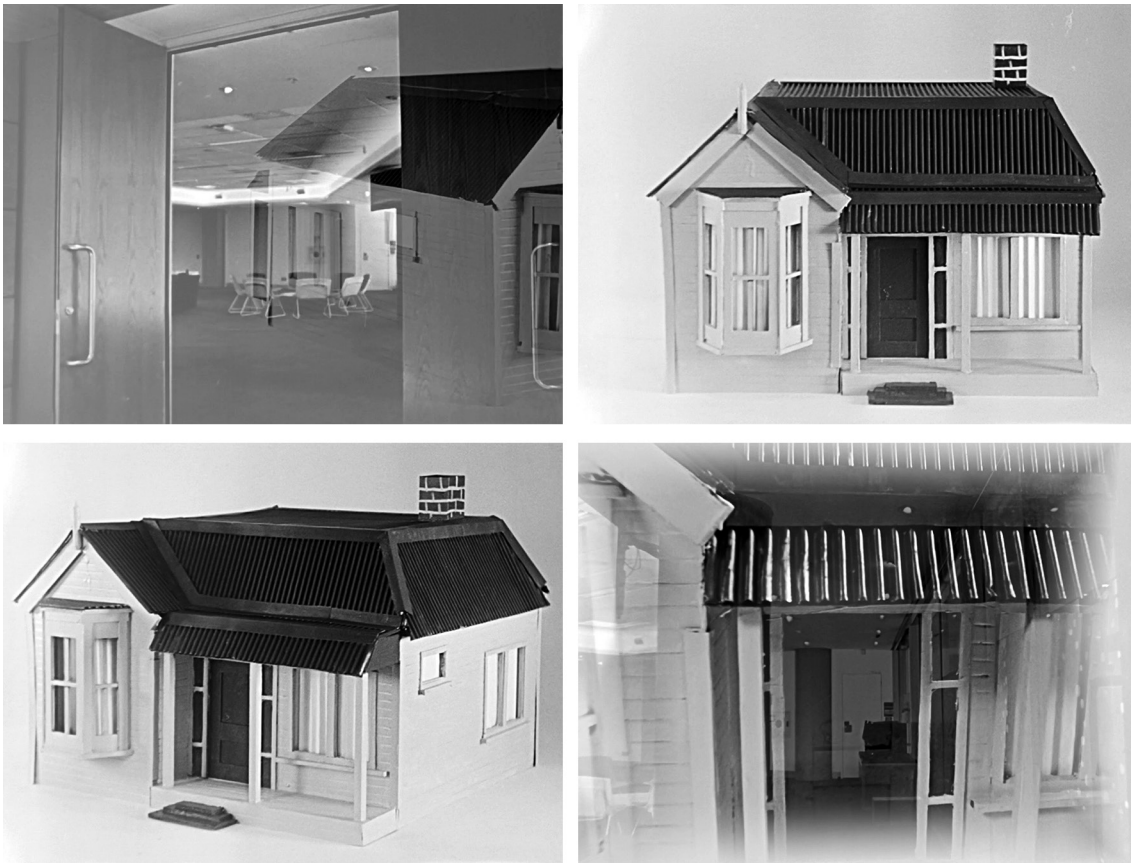


Figure 16. Stills from *The Shining*.

In the context of my film, this generic villa is exterior to AUT conference room WA224's interior. To dissolve from the colonial villa into the subterranean columns of AUT suggests a sinister relationship between cozy suburban profit and closed-doors government diplomacy. The association of this archetypal domestic environment with anonymous bureaucracy speaks to the gothic code of the repressed past erupting in the home. The concealed past is that of New Zealand's military ties to US imperialism and ambiguous foreign policy.

In this chapter, I have proposed the Gothic as a mode that shapes my documentary photography's subjective gaze and interpretations. The Gothic's malleable, terrestrial, historical focus makes this mode suitable for counter-imaging Rocket Lab's celestial fantasy, although this counter-image must delicately negotiate recycling the potent imagery of the military sublime. Gothic codes manifest within this research through the use of dolly shots, scale models, and analogue film to understand Rocket Lab's military projects within a broader questioning of New Zealand's national identity. The following chapter explores how imaging the land, sea, and sky can further contest US military imperialism in Aotearoa.

Chapter Three

Imaging the Land, the Sea, and the Sky

Land imagery, which also includes modes other than photography, is thought to furnish expressions of national identity.⁶⁸ My research links four environments through their distinct connections to Rocket Lab: Rocket Lab's Māhia Peninsula launch complex and Mount Wellington factory (Fig. 17), the proposed-but-cancelled launch site on Kaitorete Spit, and an AUT conference room that hosted MBIE's feedback session about space industry regulation. Challenging US military imperialism in Aotearoa requires questioning the national identity myths that foster such imperialism. In this chapter, I will consider how my imaging of the land, the sea, and the sky, can question and complicate New Zealand's national identity, in order to expand understanding of how Rocket Lab and the New Zealand government are enabling US military expansion.

Theorist Jasmine Gallagher suggests that to critically engage with national identity necessitates critiquing fantasies of Aotearoa as isolated, sparsely populated, and pristine; fictions rendered in the glossy photographs illustrating Tourism New Zealand's infamous *100% Pure* campaign (Fig. 18).⁶⁹ This imagery forms a Pākehā land mythology that Gallagher claims has endured by legitimising constant land development. Furthermore, this virginal picture of Aotearoa conceals Māori-Pākehā land disputes by rendering the land as continuously uninhabited. Ecologist Geoff Park argues that expressions such as 'picturesque,' 'landscape,' and 'scenery' interpret the land as backdrops to be observed instead of places to live.⁷⁰ My attempts to establish counter-images involve foregrounding human habitation within my photography, focusing on the core technologies—roading, power lines—that connect the land to global infrastructures.

Returning to military imperialism, this aestheticisation of Aotearoa—a tourist destination rather than a homeland—is analogous to the US military's portrayals of Bikini Atoll as a South Pacific Eden. In both examples, advertising slogans characterise the inhabited, sovereign nation as innocent, waiting to be completed by international visitors.⁷¹ Whether it is atomic weapons propaganda or Rocket Lab's aerial footage of Māhia Peninsula, touristic landscape photography's representation of the land as passively beautiful enables the suppression of anti-military counter-narratives.

68 Geoff Park, *Theatre Country: Essays on Landscape & Whenua* (Wellington: Victoria University Press, 2006), 58.

69 Jasmine Gallagher, "The New Sincerity in Aotearoa's Landscape Mythology."

70 Park, 97.

71 Hales, 19; Tourism New Zealand, *100% Pure New Zealand: A Welcoming Journey*, YouTube advertisement, 1 min, 2018; This Tourism New Zealand advertisement includes the narration: "If these lands could speak, what would they say? They would say... welcome."



Figure 17. *Rocket Lab Ltd., from Bertrand Reserve, Mount Wellington*, digitised medium-format photograph, 2023.



Figure 18. Tourism New Zealand, stills from *A Message From New Zealand*, YouTube advertisement, 1 min, 2021; This advertisement is a recent example of the ongoing 100% Pure campaign. In a montage of 'regular' Kiwis, this advertisement includes Rocket Lab co-founder Peter Beck in the Rocket Lab control room.

My photography documents human impact on ‘natural’ land, albeit in the less visible context of arms development. Through my documentary approach, I aim to criticise land mythology’s role in military imperialism. In *The Strength of the Vampire*, the unpeopled beach is sequenced with handheld footage—filmed from a car window—of Māhia township, and diggers (Fig. 19). Park contends three types of land are central to identity in colonial Aotearoa: the peopled grid town, the peopled pasture, and the unpeopled forest.⁷² Each is socially constructed, and understood as a logical partitioning of the environment. This understanding of land, in Park’s framing, continues to condone the historical dispossession of Māori land. For some Māori in Māhia, Rocket Lab’s presence has limited their access to wāhi tapu and kaimoana gathering areas, contrary to promises made by Rocket Lab.⁷³

The Strength of the Vampire explores these three conceptualised land types on the road to Rocket Lab’s Māhia launch site. My film leaves Māhia township, gazes into the forest, and bounces back to the pasture. The interpolation of an appropriated carriage from *Dracula* suggests a parallel between domestic land mythology and America’s frontier imaginary, of which the covered wagon is an icon. The non-synchronous voiceover from Green Party MP Teanau Tuiono further clarifies what these environments symbolise on a human scale.

In my gallery installation, I arrange still and moving representations of these disparate sites to interact with one another. I do not cut between locations within the enclosed unit of a single artwork. *The Shining* takes place in WA224 and does not dissolve into Mount Wellington, Kaitorete Spit, or Māhia Peninsula. I maintain such partitions because, as much as my research focuses on Rocket Lab and military imperialism, it also involves appreciating these environments’ separate meanings. I prefer to show the film works on multiple projectors rather than as a single-channel collection. This parallel presentation expresses the paradoxical condition of understanding these four environments as simultaneously continuous yet unconnected.

My documentary land photography, in parallel with my moving image works, uses titling, context, and supplement to draw four locations into continuity. I remain aware that the story of current-day militarisation I am telling is just one possible significance these sites have, together or individually. When photographer Wayne Barrar photographs the Lake Grassmere Saltworks near Blenheim, throughout the late 1980s, material history is conveyed in his attentiveness to the intersections of industrial impact and existing geology (Fig. 20).⁷⁴ The rich colour and dynamic shadow in Barrar’s images demonstrate that decay and pollution can be photogenic and problematic. Barrar complicates the incompatibility of his photo

72 Ibid., 42.

73 Teanau Tuiono discusses this land access conflict in the interview transcript included in the exhibition.

74 Wayne Barrar and Geoff Park, *Shifting Nature* (Dunedin, N.Z: University of Otago Press, 2001)



Figure 19. Stills from *The Strength of the Vampire*.



Figure 20. Wayne Barrar, *Brine control gates and canal*, cibachrome print, 275 x 355 mm, 1988.

documents and political beliefs by writing that his selection of locations is—in a sense—arbitrary.⁷⁵ Colonial land dispossession means all land in Aotearoa is contested. For my research, Barrar's idea is a reminder that my documentary images express certain and limited realities. They cannot represent these locations in entirety.

When I photographed Kaitorete Spit, the land that nearly became Rocket Lab's Aotearoa launch complex before Māhia Peninsula, I sought to emphasise the site's flatness, dryness, and isolation (Figs. 21 and 22). In the context of this research, I want my audience to imagine why this site was not selected. I want the audience to question what relationships Rocket Lab's activities have to the qualities of any natural environment, and why Rocket Lab chose Māhia's craggy valleys. A conversation with a former Kaitorete Spit farmer leads me to believe that the inaccessibility of Māhia to protestors was a consideration.

In my photographic compositions, I often favour a level horizon and set the tripod at a far distance to wholly frame my subject. I want the audience to be able to understand how the subject interacts with the surrounding environment. When photographing buildings within the land—the factory, conference room WA224—my 120 film's square format and the Academy 4:3 ratio of my 16mm film emphasise these structures' rigid geometries (Fig. 23). In doing so, I express the banality characteristic of military weapons development. It would be misleading to suggest that Rocket Lab's military contracts, or the New Zealand government's facilitation of such contracts, are in some way remarkable. The military-industrial complex is involved in many seemingly peaceful industries. For this research to incite opposition to the militarisation of Māhia Peninsula, my outcomes must work with the invisible ubiquity of weapons development.

Photographer Peter Goin's photographic series titled *Nuclear Landscapes* documents land modification in the aftermath of US government nuclear testing or power generation.⁷⁶ Akin to my research, these photographic studies have an implied ecocritical cynicism. Consistent with his contemporaries, Goin's images are only remarkable with knowledge of their subject's radioactivity.⁷⁷ Unusually for photography, Goin captions the photographs within the photograph's perimeter. For example, a nondescript concrete block in a vast desert is labelled *Ground Zero & Tower* (Fig. 24). Goin's titling points toward the subject of his photographs, a pragmatic functionality I have pursued in the titling of my photographs. Goin's project directs awareness to how human impact on the land can be largely imperceptible. Consequently, he provokes his audience to look differently at the land once they leave the gallery.

75 Ibid., 24.

76 Peter Goin, "Nuclear Landscapes," Artist's Website, Peter Goin, accessed April 2, 2023, <https://www.petergoin.com/nuclear-landscapes>.

77 David Company, "Safety in Numbness: Some Remarks on the Problems of 'Late Photography'," accessed April 19, 2023, <https://davidcompany.com/safety-in-numbness/>; Company's notion of late photography describes photographs that document the aftermath of disaster. These images refer to a past event rather than document its occurrence.



Figure 21. *Tyres and Irrigation Tower, Kaitorete Spit*, digitised medium-format photograph, 2023.



Figure 22. *Cows, Kaitorete Spit*, digitised 35mm photograph, 2022.



Figure 23. Rocket Lab Ltd., storage, Mount Wellington, digitised medium-format photograph, 2023.



Figure 24. Peter Goin, *Ground Zero & Tower*, chromogenic Development Print / digital pigment print on watercolor paper, 4x5 negative, 1987 / digital print 2022-23. © Peter Goin, copyright, all rights reserved.

My images of WA224 are not obviously land photography. I conceive of them as such to emphasise the land excavation of urban development (Fig. 25). Much as Rocket Lab and its competitors expand warfare up to the skies, urban construction extends down into the earth. Linking Rocket Lab to underground environments associates this company with subterranean ecosystems such as underground nuclear bunkers and data centres that empower the US military and Big Tech, respectively. Although nothing is innately sinister about below-ground construction, this imagery speaks to my research's positioning of information about Rocket Lab's military contracts as deliberately invisible or inaccessible.



Figure 25. *AUT Conference Room WA224 #4*, cyanotype print from medium-format photograph, 200mm x 200mm, 2023.

In my artworks, images of the sea and sky provide a brief respite from the wearying onslaught of buildings and excavation. This dynamic—a Gothic dualism of fear and tranquillity—allows audiences to imagine alternatives to militarisation and its associated land development. The sea and sky are environments to live within, beside, and below rather than places to conquer. The sea and sky's volatile mutability can be imaged to contradict the sturdiness of human infrastructure on land. Erika Balsom interprets the filmed ocean through theorists Deleuze and Guattari's portrayal of the sea as everyday evidence that environments

can exist without visibly divided ownership.⁷⁸ Oceans and air space are divided into political territories—consider the nuclear-free waters of Aotearoa—but these divisions do not mark the surface as tangibly as paddocks and roads.

The Strength of the Vampire contains two distinct sections. One half has handheld footage of the road to Rocket Lab’s launch complex at the tip of Māhia Peninsula. The other half is a slow study of the ocean filmed from a fixed camera on the shoreline by Blucks Pit Road, an area designated ‘rocket launch viewing area’ by Wairoa council (Fig. 26). A handheld pan of the clouds above Māhia bridges the two sections. The ocean imagery in my film aims to counter, or ‘un-do’, the forms of land management documented in the road footage. Juxtaposing Rocket Lab’s precisely paved access road with the expansive, disorderly ocean below challenges this company’s sovereignty.



Figure 26. Still from *The Strength of the Vampire*.

In the still photograph *Puddle, Kaitorete Spit*, the ripples of a roadside puddle take on an oceanic quality (Fig. 10). The deep water of the puddle consequently offsets the rigid powerlines and fencing in the top half of the composition. In Tacita Dean’s films *Teignmouth Electron* and *Disappearance at Sea* (1996) (Fig. 28), her subjects—a beached trimaran and St Abbs Head Lighthouse—illustrate technological attempts to control ocean navigation. The endlessly breaking waves encircling these subjects suggest the limits of such endeavours. As within my research, Dean’s ocean imagery proposes the unknowable as an alternative to the knowing of land ownership and data control.

78 Erika Balsom, *An Oceanic Feeling: Cinema and the Sea*, Statements (New Plymouth, Aotearoa New Zealand: Govett-Brewster Art Gallery, 2018), 29.



Figure 27. *Estuary Scrub below Rocket Lab Ltd.*, Mount Wellington, photographic print, 500mm x 500mm, 2023.



Figure 28. Tacita Dean, film still from *Disappearance at Sea*, 16mm anamorphic film, color, 14 min, 1996. Courtesy the artist; Marian Goodman Gallery, New York/Paris/Los Angeles and Frith Street Gallery, London.

When photographing the sky above Māhia Peninsula, I thought about how what goes up here will control what comes down somewhere else. Although the atmosphere has been a source of wartime anxiety since the early 20th century, the recent developments of atmospheric surveillance and drone warfare have compounded these legitimate paranoias. As discussed in chapter two, Rocket Lab's visual iconography deploys sublime associations between the clouds and the heavens. I counterimage this iconography through the way I use my film camera, emphasising my terrestrial feet throughout this research. I am not amongst the clouds. I am below them (Fig. 29).

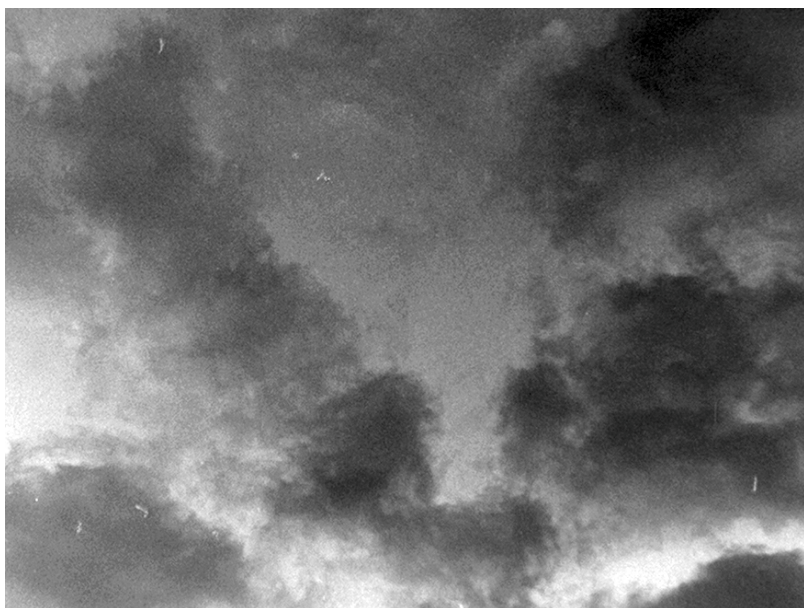


Figure 29. Still from *The Strength of the Vampire*.



Figure 30. James Benning, still from *Ten Skies*, 16mm film, colour, 100 min, 2004.

Artist James Benning's *Ten Skies* (2004) is a 16mm feature film comprising ten fixed ten-minute shots of ten different skies (Fig. 30).⁷⁹ In one sense, *Ten Skies* is formalist artwork referencing avant-garde predecessors such as Materialist filmmaker Peter Gidal. But the formalist cinema's facilitation of slow ways of seeing benefits Benning's sociopolitical investigation of industrialism and America's 'war on terror'.⁸⁰ The non-synchronous audio tints these slowly changing cloud forms with the noise of gunfire and machinery. Through this accompaniment, Benning encourages the audience to move beyond divine awe and contemplate the sky as a site of pollution and warfare. The camera's position on the ground suggests an individual responsibility for such violence.

The sound design of *Ten Skies* dramatically colours how an audience reads documentary land footage. Within my research, shooting analogue film has reminded me of film sound's historical plasticity. Digital video devices automatically record synchronised audio, providing a default base soundtrack to build upon in editing. The Bolex I film with records no audio, so the soundtrack begins as a blank slate. As my images are often ambiguous, sound design is a method for communicating critical contexts. I can fulfil this imperative plainly by using a signifying sound—a satellite beep—to suggest a pertinent theme—Rocket Lab's contribution to satellite targeting networks.

In *Teignmouth Electron*, Tacita Dean's footage of the titular vessel is soundtracked by field recordings from the same location. The austere soundtrack flows between individual shots, diegetic but not synchronised. These field recordings enrich the viewer's perception that the images accurately document her subject by presenting a continuous, concrete environment across sound and vision.⁸¹

Compared to Dean, artist Pierre Huyghe's sound design is far more expressionistic. Like *Teignmouth Electron*, Huyghe's *Untitled (Human Mask)* (2014) documents technological collapse: the 2011 Fukushima nuclear disaster.⁸² The looped work 'opens' in the derelict streets of Fukushima (Fig. 31). A drone camera creeps between broken windows and crumpled walls, soundtracked by the drone's harsh buzz, and muffled emergency announcements in the distance. Huyghe's ominous sound design establishes the complete piece's apocalyptic mood.⁸³ His warping of the emergency warning system challenges the capacity of nuclear safety protocol. Fukushima's residents have fled the city and the administrative mouthpiece drones on incessantly.

79 Erika Balsom, *Ten Skies* (Victoria, Australia: Fireflies Press, 2021).

80 Ibid., 125.

81 Dean exhibits *Teignmouth Electron* as a single-channel film loop on a 16mm projector, meaning the projector rattle complements the field recordings. In tandem, these two soundtracks involve the viewer in Dean's investigation of a site while reminding them that the medium of analogue film moderates their experience.

82 Mark Lewis, *Pierre Huyghe: Untitled (Human Mask)*, One Work (London: Afterall Books, 2021).

83 Ibid., 26.



Figure 31. Pierre Huyghe, still from *Untitled (Human Mask)*, film, colour, stereo sound, 19 min, 2014. Courtesy of the artist; Hauser & Wirth, London; Anna Lena Films, Paris © Pierre Huyghe

My sound design fits somewhere between the strategies of Dean and Huyghe. *The Strength of the Vampire* and *The Shining* incorporate ambient recordings from their sites. These sounds of waves and air conditioning specify and individuate my images. They suggest these environments extend beyond the frame, supporting my research's intention to connect these militarised locations to recognisable local contexts.

Moving to more figurative sound design, I have 'sweetened' these field recordings with appropriated sounds to enrich my representations of these environments. For *The Strength of the Vampire*, I have added the sounds of sheep and peacocks. Film-sound theorist Michel Chion coined the term 'rendering' to describe using artificial sound to express the feeling of an on-screen 'situation' rather than precisely replicating the situation's 'real' sounds.⁸⁴ There were sheep and peacocks in the paddocks I filmed, but they were too far away to register in my field recordings. By incorporating and highlighting these animal calls, my footage more distinctly depicts the invented New Zealand paddock defined by Geoff Park. *The Strength of the Vampire* entwines sheep bleating, satellites humming, and a take-off blast, to describe how histories beyond the frame—farming, satellite targeting, military technology—shape those within.

This chapter has explored how land, sea, and sky photography can express land as a multi-faceted habitat rather than a tourist destination or economic resource. Imaging land, sea, and sky can afford different ways of seeing our environment's past and future. These earth-based ways of seeing can work with or against a military gaze. Recorded diegetic sound affects a spectator's experience viewing representations of the land, sea, and sky, emphasising my position within these environments, rather than above them, where, for example, the cries of peacocks are inaudible. In the following conclusion chapter, I will discuss the discoveries of this research and what I intend to do next.

84 Michel Chion, Claudia Gorbman, and Walter Murch, *Audio-Vision: Sound on Screen* (New York: Columbia University Press, 1994), 224.

Conclusion

Throughout this research, I have sought to use a Gothic-infused documentary film language to speak against US military imperialism as it manifests in Aotearoa. The Gothic mode is most relevant for its essential mood of unease. This mood functions to puncture the glistening tech optimism surrounding Rocket Lab and its competitors. As Rocket Lab's boosters continue to bang a gong for the company's exceptional accomplishments, I have sought to pull this discussion down to earth and plant it in the soil of military violence.

International military collaborations happen all the time in Aotearoa, as much as the national culture might want to imagine a land of good sorts. The suppression of such truths—including participating in US warfare through Five Eyes and Rocket Lab—perpetuates these relationships. As Teanau Tuiono discusses in my interview, even if these collaborations appear mundane, New Zealand's support for American surveillance is a piece of theatre that implies tacit support for all American warfare.⁸⁵ A codified foreign policy remains elusive as long as the New Zealand public upholds the myth of this country as an independent peacekeeping nation.

Complicated military events are always unfolding here. There will never be time to step back and survey the wreckage comfortably, or visually represent military imperialism in its totality. With this practice-led research, I have attempted to engage in public discussion in what ways I can. As I continue this research, I plan to further explore interviews as a documentary method, drawing on my developed understanding of audio interviews as an expression of documentary truth's multiplicity. My ongoing imaging of land will employ an earthly gaze to continue questioning the celestial sublime of the military gaze through a mood of Gothic unease. I have faith that the New Zealand public—or a decisive portion thereof—can draw a moral line on arms development because it has in the past. A reminder of the legacy of the New Zealand nuclear-free zone may be what it is needed to fight for its preservation.

⁸⁵ This interview is included in the exhibition of this research as a recording and as a transcript.



Figure 32. Road Sign, Ahuriri Point, Māhia Peninsula, digitised 35mm photograph, 2022.

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Appendix I

Exhibition Room Sheet and Floorplan

Terrestrial Chains

Theo Macdonald / MVA Exhibition / June 2023

Terrestrial Chains explores how technical and symbolic codes of the Gothic mode can integrate with documentary-cinema methods to counterimage US military contractor Rocket Lab's militarisation of Māhia Peninsula. The artworks produced aim to disseminate information to encourage an informed public discourse and persuade the New Zealand public to oppose Rocket Lab's military projects.

This research uses still and moving analogue photography techniques to frame Rocket Lab's suppression of arms proliferation discourse within the environments where this suppression occurs. These environments include Rocket Lab's Māhia Peninsula launch complex and Mount Wellington factory, the proposed-but-cancelled launch site on Kaitorete Spit, and an AUT conference room that hosted MBIE's feedback session about space industry regulation.

Documentary strategies, such as photographing land and expert interviews, merge with domestic scale models and gliding dolly shots. Analogue film processes, including 16mm moving film, situate this discourse around current-day military imperialism in continuity with the history of nuclear testing in the Pacific. These methods frame a broad examination of national identity, as it informs public perception of US-NZ military relations, through a Gothic unease.

Figure 33. *Terrestrial Chains* exhibition room sheet front.

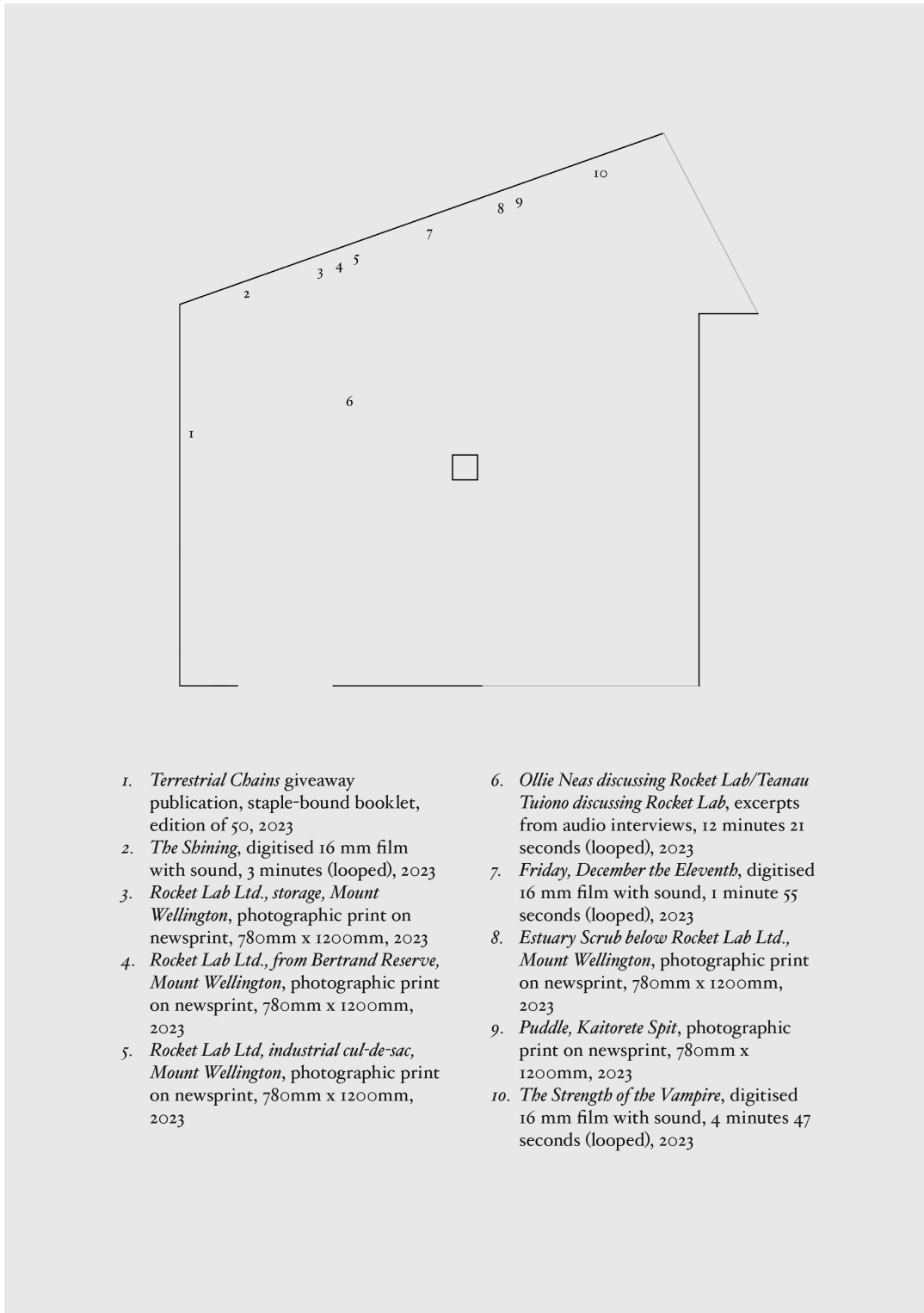


Figure 34. *Terrestrial Chains* exhibition room sheet back.

Appendix II

Exhibition Documentation



Figure 35. *Terrestrial Chains* exhibition installation 1, photo courtesy of Paul Chapman.



Figure 36. *Terrestrial Chains* exhibition installation 2, photo courtesy of Paul Chapman.

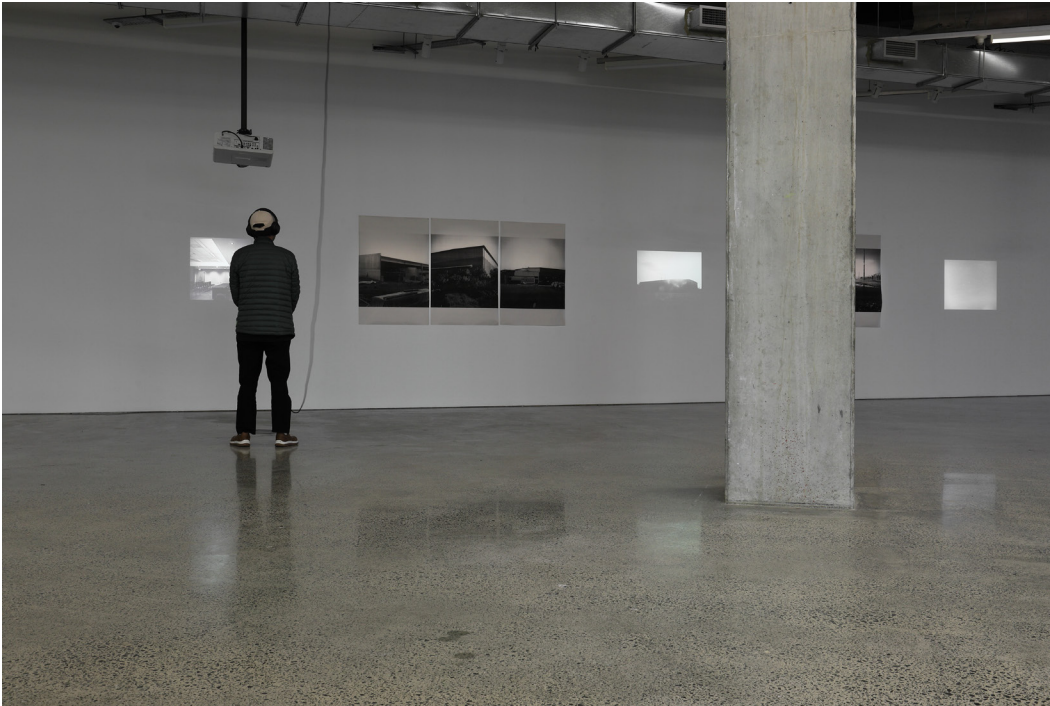


Figure 37. *Terrestrial Chains* exhibition installation 3, photo courtesy of Paul Chapman.



Figure 38. *Terrestrial Chains* exhibition installation 4, photo courtesy of Paul Chapman.



Figure 39. *Estuary Scrub below Rocket Lab Ltd.*, Mount Wellington, photographic print on newsprint, 780mm x 1200mm, 2023; *Puddle, Kaitorete Spit*, photographic print on newsprint, 780mm x 1200mm, 2023.



Figure 40. *Rocket Lab Ltd., storage*, Mount Wellington, photographic print on newsprint, 780mm x 1200mm, 2023; *Rocket Lab Ltd., from Bertrand Reserve, Mount Wellington*, photographic print on newsprint, 780mm x 1200mm, 2023; *Rocket Lab Ltd, industrial cul-de-sac, Mount Wellington*, photographic print on newsprint, 780mm x 1200mm, 2023.



Figure 41. Still from *The Shining*, digitised 16 mm film with sound, 3 minutes (looped), 2023; <https://youtu.be/esE2EOs52eU>



Figure 42. Still from *Friday, December the Eleventh*, digitised 16 mm film with sound, 1 minute 55 seconds (looped), 2023; <https://youtu.be/3OEbeL7WMSU>



Figure 43. Still from *The Strength of the Vampire*, digitised 16 mm film with sound, 4 minutes 47 seconds (looped), 2023; <https://youtu.be/xuN1CfSIGvA>

Appendix III

Exhibition Publication

The following pages contain a facsimile of the publication *Terrestrial Chains*, included in the exhibition as a giveaway and produced in two editions of fifty.



Terrestrial Chains

Aotearoa New Zealand's involvement with American military forces is often opaque to the New Zealand public. Since the anti-nuclear campaigns of the 1980s, endorsed by (majority) state and citizenry, a myth has advanced that this nation innately opposes US military aggression. This myth, entwined with notions of an independent foreign policy, has shaped a national identity around the misconception that New Zealand is a peacekeeping nation. The US military's relationship with New Zealand-based aerospace manufacturer and space launch provider Rocket Lab demonstrates that the truth of NZ-US relations is far more complicated.

One aim of my postgraduate research, through which I produced this publication, is to encourage an informed public discourse on Rocket Lab's military ties and how these relate to longstanding questions of foreign relations in Aotearoa. The two conversations within this publication, with journalist Ollie Neas and MP Teanau Tuiono, express in detail the thinking that has led them to publicly oppose Rocket Lab's military contracts over the past five years. Ollie and Teanau's related but distinct attitudes toward Rocket Lab communicate the complexity and depth of Rocket Lab's peace movement opposition.

I hope anyone encountering these ideas through this exhibition or publication will come away with a better understanding of why Ollie, Teanau, me, and many others hold the concerns we do.

THEO MACDONALD

THE TWO FACES OF ROCKET LAB: An Interview with Ollie Neas

Ollie Neas is a freelance writer who has reported on Rocket Lab's US military contracts, and the criticism of these projects, for North & South and The Spinoff. He also works as a barrister, focusing on criminal law, and administrative and public law, and is the editorial director of the election website Policy.nz.

Theo Macdonald interviewed Ollie Neas about Rocket Lab on March 8, 2023. The interview has been edited for length and clarity.

Theo Macdonald: Why should Rocket Lab's military contracts specifically concern people in New Zealand?

Ollie Neas: Compared to other countries, New Zealanders have fairly easy access to the mechanisms of government, and changes that formerly seemed impossible have occurred. The anti-nuclear movement is a great example of that. There was a period when it would have been unthinkable to achieve prohibition on US naval ship visits in NZ harbours, but that was achieved through a lot of hard work over a very long period. The same thing can happen again.

At the same time, we need to acknowledge that there are obstacles to achieving a non-militarized space policy which are the same barriers to achieving a truly independent foreign policy. The work of Nicky Hager has illustrated that NZ's

defence agencies and foreign policy establishment have interests of their own that often deviate from the desires of the population at large.

On the one hand, many people, possibly most New Zealanders, have this idea of NZ as an independent actor on the world stage and a principled actor that stands up for what it thinks is right. [This NZ is] peace abiding, committed to multilateralism and doesn't just do what the large powers want it to do. At the same time, we are deeply committed to a military and intelligence alliance that serves essentially to uphold the military and economic dominance of the country that's been responsible for a huge amount of bloodshed and destruction over the last eighty years.

How do the anti-nuclear protests of the 20th century reflect that independent foreign policy conversation?

When we look back at the anti-nuclear movement, there are, again, a few threads to it again. On the one part, it was just about disarmament in and of itself. It was about opposition to weapons unlike anything humanity's ever seen, truly appalling technology that many people believe should not be allowed to exist. At the same time, it was also about those questions of NZ's place in the world and our relationship with a superpower that, in the 1970s and 1980s, was intervening all over the world to prevent countries

from exercising their self-determination. We see those same threads slightly differently with today's Rocket Lab issue.

This national identity crisis is embedded in Rocket Lab's military relationships, particularly how NZ understands itself as a peacekeeping nation. This can lend credence to US military operations as it suggests they must share our peacekeeping mandate.

Our self-image as peace-loving means we believe anything we do must be consistent with that self-image. At the same time, that self-image potentially covers the more nefarious and harmful activities we support.

Another conflict in our self-image that makes the Rocket Lab issue hard to work through is that it is a Kiwi success story. We love those for obvious reasons, and we shouldn't deny that, in many ways, the Rocket Lab story is remarkable. It's sensational that this company started by a self-taught rocket engineer from Southland has become a major player in one of the most cutting-edge industries worldwide. It's very hard to get our heads around the fact that this can be true at the same time as it's true that Rocket Lab's business is contributing to something quite destructive.

Was it Nicky Hager's reporting on international surveillance that led you to look at Rocket Lab differently than as a local success story?

The moment you start entering the space of talking about NZ's role in surveillance, or foreign military activity, you can't go past the work of Nicky Hager. He has done an amazing job of making something so abstract seem immediate and connected to past struggles, particularly around the anti-nuclear movement.

However, the reason I started looking at Rocket Lab was somewhat random. I worked for a while at a law firm and, in 2017, had to write a news summary of the new space law that was going through.¹ When NZ passed the Outer Space Act, the government was going to great lengths to make way for Rocket Lab's activity. The government signed up for an international treaty, passed new laws, and invested in the company at the same time. That got me thinking about the industry over the following months, and I started getting this feeling that there was more going on than met the eye. I had a general awareness of how space-based technology contributes to military activity and thought, although none of this was mentioned in any news coverage, maybe there was some of that going on here.

There are two sides to Rocket Lab. There's the first face of Rocket Lab, which is the face most people are familiar with, the plucky Kiwi startup, founded by someone tinkering with the parts in his garage, which has become this global success story and a leading company in the space industry. That's all true and real and something that's actually happened. But there's another side to Rocket Lab too: Rocket Lab has been a military contractor since its early days. Rocket Lab cut its teeth designing products for US military agencies, including technologies with explicit military applications. For example, Rocket Lab has designed products approved for use on Patriot missiles. Rocket Lab's funders include Lockheed Martin, one of the world's leading weapons companies, who invested early due to demand from military agencies.² Its funders have also included the CIA's venture capital firm [In-Q-Tel]. As a result of these activities, it's turned NZ into a launch pad for US military and intelligence satellites.

Space-based technology fits into military activities in a whole range of ways. Militaries rely on satellites for everything from communications to missile detection, targeting, reconnaissance, intercepting communications and spying on other satellites. The problem for us as people who don't have top-secret security clearance is that the technical details of the satellites that Rocket Lab has launched in NZ are often classified. Rocket Lab and the NZ government tend to say, oh well, the military satellites that have been launched are research and development in nature, or they're just demonstrating new technology. But we know that's not just the case. On the one hand, we know that the National Reconnaissance Office, one of the big five US intelligence agencies, has launched satellites from NZ. And they haven't disclosed what the purpose and function of those are. And we also know that even if these satellites are not operational in the sense of tying into active military activities right now, they are intended to improve warfighting capabilities.

The most significant example is the satellite Gunsmoke-J, launched for a US military agency to improve US weapons targeting capabilities. And in addition to that, Rocket Lab also launches satellites for a wide range of private companies who are themselves contractors for the US military. And many of those companies are involved in earth imaging, so they collect imagery of the earth and sell it to US military and intelligence agencies.

² Neas notes that Lockheed Martin has a small shareholding below five percent, and around 30 per cent of Rocket Lab's business is for US military intelligence agencies. These are estimates based on shareholder documents released when Rocket Lab was publicly listed in the US.

Rocket Lab talk a lot about environmental science and setting up a moon base, parts of their image that suggest they are advancing space exploration as a humanitarian project.

This perception reflects an effective lobbying effort because, around the time that work begins on the new space legislation, Rocket Lab essentially cleaned up its website. You go back to before 2015, and the website details all this military work.

Just thinking on the spot, we can break Rocket Lab's story into a few chapters. And the very beginning is when it is like a number eight wire, a DIY space startup operating out of Auckland. And at that stage, you've got two key figures involved: Peter Beck and Mark Rocket. They're one of thousands of startups around the world with big aspirations about the space industry. And there's a reasonable amount of media interest in them at that stage, little profiles in magazines, that kind of thing. And at that stage, to the extent they're asked about it, they say we're not interested in working with the military. And I think both Peter Beck and Mark Rocket were very clear on that. They just weren't interested.

Then there's a second stage where they become successful enough to start winning contracts with the agencies that have the money for this stuff, largely in the United States. And many of those agencies are military. That's when they have to make a choice, and they choose to accept money from US military agencies to grow as a company. But that's the point where those two key figures part ways. Mark Rocket says he doesn't want to have anything to do with it because of the work they're taking on. And he hasn't spoken publicly about the details of that, but he has confirmed that was a factor in why he stepped away. Then you've got Peter Beck, who says, no, this is my choice. I'm willing to make that trade-off.

I think the second stage is when they're doing research and development contracts for various government and government agencies. That's when they develop materials approved for use in Patriot missiles. That's when they develop reconnaissance and surveillance tools for use on the battlefield and a whole range of other stuff.

And then there's the third stage when they really professionalise and begin their launch business. That kicks off in 2017, when their first commercial launch takes place. So that's when we've got them lobbying the NZ government to get reform of our domestic laws to allow for the use of the military. That's when you've got them doing the same thing with the United States, trying to find suitable launch sites. And now we're into a new stage, where they're diversifying their activities beyond small launches alone.

Is there a division between the company's sincere interests and projects designed to distract from their military contracts?

I think most of the people working for Rocket Lab are truly optimistic about the impact of their work and are in it for really positive reasons. Some people are probably just excited by the technology, but many believe in its transformative possibilities. At the same time, it's no accident that Rocket Lab emphasises their humanitarian activities in public-facing materials. There's a recognition at some level that a lot of the work they do is unpopular. Otherwise, there would have been no reason to, you know, cleanse their website in 2015 when they were bursting into the public eye in NZ.

There has also been a shift in the last couple of years. Around the time their launch activities were starting, there was an effort to minimise or deny the possibility that they would be doing military work, despite having connections to the CIA, doing work for US defence agencies, and talking to US intelligence agencies about launches from NZ. Now that activity has been exposed and is fully in the public domain, the rhetoric has shifted. Nowadays, you hear Peter Beck, the Rocket Lab CEO, making a case for NZ's contribution to the Five Eyes security arrangements. And it's the same case made by politicians in NZ when they have to defend it: we get more from these security arrangements than we take, and without them, our security would be weakened.

That public-facing rhetoric has developed into "Yes, we are military, but military is good."

And now, this whole debate is also affected by the particular geopolitical context we find ourselves in, which is this growing confrontation between the United States and China. There's this idea being forced on us that we have to make some choice, and the choices are between the United States, which represents democracy and freedom, and China, which represents authoritarianism and tyranny. It's a repeat of Cold War rhetoric, essentially, and useful framing for Rocket Lab because it implies that we have no option other than to do what we already do. Of course, that's totally absurd. Those are not the only two options we have.

Do you think there's also an additional complicating factor with the Ukraine-Russia conflict, where, for the first time in my lifetime at least, America is involved in what's perceived as a "just-war"?

That's exactly right. Every foreign military campaign in which the US has been involved for the last thirty years has been almost entirely destructive and largely unjustified or unlawful. The war in Ukraine is far

more complicated. Most people would agree that other countries need to do their part in supporting Ukraine and defending themselves against what is largely a war of aggression. That's useful for companies like Rocket Lab, who can point to the contributions their technology can make in all of that.

That also points to different strands within the opposition movement to Rocket Lab and military space activities. Part of that tradition is pacifist, opposed to military activity anywhere. And then the other part is not pacifist but draws from, say, a socialist or democratic tradition, which isn't necessarily opposed to military activity per se but is concerned with NZ and other small countries' ability to stand up for themselves and to exercise their agency. With Ukraine, those two positions potentially come into tension.

Something we haven't touched on regarding opposition to Rocket Lab is the distinction between nationwide peace and disarmament activist groups and the Māhia-based protesters like Rocket Lab Monitor, whose concerns involve environmental and land access considerations. How do you think the general public perceives the Rocket Lab criticism in light of these various objections?

I think a lot of the public is committed to the good news story of Rocket Lab and, to an extent, doesn't particularly want to think about the complexities of the matter. I don't mean to say that people don't want to think about hard things, but the challenge is that it is such an abstract topic, and it's easy to see a rocket shooting into orbit. Understanding how that rocket contributes to warfighting and surveillance is much harder. As you say, the criticism does take lots of forms. That it is so multifaceted means it's hard for people to know what to hold on to. There's opposition to military activity. Then there's the concern about the environmental impacts. And then there's a concern about transparency, which is both at the local level, in how much has been disclosed to the community affected on the ground, and at the national level. How much should New Zealanders generally know about what we're contributing to?

Around the time when Rocket Lab was trying to establish its operations in NZ, at both the local and national levels, it was very careful in what it was disclosing about its planned activities. According to people that attended public meetings at that stage, at the local level, it was clearly saying that it would not be doing military launches. And at the national level, it was also doing a big push to say that its launches were all for peaceful purposes. And potentially the local level is where that feels most disturbing because the company went to great lengths to assure the community. It was having

regular public meetings, a model for corporate social responsibility. But then, when we look back, we have to ask whether the community was used. Many locals feel betrayed because the picture doesn't align entirely with reality. And military launches are just one part of people's concerns around that.

The transparency issue is one that I come back to. You're publicly on the record with a critical position, so people must ask what you want. What is it that you have a problem with?

Certainly, on the one hand, we need greater transparency. But then I reflect on this, and sometimes, when we point to a need for greater transparency, it's a cop-out because we mean something else. When you point to transparency, you usually have actual skin in the game. You do believe something about how things should turn out. And it does tie into these bigger questions about NZ's foreign policy. As a country, we need to discuss whether we are truly committed to being a principled voice in world affairs. And if we are, that means having greater distance from the security alliances we find ourselves in which mean we contribute to non-peaceful activities not keeping with allowing all countries self-determination. And I see the space issue through that frame.

Maybe the question is implicitly, "Do I think NZ should stop being involved with the space industry and/or Rocket Lab?" I don't think the choice is between the status quo and having no involvement with space exploration and activity in space. Most people, myself included, are excited about space exploration. It's a sphere of human activity that is inspiring. And you don't have to be a kind of Elon Musk technological optimist to think that, as a society or as a civilization, we should be interested in exploring what lies beyond Earth. And while it's true that militaries have played a huge role in the development of the space industry, it's not necessarily the case that the future has to look the same way. I guess I'm optimistic about the possibilities for political transformation on Earth, which makes me optimistic about the possibility of a future space industry that doesn't reflect the kind of military-industrial complex the way it has in the past.

Suppose you're concerned about some of Rocket Lab's activities, or you're talking to somebody who's a huge Rocket Lab fan, maybe even an employee of the company, or perhaps someone who's worked on NZ space policy in the public sector. In that case, there's no reason to dismiss the potential benefits they see. We can be excited about those things, but we also have to be very real about the harm it's causing, or could cause, and try to find a way through. ●





I'M TALKING ABOUT IMPERIALISM HERE: Teanau Tuiono on Military Satellites and Independent Foreign Policy

MP Teanau Tuiono is the Green Party of Aotearoa New Zealand's spokesperson for security and intelligence. He is based in Palmerston North.

Theo Macdonald interviewed Teanau Tuiono about Rocket Lab on March 2, 2023. The interview has been edited for length and clarity.

Theo Macdonald: What led you to first speak publicly about Rocket Lab on behalf of the Green Party?

Teanau Tuiono: I was at a Waihopai spy base protest a couple of years back, and I met with Oli Neas, who was doing a lot of investigative journalism around this stuff. And it was there that we started to speak out about it in the media because clearly, things are, at least from my perspective, so incredibly, purposefully vague in terms of how [government] permissions are given out for things being launched up into space.

From those comments, I got asked to go out to Māhia—the locals invited me out. And I thought, oh, geez, I might be going there to get told off. But they were supportive of the things that I was saying. And I went to the marae, and a big crowd was there. It was packed, and the wharekai was packed as well. And I wasn't too sure where they were at with this. But I heard that they were told a whole lot of things, and other things had happened. [Rocket Lab

told them] there wouldn't be any connections with military contractors, and if you go through the client list of Rocket Lab, all sorts of US military actors have been using Rocket Lab's services.

And so for me, after hearing the locals' concerns, it was like, what can I do to support? And so I came back and drafted a Member's Bill. And the point of the Member's Bill is to stop the launching of military payloads into outer space from Aotearoa. And we launched that [Member's Bill] at a protest outside of the headquarters of Rocket Lab.¹

So it was visiting Waihopai that initially engaged you with Rocket Lab's military involvement?

Nah, there was stuff on the radar. We were hearing things already, so I was already speaking up about things. But it was that visit at Waihopai and spending some time with Ollie and Nikki Hager, who was there as well, which solidified a lot of [my] ideas.

You know, of all the stuff that's been launched up there, you stop things from being launched [by focusing on the New Zealand Space Policy specification] that [Rocket Lab] can't launch things which are against the national interests.

¹ This Member's Bill was launched at the 'STOP militarisation' protest, organised by Auckland Peace Action, on June 21, 2021.



But of course, it's very vague about what national interest is and what it is not.

There were also some concerns from [the Public Advisory Committee on Disarmament and Arms Control (PACDAC)] around whether [Rocket Lab's military payloads] could breach our nuclear-free status as well. These are valid concerns, given that the Americans don't draw the same distinctions between conventional and nuclear weapons that we do. Who is responsible for the end use of some of these payloads when they end up in outer space?

Regarding your concerns about Rocket Lab, is the implication that because we don't know what these technologies are—because they won't tell us what these technologies are—their applications are limitless?

I would say that it's more than that. The Green Party has always had a commitment to the peace movement. It is a part of our kaupapa. And I think back to the time of Keith Locke, particularly, and his advocacy in opposing war. I remember seeing him speaking up against the war on Iraq. And to be upfront, I got arrested protesting against the war on Iraq outside the American embassy. So I consider myself part of the peace movement, and I consider this work that I'm doing as part of our wider Green Party kaupapa and our green movement. And so it is really important for me to make sure that I hold up that tradition that we have.

And if you look at it, and if you look at all the different things that Rocket Lab says that it's doing, they are a military contractor. They're sending stuff up into space on behalf of the US Space Force, National Reconnaissance Office, and BlackSky Technology. [BlackSky] are not officially part of the US military, but they do stuff for them. A couple of years back, they sent a satellite up called Gunsmoke-J. And that was deeply problematic because it was an experimental payload to help [the US military] focus live targeting during live combat.

These things should be challenged. These things should be called out. And the government should tell us exactly why these things are consistent with the national interest because I can't see it.

What does the term “national interest” mean to you?

We definitely need to have a bit more clarity about what that means. You can cover it by talking about how things are not in the national interest. So, payloads that contribute to nuclear weapons programs or capabilities. And then also by thinking about, well, you're launching these things up now, how do you know what the end use will be? Because that is important for where our responsibilities begin and end. I'm thinking about payloads with the

intended end use of harming and interfering with other spacecraft and payloads that might interfere with other countries' security and intelligence operations.

So, if you had this kind of stuff spelt out in law about what it isn't, then you can checklist against that when things go up.

I went to one of the feedback sessions for the New Zealand Space Policy review,² and I asked the representatives from the Ministry of Business, Innovation and Employment (MBIE) about what it means when they say that they don't launch things against the national interest, but won't say what they are. And the implication I got was that it's basically that, well, they respect business and military privacy because you need to have business competitiveness. There are questions that, to MBIE, are off limits—military, defense security questions.

Yeah, that doesn't wash with me.

The question raised for me is why MBIE manages what's essentially a defence concern.

That's what I was thinking as well. Why isn't it under the Ministry of Foreign Affairs, for example? Why are we devolving responsibility for our independent foreign policy to Rocket Lab and MBIE? Because I find the framing of this whole thing very problematic. It's framed around economic development. It's framed around jobs. But we've already got these other sort of obligations as well.

We have said things in the House, all parties, around making sure that we secure the peaceful uses of space.³ Everybody has said that before. There are international agreements that were signed in terms of that. And then, when we look at this, it's incredibly grey, and it's incredibly blurry. It's really important to get more definition within the [Outer Space] Act itself. As I said to [then-Minister of Economic Development Stuart Nash], hey, look, you should define what is not in the national interest, if you can't define what is in the national interest. Then we know. So if something goes up and you didn't know about it, at least you can go and tell [the company responsible] off. You can't just let things up [unregulated], because the lack of transparency is the problem.

² This refers to the New Zealand Space Policy Review Meeting held on October 13th, 2022 at AUT Conference Centre room WA224.

³ In 2016, New Zealand joined the United Nations Committee on the Peaceful Uses of Outer Space in anticipation of Rocket Lab's first successful rocket launch.

On a civilian level, at least from my perspective, I don't have any recourse because there's no line in the sand about what is national interest or what is acceptable as a payload. I can't look at those payloads. I can't look at a General Atomics launch that Rocket Lab's doing and then go somewhere and say, "this seems to clash with what you've just said", because nothing has really been established. There are these vague red flag categories, like, MBIE won't let Rocket Lab send up an actual warhead. But no one's suggesting that's going to happen.

But they could send up something else which might enable that [warhead]. The Americans want their whole military to be seamless and connected and all this kind of thing. So if that's their approach, we can't then go, well, we're just doing this little bit here, and it's not going to do this, and it's not going to do that, when, actually, it's part of the wider [American military] machine.

Many of the projects that have been launched—I'm thinking of the projects that have connections to General Atomics and Lockheed Martin—have this sort of environmental monitoring dual purpose, with a real emphasis on predictors of climate change, ocean currents, or fisheries. From my perspective, it looks like greenwashing. As the Green Party does push for environmental consciousness and action, how do you respond to military actors using this language as a shield for weapons?

I mean, what is the actual intention of them sending these things up? Why can't they just tell us? The purpose of the military is to defend, in this case, US interests. And there's that quote that military superiority in space will mean military superiority on Earth. And that's the game here. That's the trajectory. They're not sending these things up to help everybody. They're sending these things up to further their own interests. I'm talking about imperialism here. And so I think it's important for us to be clear about why we allow them to send those things up in space.

And I think about it when you look at how New Zealand often talks, right? So we talk about being independent, all of these things, yet we're knee-deep in Five Eyes, you know what I mean? So we're knee-deep in Five Eyes, but then, on the other hand, we're trying to do trade deals with China. And we have the language of being independent. We have the language of doing things our own way. But in reality, when you get down into the details of some of this stuff, and the way that Rocket Lab has been able to position itself, it's . . . it's the veneer of it that I don't like.

Do you feel like that lack of transparency relies on a general perception by New Zealanders that we're a peacekeeping nation?

Yep, absolutely. There's this idea [of independent foreign policy], but the idea and the reality are two different things. And so the legislation is purposefully vague so they can keep doing what they're doing. And I think it's a have, to be honest. That's why I support the work of Rocket Lab Monitor and the whānau up in Māhia, who have been calling this out for some time.

You mentioned imperialism before. And when you think about US imperialism in this part of the world, for me, the immediate association is the legacy of nuclear testing. When considering the history of anti-nuclear weapons protesting here, would you expect more opposition to these targeting satellites being launched?

There is a lack of awareness, I think, within New Zealand around our place in the world—a lack of awareness around Five Eyes and our part in that. I just think about the Waihopai spy base and Tangimoana and all of that. There's just a lack of awareness around that as well. People don't understand how much part of the US military machine we are. And that pushes back against our whole independence. Like the pride we had as people here in Aotearoa being part of a nuclear-free and independent Pacific, challenging nuclear testing in French-occupied Polynesia, telling the Americans if they don't tell us what's on their nuclear warships, get out. We hold on to that. But actually, in my view, the government has turned its back on that.

A lot of the stuff that we do is political posturing, right? So like, technically, the Americans don't need Waihopai, they don't need Tangimoana, they don't need all these little weird things that we do for them, and they possibly don't even really need Rocket Lab, but the political posturing is the more powerful element of it.

[America] like it when they have an alliance of willing countries to go and do their imperial stuff and other places around the world because it makes them look good even though, you know, they are the most powerful country in the world with the most powerful military. They don't physically need anyone else for that extra grunt, but they need that political posturing to make it happen. And so they, for example, have these little spy bases like Waihopai all around the world. China, on the other hand, has next to none.

It's the posturing of it which is the more potent element for them. And so what concerns me about Rocket Lab, in particular, is that it's a way to sort of outsource our responsibilities and that

question about our independence to companies like Rocket Lab. But it also gets us onside with the Americans, you know what I mean? We're doing our bit because Rocket Lab's doing it for us. And, by the way, we're still independent and a proud independent nuclear-free country, and all this kind of stuff as well, when actually we've just moved [our responsibility] into MBIE and framed it as an economic thing and a jobs thing and all this other kind of stuff as well. It's that kind of manipulation that I don't like.

How do you think the public as a whole perceives Rocket Lab and its place here?

[Rocket Lab is] a very well-oiled PR machine. And so the perception is good. People like Rocket Lab, what it does and so on and so forth. I don't. I think there are unanswered questions. I think the legislation is not fit for purpose. We need to say what is in the national interest but also what is not in the national interest. Sending up military payloads on behalf of a foreign military, which will help them to dominate space and then, of course, dominate us here on Earth, and to help them to spy on others and all of that stuff, is not, in my view, in line with what we've said about helping to support the peaceful uses of space.

That's why it being framed as a business opportunity does rankle so much, because it feels like you're never going to get people in business to talk on those terms, like that culpability issue.

And there are some other issues around Te Tiriti o Waitangi as well, like ensuring that things are done consistently with tikanga Māori, which wasn't done in this case. When I went [to Māhia] and talked to people, they were told one thing when other things were happening.

I went to a Zoom meeting where Sonia Smith was presenting on the feedback process for the Space Policy review, and she talked about how under Te Tiriti o Waitangi, there's this implication of respectful and equal partnership, right? But information as a resource in that partnership needs to be equally distributed. And I thought framing information inequality as a Treaty issue was quite a profound expression of how that kind of exploitation happens, particularly when it involves a tech company because that is ultimately one of the contexts that Rocket Lab lives in.

Some of [the Māhia locals] were also saying they were denied access to wāhi tapu. Actually [when I visited Māhia], we went right up to the [Rocket Lab boundary] gate, and I don't know if they fixed it, but

they had two gates to get into the site. One gate had this kind of fancy little thing, and then there was another gate right next to it, which was a bit rickety, which the Māoris could go through. It's symptomatic of how [Rocket Lab] has managed not to do this well. Did you really have a good kōrero with the locals? Or were you just selling bullshit to them?

And then there are environmental concerns. There's one kaumātua that I spoke to up [in Māhia] who was told [the rocket launches] weren't going to impact the environment, and they were doing some conservation work, and now those birds are all gone. There's no point in Rocket Lab assessing its own impacts on the environment. You need to have someone independent to do it. ●