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Mitigating Impacts of Disaster through Community Resilience

Whakawhanaungatanga vs. Zombies

Master of Design Thesis

Paige Koedijk
2025

Mitigating Impacts of Disaster through Community Resilience

Whakawhanaungatanga vs. Zombies

An exegesis presented in partial fulfilment of the requirements for the degree
of Masters of Design at Massey University, Wellington, New Zealand.

Paige Koedijk
2025

Abstract

This research contributes to the field of disaster risk reduction by utilising visual storytelling to emphasise the critical role of resilient communities in mitigating the impacts of climate-accelerated disasters, which disproportionately affect vulnerable populations.

The Peninsula, a fictional pānui, explores the mātauranga Māori principle of whakawhanaungatanga through the depiction of ordinary members from the Miramar Peninsula community in tongue-in-cheek survival situations during an ongoing zombie catastrophe. Leveraging Wellingtonians' appreciation for b-horror/humour storytelling seen in productions such as *What We Do in the Shadows* and *Wellington Paranormal*, the use of humour and the spectacle of a zombie context is an engaging narrative experience for readers to consider their contributions within their community in an emergency.

Some social change campaigns have gained viral levels of success through the use of evocative visuals and narratives to resonate with the public, as seen in Aotearoa's COVID-19 infographics and the CDC's 2011 zombie-themed hurricane information. The zombie as a narrative device functions as a versatile symbol for political or socio-economic commentary, serving in *this* research as a "trojan-horse" for conveying emergency management information with

a community focus. The social collaboration illustrated in *The Peninsula* mirrors the real world advantage of community resilience throughout the phases of an emergency. The design output is explored through affective design and developed through iterative cycles of "inquiry by design" methodologies and implementing community-based social marketing strategies.

Keywords: whakawhanaungatanga, resilient communities, disaster risk reduction, affective design, storytelling, humour, zombies.

Research Question and Research Aim

How can zombie storytelling demonstrate community resilience to mitigate impacts on vulnerable populations in an emergency?

This research aims to visually explore ways whakawhanaungatanga positively contributes to community disaster resilience through a fictional account of Wellington's Miramar Peninsula during a zombie catastrophe.

Acknowledgements

Shout out to Fergus, for keeping me fed, warm and watered like a noisy houseplant, and allowing me to use your zombified likeness for the pānui front cover.

My supervisors Tanya Marriott and Jason O'Hara for keeping me on the straight and narrow and all your chill expertise when I didn't know how to articulate something.

To my colleagues Claire Hackett, Donald Preston and Tristram Sparks for telling me to regularly suck it up—I needed that.

Kendra Marston, I'm concerned that that big brain of yours that helped me so much would be a delicacy in the zombie apocalypse—watch your back—and thank you for helping me link all this research together.

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Positionality Statement

Ko Paige tāku ingoa, and I am a first-born Kiwi woman with Dutch and English ancestry. I grew up free-range in the Akatarawa Valley of the Wellington region, which was both creatively inspiring and socially isolating. As an adult, I self-identify as neuro-diverse and having lived in a household with compounding social and economic disadvantages, being on the whenua with my imagination was a refuge.

I studied Visual Communication Design in my undergraduate degree, focusing on storytelling through illustration and animation, and have made a career as a freelance Story Artist. I now lecture at the University where I help taura (students) to visualise their own stories.

This research frames the mātauranga Māori principle of whakawhanaungatanga as an approach to nurturing community relationships, and being a pākeha (non-Māori) researcher, I acknowledge the use of this principle to be my *interpretation* rather than a definition.

The use of whakawhanaungatanga in this research project was inspired from reading Christine M. Kenney and Suzanne Phibbs' journal article on community-led initiatives to facilitate emergency management in Christchurch, Aotearoa, with this project aiming to be an extension of the important mahi being done by tangata whenua and fellow researchers.

Definition of terms

This research project is written in the English language and makes use of many te Reo Māori words and place names. Find general definitions relating to their use by the author of this text.

Aotearoa – New Zealand

hapū – a wider kinship group of many families

iwi – an extended kinship group of many families with common ancestry

kaupapa – purpose or initiative

Kiwis – residents of Aotearoa

Māori – the Indigenous people of Aotearoa

manaakitanga – hospitality

mātauranga Māori – Māori knowledge

pānui – newsletter

Pito-one – Petone

Pōneke – Wellington City

rangatahi – young adults

Tāmaki Makaurau – Auckland region of Aotearoa

Te Motu Kairangi – The Miramar Peninsula

Te Tairāwhiti – Gisborne region of Aotearoa

whakawhanaungatanga – the nurturing of relationships, typically wider such as community relationships

whānau – family



Fig. 1. Storm arriving.
Koedijk, Paige. 2024.

Introduction

The Climate Crisis is exacerbating disasters to become deadlier and more destructive across the globe (Calvin et al. 5). In the Pacific, Aotearoa (New Zealand) has experienced this influx of heightened disasters over the last few years in the form of extreme weather events. January and February 2023 saw Aotearoa battling with loss and destruction during two separate tropical cyclones, Hale and Gabrielle, causing flooding across Tāmaki Makaurau (Auckland region), Hawkes Bay and Te Tairāwhiti (Gisborne region). With a single month and little geographical distance between these events, a light was shone on the harsh realities of the impacts of climate accelerated disaster. Households throughout Aotearoa are facing prolonged recoveries due to the frequency of disaster events and increased levels of climate anxiety with this new normal (Laking et al. 159).

Disaster risk reduction is a branch of research concerned with reducing impacts from disasters through public awareness, policy and regional preparation strategies. Disaster risk reduction literature consistently reiterates that community resilience is a key factor in

impact mitigation (Cull 10). The mātauranga Māori principle of whakawhanaungatanga is described as the foundations and relationships that bond our communities, which put very simply, refers to the glue that holds us together (Kenney and Phibbs 54). This principle is distinct from that of social capital (Cull 11), a term often used in disaster risk reduction literature that refers to the networks and resources of a community. Whakawhanaungatanga is the community bond that precludes the usefulness of social capital, as without relationships, there can be no access to the social network.

Regional Civil Defence Emergency Management and other national and local agencies have consistently produced information campaigns primarily pertaining to household preparation. Typically, these involve how-to's that focus on "getting you and your whānau through" disaster events and transition households from awareness to preparedness ("Get Your Household Ready for an Emergency"). Though household preparation continues to be an integral campaign theme, disaster risk reduction literature's recognition

of the critical role that community plays during and after disaster suggests that there is also a need for campaigns that focus on nurturing robust social networks. Some people living alone, single guardians with multiple dependants, elderly, chronically ill, and people with permanent or temporary disability are at risk in an emergency due to potential physical and social limitations (Van Zandt 64). Combining the previously stated with additional stressors from the ballooning cost of living and fluctuating welfare policies (“Coalition Agreement”), vulnerable members of Aotearoa communities are at the highest risk of not recovering from this accelerating rate and effect of disasters (Van Zandt 64). On Wellington’s urban Miramar Peninsula, the localised case study for this research, we can anticipate a disparity in households’ ability to cope with disasters, as there is noticeable variation in social circumstance (“Central Record of State Land”) and physical proximity to hazards (“Flood Zones”).

Some notable social change campaigns in recent years gained virality by communicating emergency information with resonating visuals or sensational narratives. During the COVID-19 pandemic, infographics produced by collaborators Toby Morris and Siouxsie Wiles were seen by millions globally as they revisualised public health measures for non-specialists using human-centred illustrations (Wiles). In 2011, the Centre

for Disease Control and Prevention (CDC) used zombies as a “trojan horse” for their seasonal hurricane campaign. After years of stale emergency information, the CDC’s blog “Preparedness 101: Zombie Apocalypse” went viral on social media using the relevancy of zombies which were saturating media at the time (Kruvand and Silver 43). Using the fantasy and humour of zombies to separate from the uncomfortable reality of *real* disasters, the CDC’s audience could safely imagine how they personally and collectively would respond to the “zombie apocalypse”, which triggered real-world uptake in the audience’s emergency preparedness (Kruvand and Silver 48).

Home to the internationally recognised film-making scene, Pōneke (Wellington) is uniquely primed for absurd paranormal storytelling. Cult-classic films, including zombie splatter-fest *Braindead* and ghost-comedy *The Frighteners*, directed by Peter Jackson of *The Lord of The Rings* trilogy fame, were some of the early productions that gave birth to the weird and wonderful B-horror/humour fan base of Wellington. The pairing of classic horror film tropes with subversive “kiwi-humour” found in many Aotearoa productions has helped form a local audience primed for horrible and humorous storytelling, with comedy show *Wellington Paranormal* being a prime example.

This research explores how whakawhanaungatanga positively impacts community survival and resilience during a disaster through the illustrated fictitious account of Wellington’s Miramar Peninsula in a zombie catastrophe. These explorations frame the construction of a fictional pānui (newsletter) with playfully tongue-in-cheek survival scenarios that utilise kiwi tropes and feature affective illustrations of familiar community characters. The theme of whakawhanaungatanga will be incorporated throughout the pānui, whilst demonstrating social norms for the reader to encourage the development of their own sense of community through the strategy of self-perception theory, outlined by Doug McKenzie-Mohr in his book *Community-Based Social Marketing* (63).

I will expand on the literature and theories underpinning this research—the social impacts of disaster, human-centred visual information campaigns, demonstrating social norms, the power of sensational storytelling and the success of print media—with case studies that influenced the design output sprinkled throughout. I will recount how I developed a design using affective illustrations that demonstrate whakawhanaungatanga through the methodology of Inquiry by Design.

Disaster Risk Reduction

1.1 The New Normal: The Climate Crisis and Accelerated Disaster Trends

The 2023 report published by the Intergovernmental Panel on Climate Change (IPCC) summarises that anthropogenic warming and altered hydrological systems are exacerbating the impacts and severity of disasters (Intergovernmental Panel on Climate Change 5). Naturally occurring environmental events such as tropical cyclones, droughts, and flooding are intensifying, catastrophically impacting all forms of human settlement, which poses particular risk to the lives of vulnerable populations (Intergovernmental Panel on Climate Change 19). In Aotearoa, back-to-back tropical cyclones occurred in January and February 2023. Transpiring within a month of each other, Laking et al. report that these highly destructive (153) and deadly events challenged the affected communities emotionally, physically and spiritually (159). Such events demonstrated to Aotearoa that climate-accelerated disasters seriously threaten the lives and livelihoods of Kiwis.

Te Rākau Whakamarumaru, New Zealand National Emergency Management Agency (NEMA), leads and coordinates emergency management nationwide. Since 2002, NEMA has declared over 100 national and regional states of emergency (“Declared States of Emergency”). NEMA outlines that a declared state of emergency is warranted when there is a need for additional coordination and efforts by management and service agencies to promote public safety during an event.

Recorded emergency trends I charted in Figure 2 suggest that severe weather and flooding events will continue to be the primary incidents affecting Aotearoa.

Declared State of Emergencies Aotearoa 2002 - 2025

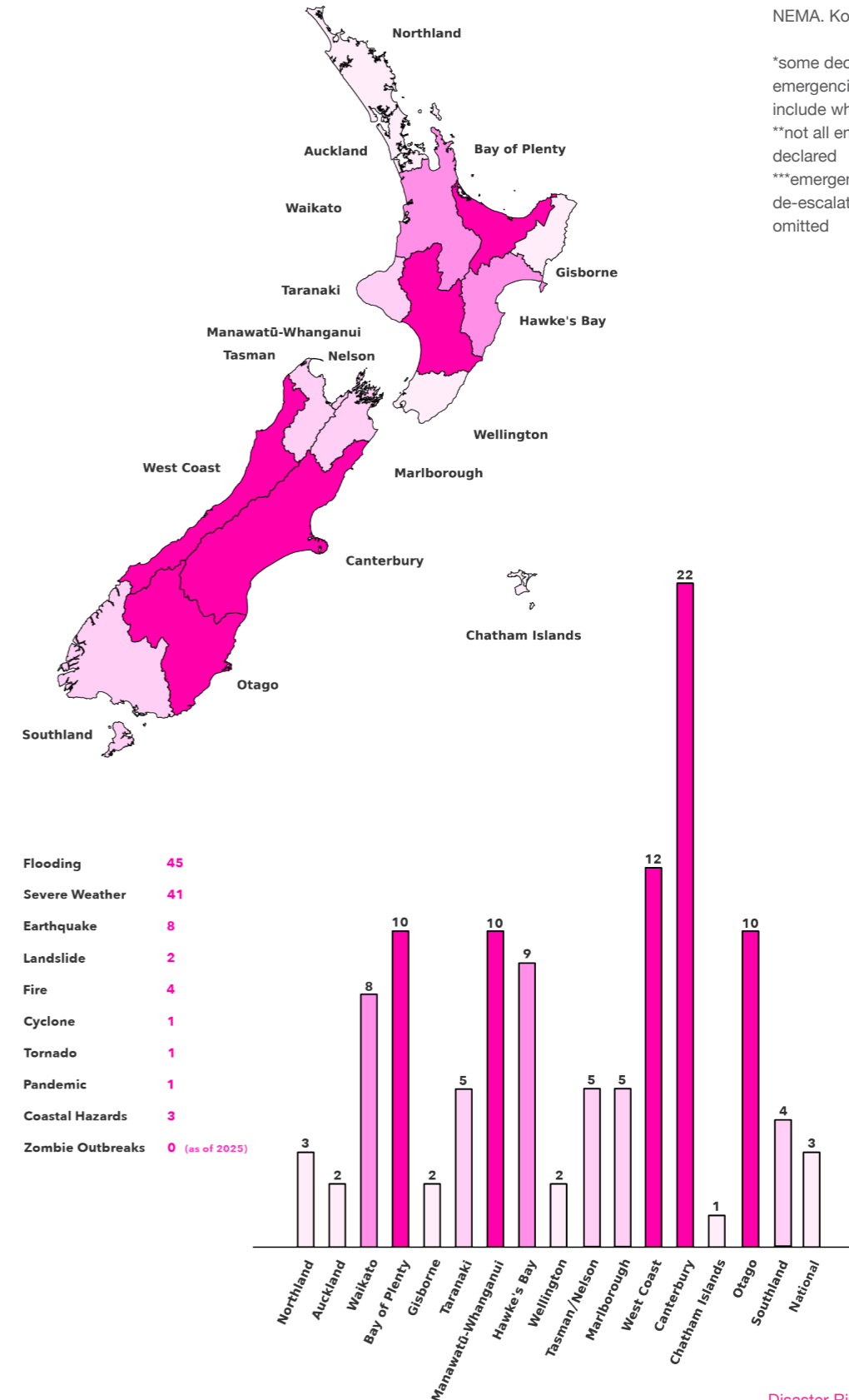


Fig. 2. Declared State of Emergencies Aotearoa summary, 2002–2025, information from NEMA. Koedijk, Paige. 2025.

*some declared local emergencies were upgraded to include whole regions or National
 **not all emergency events get declared
 ***emergencies that were de-escalated promptly are omitted



Fig. 3. The Waikare River Bridge near Putorino collapsed in wild floodwaters caused by Cyclone Gabrielle Tong, Rosie. 2023.

When a State of Emergency is declared for a region, local Civil Defence Emergency Management organisations (CDEM) coordinate the allocation of aid, evacuation and consistent communication. Depending on the characteristics and complexities of the disaster event, Fire and Emergency New Zealand (FENZ) and other local authorities will undertake high-priority tasks throughout the phases of the emergency and rely on communities on the ground to aid in the efforts to prioritise human safety. CDEM aid becomes

impeded when a community is isolated due to the damage caused by the event. Dozens of bridges were lost during cyclone Gabrielle in Hawkes Bay and Te Tairāwhiti necessitating an increased reliance on local community support due to sudden isolation (Laking et al. 150).

Iwi, hapū, whānau and neighbours often have a stronger reputation and ability to provide aid to some Aotearoa communities. In their qualitative study, Laking et al. interviewed members of the communities impacted

by tropical cyclones Hale and Gabrielle. They highlighted a resulting theme from the interviews of “wā kupu tī” or “the power of the cup of tea”. The “simple act of listening”(140), stories of connection, manaakitanga (hospitality and kindness) as well as the community rallying to locate and support “at-risk groups” proved to be crucial methods of “fostering resilience and protecting mental health” (141).

1.2 Vulnerable Populations

As Shannon van Zandt explains in “Impacts on Socially Vulnerable Populations”, “communities are only as strong as their weakest links¹” (63), and that unless all community members are able to withstand then bounce back from disaster, the community is not resilient. Vulnerability to disaster occurs due to “conditions determined by physical, social, economic and environmental factors” (United Nations Office for Disaster Risk Reduction 24). Quoting Van Zandt, “hazards themselves are fairly indiscriminate,” however when hazards “interact with social and ecological systems” they disrupt indiscriminately (78).

¹ Based on the idiom, the term “weakest link”, can be analysed more critically in reference to vulnerable populations here. I think it is inaccurate to imply a person is weak for being vulnerable, rather than disadvantaged by perpetuating social and civic systems.

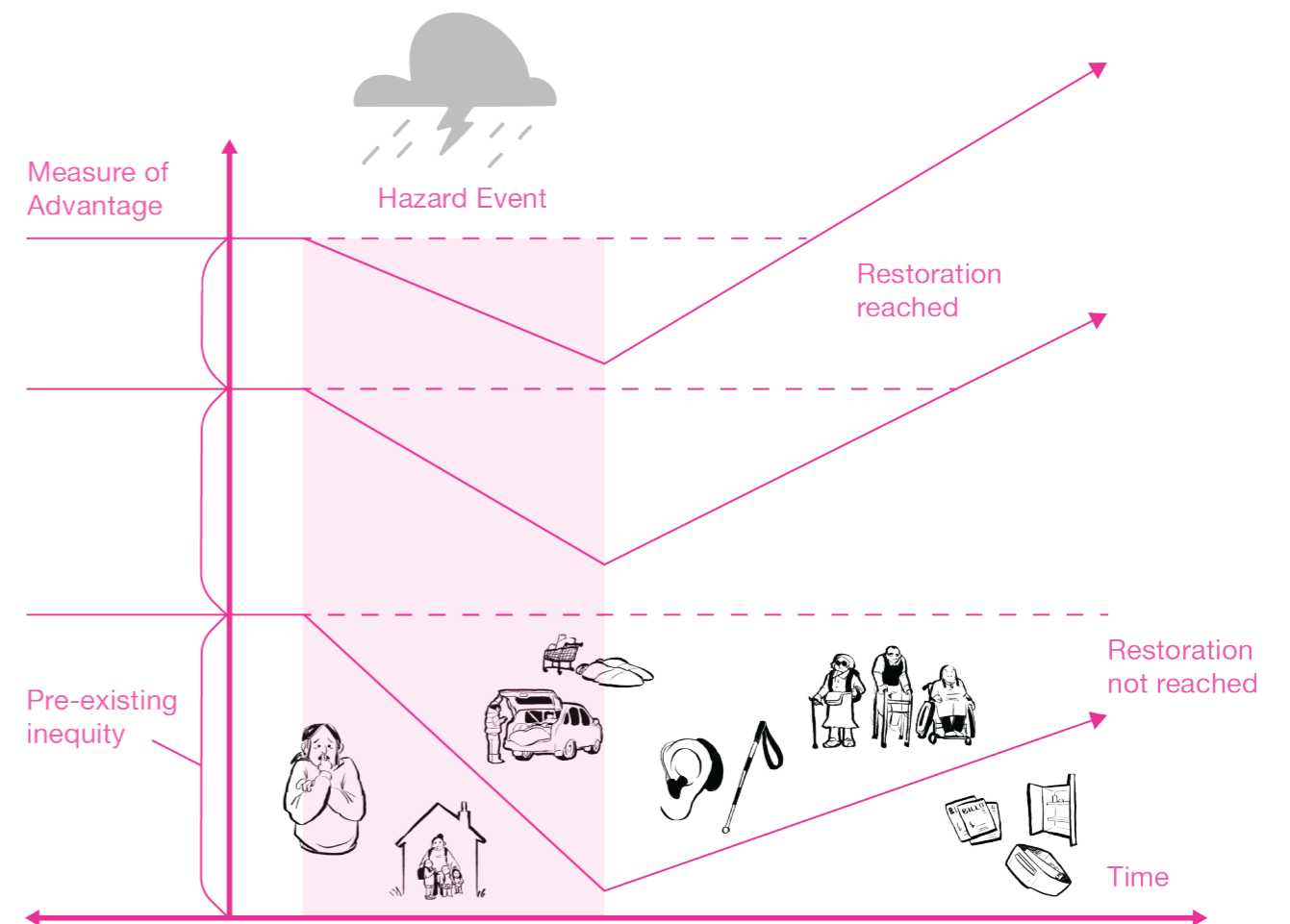
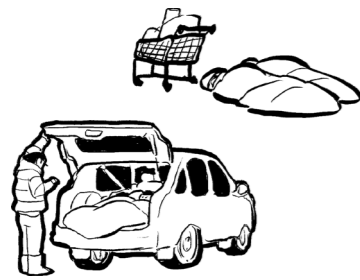


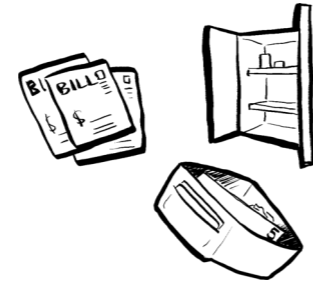
Fig. 4. Conceptual Model of Pre-Existing Inequity Recovery Trajectories, 2025. (Adapted from Van Zandt, 65)



Houseless



Single guardian house-hold
(many and/or high-needs dependants)



Limited finances (basics and emergency resources)



Disabled (mobility)



Disabled (sensory)

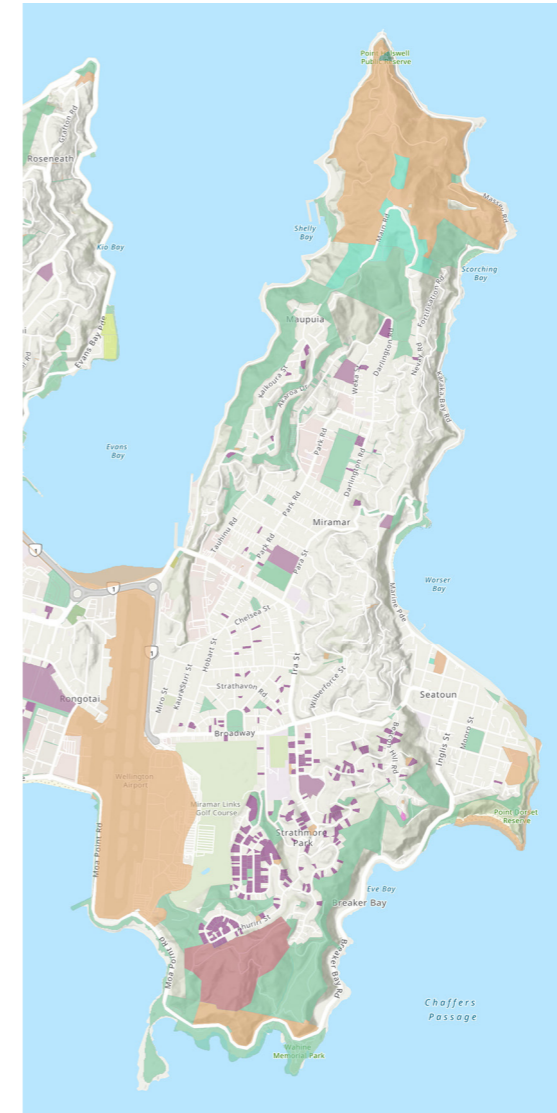


Disabled (psychosocial or neurodevelopmental)

Fig. 5. Vulnerability examples. Koedijk, Paige. 2025.

Vulnerability is not limited to just visible disabilities but also encapsulates socio and economic situations². Woman-headed households with multiple dependents, households with earners working at nighttime, houselessness and individuals in short-term living situations are all vulnerable to a degree. Figure 5 illustrates that vulnerability can be less obvious, such as not knowing the contents of a neighbour's emergency provisions or people with psychosocial or neurodevelopmental conditions ("Disability Types and Descriptions").

² Vulnerability can encapsulate houseless individuals or groups, single parent households (overwhelmingly mothers), households with high needs dependents, households with many dependents, disabled (sensory, age, mobility, temporary injuries, neurological, psychosocial), cognition and memory too ("Disability Types and Descriptions").



On Te Motu Kairangi (the Miramar Peninsula), vulnerable populations may face disproportionate impact from disaster events due to compounding socio-political circumstances that either maintain their inequitable situation or prevent recovery (64). Te Motu Kairangi has a concentration of state housing in Strathmore Park indicating potential vulnerable households and historic predisposition to flooding (see Fig. 6. and Fig. 7).

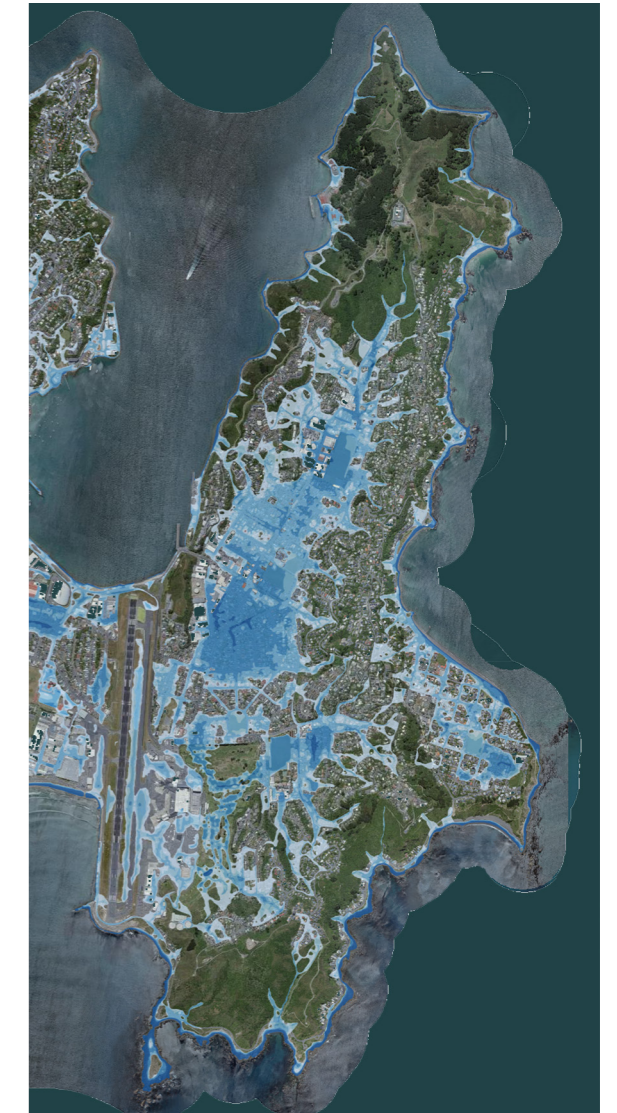


Fig. 6. State Housing in Strathmore Park, Wellington. From: "Central Record of State Land." *Land Information New Zealand*, Eagle Technology, Accessed 25 May 2024.

Fig. 7. Flood Zones on Te Motu Kairangi, Wellington. From: "Flood Zones." Wellington City Council, 2020.

In disaster risk reduction literature, social capital, being the combined networks, relationships and resources within a community (Brett and Oviatt 67) is considered a primary contribution to community resilience. This concept informs the function of the civil defence hubs, which are engaged in response to a state of emergency. The purpose of these hubs is to assess community capital and how it is most advantageously disseminated and allocated. Though social capital is a key concept in reducing hazard impacts, there is work to be done to ensure that people feel a sense of connection to their community before an event in order to access the benefits of social capital.

Some barriers keep social capital from benefiting everyone in a disaster. Vulnerable community members can be restricted in their ability to access the social network throughout the phases of an emergency due to potential restricted mobility, emotional distress, disenfranchisement, a sense of needing independence, and stigma (Laking et

al. 143). Nardia Kearns conducted interviews with chronically ill and disabled individuals living in tsunami-prone Pito-one (Petone) in their research *Stories from a Hazardscape*. These vulnerable interviewees felt they had a layer of protection against emergencies when they were provided for by their community connections and felt supported by whānau and friends (154). Communities have a duty to ensure that vulnerable populations not only feel that they have this layer of protection but that they actually have it³.

³ The recently refurbished Strathmore Community Centre and the Miramar/Mapuia Centre Playground are examples of investing in quality public spaces for the community. The well designed spaces are a draw for all members of the community, and provides access for vulnerable members to amenities, connections, whanaungatanga, support and the opportunity to self-advocate.

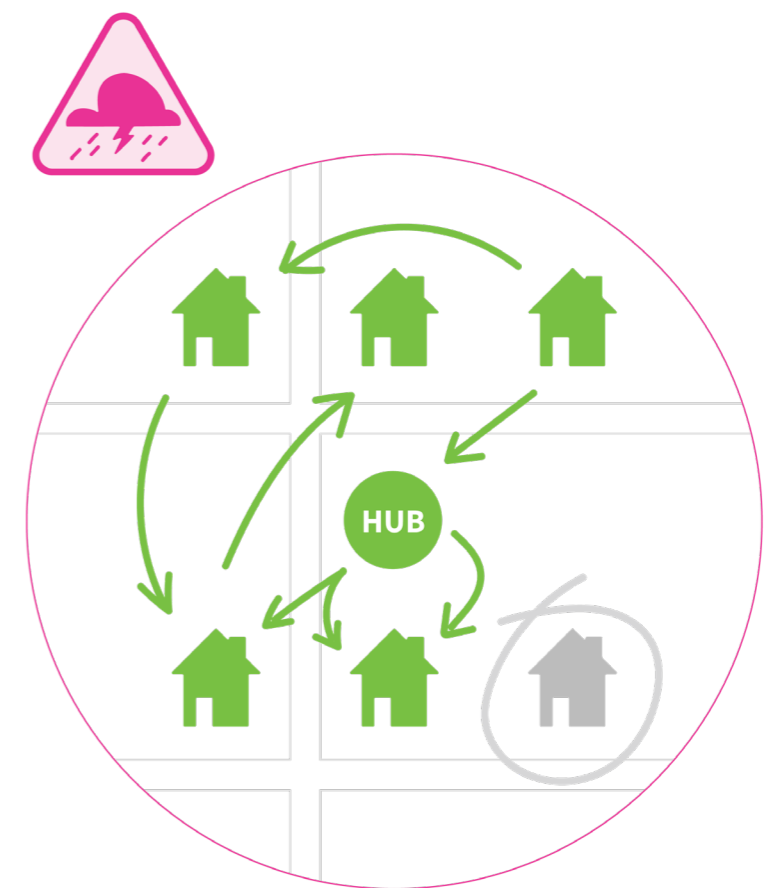


Fig. 8. Social capital example graphic. Koedijk, Paige. 2025.

This simplified graphic is a demonstration of social capital in action during an emergency. A network that most dwellings feel they can access to share resources and information, whereas the circled dwellings represents a vulnerable household who may be restricted from accessing the social network due to social or physical reasons.

1.3 Whakawhanaungatanga: Mitigating Impacts of Disaster

In mātauranga Māori⁴, there is the principle of whakawhanaungatanga, the glue that binds a community together. Whakawhanaungatanga is the sense of belonging to a community and maintaining relationships through manaakitanga, understanding, empathy and willingness (Kenney and Phibbs 54). Whakawhanaungatanga is the pathway that provides access to the social network during disasters for vulnerable populations when civil systems cannot.

In public emergency messaging and campaigning, Aotearoa has released informative, memorable and engaging material that covers the household preparation aspect of disaster risk reduction. Agencies such as *Get Ready* have online how-tos for household preparation and planning for disaster, evacuation and survival (“Get Your Household Ready for an Emergency”). The slogan “Drop, Cover, Hold” is repeated in drills⁵ in workplaces and public schooling (Becker et al. 4) and has become an engrained mantra

for Kiwis in recent decades. CDEM have presence at local community events to bridge gaps in online access and rollout information pertaining to household preparation. However, as disaster risk reduction literature outlines, there is a clear need to address relationships and connections to create resilient communities.

⁴ Māori knowledge

⁵ Since 2012, CDEM have done an annual nationwide ShakeOut event where organisations register their participation to “drop, cover, hold” during a scheduled time. With over 1.3 million registrations in 2015, the drill is a great reminder to keep the slogan fresh in an Earthquake prone land (Becker et al. 2).



Fig. 9. A still from “In a Disaster Will You Be Ready? Have a Prep Talk (60 Seconds).” NZGetReady, 2023, (00:59).



Fig. 10. ShakeOut (2023) banner. From: “Almost Half a Million Signed up with One Month to Go until ShakeOut!”, NEMA, 2023



Fig. 11. Summarising community advantage in aiding vulnerable populations in disaster. Koedijk, Paige, 2025

Resilience is the goal of the ‘4 Rs’ outlined by NEMA—Reduction, Readiness & Response, Recovery—that look to mitigate impacts from disaster through the empowerment, preparation and prevention work done at a community level (“Local and Regional Hazard Risk Reduction”). With a stronger sense of belonging to a community, there is increased motivation to maintain it.

Figure 12 summarises this research’s position in context of broader disaster risk reduction strategies. The design project will explore the principle of whakawhanaungatanga as a key pillar of prevention that sits alongside civil defence. It will be in the form of a community facing document, a pānui, and focus primarily on demonstrating the positive influence and impact of community resilience. The pānui will illustrate how whakawhanaungatanga efforts offered by the community can cushion hazard impacts throughout all the phases of an emergency—not just when the danger is most active. That vulnerable populations can be reached and supported through their community relationships, have access to social capital when an event occurs, and be aided in recovery through sustained access to the social network.

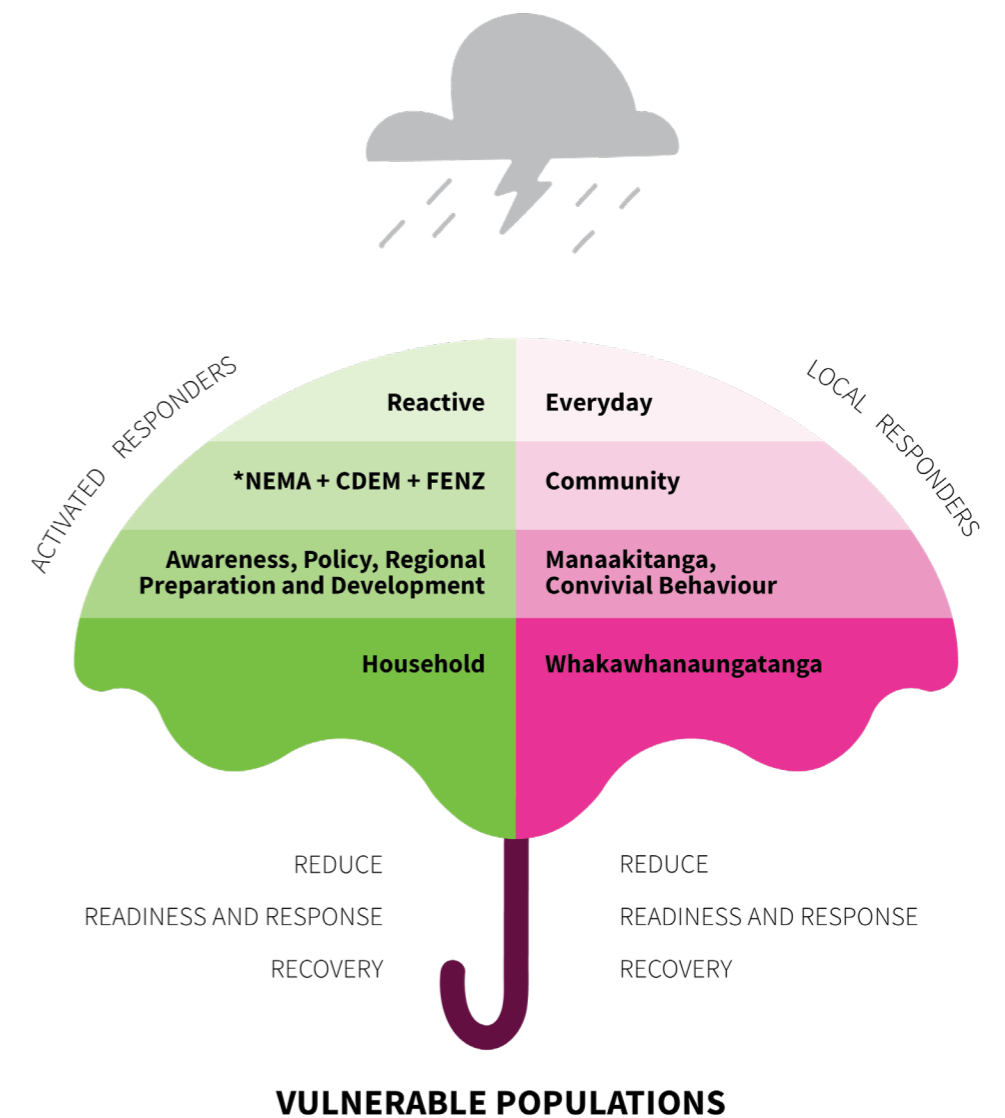


Fig. 12. This research’s position in Aotearoa’s disaster risk reduction strategies. Koedijk, Paige, 2025.

Viral Campaigning

2.1 Social Campaigns: Fact and Fiction

On March 25th 2020 at 11.59pm, Aotearoa entered a nationwide lockdown to stop the spread of COVID-19 (New Zealand History par. 1). As this was a novel situation for the whole country, consistent, direct information was needed to keep the public informed (“Steering global audiences through a sea of COVID-19 confusion” par. 1). Microbiologist Siouxsie Wiles saw important messaging that she thought could be re-visualised in a way that more clearly demonstrated how some scientific concepts worked to non-specialists (Wiles par. 5). Wiles collaborated with illustrator Toby Morris on *Flatten the Curve* which visually unpacks the meaning and reasoning behind spread-preventing public health measures for a wider audience (par. 10). Morris wanted to communicate “the importance of our attitudes and actions in helping deal with the pandemic” (par. 6). Released under a Creative Commons licence for open access, the pair were unprepared for their adapted infographic to find its way to millions of screens around the globe (par. 7). It was shared by massive

media institutions, *Buzzfeed* and *NBC*, while governments translated and adapted the infographic for their own countries (par. 9). The pair got to work over the next few weeks producing even more viral public health infographics, equally as impactful due to the affective human-centred illustrative approach: a diverse cast of characters who resembled real Kiwis, asymmetrical and organic expressions that change in response to human efforts, believable interactions and simple scientific breakdowns to both resonate with and be understood by Kiwis from all walks of life. By maintaining a consistent visual style and communal-responsibility messaging, these infographics made a significant impact and aided in Aotearoa’s combined efforts of whanaungatanga and manaakitanga during an unprecedented time.

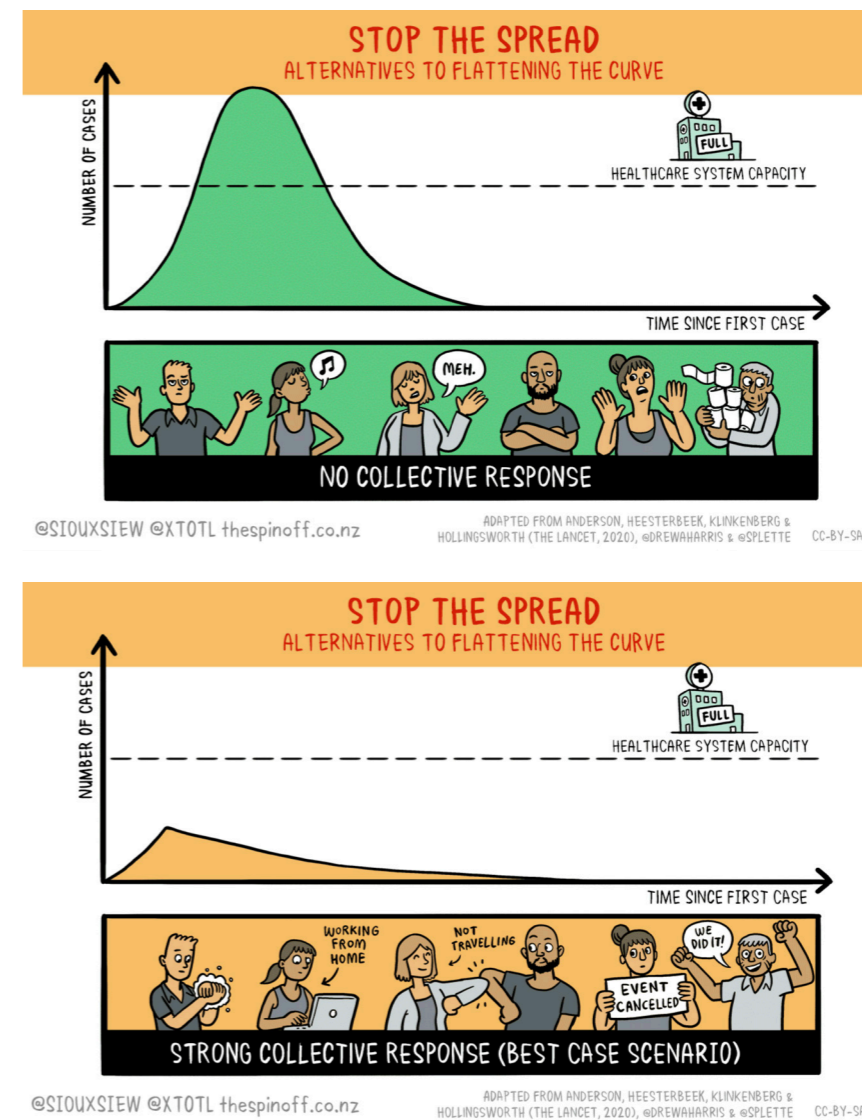


Fig. 13. Wiles, Siouxsie and Morris, Toby. *Stop the Spread: Alternatives to Flattening the Curve*, 2020.

*In 2 parts to demonstrate animation of the original GIF.



“Falsehood flies and the truth comes limping after it,” is a 1710 quote credited to famous literary satirist Jonathan Swift that can apply to the phenomena observed in 1938, USA, on the evening that listeners heard the *War of the Worlds* radio broadcast adapted from the H.G. Wells’ novel of the same name. Due to the original story being forty years old at the time, Orson Welles’s radio adaptation was altered for an American audience accustomed to an inflammatory storytelling style (Schwartz 7). The broadcast began in bulletin-like segments, recounting the harrowing events of an alien invasion terrorising New Jersey. Most audiences tuned in to the radioplay loved the dramatic twist on the original story. However, during a time threatened by war, some stricken members

of the public supposedly grabbed firearms, donned gas masks, and fled their homes, not knowing this was a work of fiction. The following day, news circulated that this was, in fact, a misinterpretation of a science-fiction audio narrative and was a remarkable example of mass hysteria (8). This example of the affected public and their (frankly understandable) panicked response to what they interpreted as a livelihood-ending alien invasion event demonstrates the power of storytelling in activating an audience’s emotional response to disaster.

Fig. 14. Mercury-Theatre-Radio-Rehearsal, PICRYL, 1932.



Fig. 15. Facebook screenshot of promotional post for CDC's 2011 zombie blog. CDC, 2011.

Ahead of the Hurricane season, the US Centre for Disease Control (CDC) puts up household emergency preparation messaging on their blog: have batteries for torches, canned and dried foods and stores of clean water (Kruvand and Silver 35). Year after year, the CDC's "staid, sober, and mainly overlooked" (36) messaging continued with minimal public engagement, while populations remained scarcely, under or unprepared for disaster (38). It is observed in disaster risk reduction research that people demonstrate reluctance in preparing for disasters that have not yet occurred (Veil et. al 450), as dwelling in a preparedness mindset when life is stable and uninterrupted is disconcerting (Kruvand and Silver 38). Another barrier outlined by Kruvand and Silver is that preparation information is perceived by the public as "essential but boring" (53). So with little at stake with engagement, in 2011 the CDC

capitalised on the resurgence of the zombie in the pop culture zeitgeist and presented that year's emergency preparation information through the lens of a zombie apocalypse (39).

On the second day of *Preparedness 101: Zombie Apocalypse* going live, unprecedented site traffic crashed the blog (43). By April 2013, the post generated 4.8 million views, compared with the average 1,000 to 3,000 seen prior to 2011 (48). People were considering what they had at home, at work and in their car to improve survival chances against this fictional zombie threat (48–50). The sensational effect of the zombie lens made the public excited to share, tweet and talk about emergency preparation (44). The fresh "trojan-horse" approach used by the CDC for *Preparedness 101: Zombie Apocalypse* proved the success of reframing disaster risk management with an engaging story.

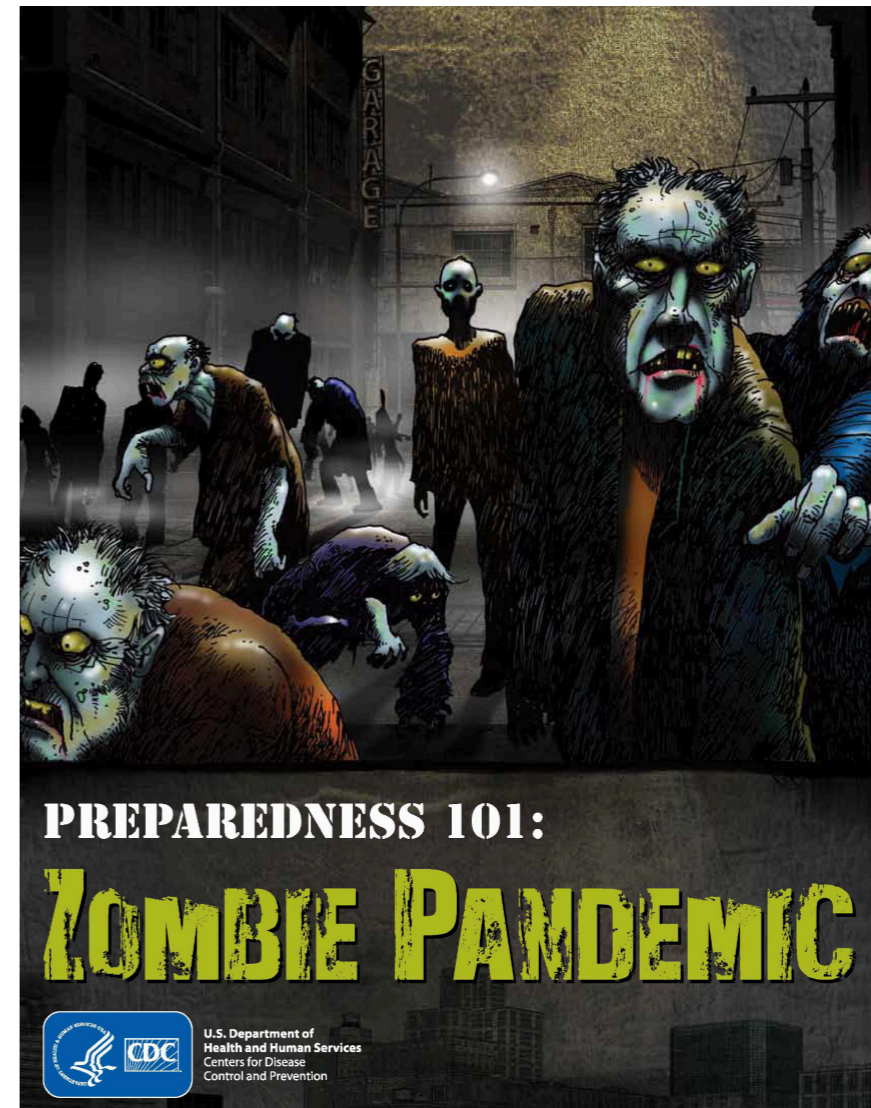


Fig. 16. *Preparedness 101: Zombie Pandemic*. Graphic novella cover. CDC, 2011.



Fig. 17. *Thank you driver.*
From: "This week, to celebrate Bus Driver Appreciation Day."
Metlink, 2023.



Fig. 18. Wellington Kerbside Recycling Bins. From: "It's a Burning Question - What day is Bin Day??"
Wellington - LIVE, 2023.

2.2 Emotion Drives Cognition: Community-Based Social Marketing and Self-Perception Theory

The above case studies' effectiveness resulted from the public's emotional engagement with contextual storytelling. Whether by imagining their own response to a zombie apocalypse, fearing that an alien invasion was upon them or simply seeing the importance of their efforts in a nationwide collaboration event, people were motivated to action, conversation and understanding. The sensational narratives gained audience attention in order to self-contextualise the situation and conclude how they might manifest this in action when needed. Emotionally connecting to an idea to motivate real world response will be the focal aspects of this pānui design.

To motivate the community to foster their whakawhanaungatanga, there must be clear demonstration of engageable behaviour. This can be achieved through social change strategies outlined by Doug McKenzie-Mohr

in *Fostering Sustainable Behaviour: An Introduction to Community-Based Social Marketing*. As someone repeatedly participates in the behavioural norms expected of them, self-perception theory is engaged, where the person comes to recognise that they associate with that specific set of behaviours and their sense of identity and values shift to reflect this⁶ (47). In a disaster management context, this involves encouraging able and advantaged residents to increase their awareness of community needs around them to bridge access not always afforded to the vulnerable, setting expectations for new societal norms (63). By representing the principles of whakawhanaungatanga as social norms, this pānui will become a tool that demonstrates how communities can mitigate social impacts of disaster, with the intention of a shift in a community's self-perception.

⁶ Engagement with social ideals begins with normalisation, *then* habit. When righteous behaviour is demonstrated for the observer it is normalised. The observer is then allowed to or expected to adhere to this social norm.

For example: Morally, we know we need to put the recyclables in the correct bin, then out on the street every fortnight. We're prompted to do this by everyone else on the street having their bright yellow bins lining the footpath. The same could be observed when thanking the bus driver on disembarkment.

We know we should be neighbourly, should lend a hand when we see opportunity, but before we comply with and make a habit of what we should do, we need to first see it become a social norm.

Zombies: Horror, Humanity ... and Humour?

3.1 “Oh, the horror!” History and Application of the Zombie in Media

Zombies are a metaphorical narrative device and are often employed to parallel the fears of a group or era. Rooted to the Haitian *Zombi* origin (Kee 8), the modern zombie monster takes form as a reanimated corpse, cursed to shuffle the Earth in an insatiable hunt for human flesh. The flesh-eating zombie monster became popularised following George A. Romero’s 1968 film *Night of the Living Dead*, which centres on a group of survivors at odds with each other while stranded at a farmhouse surrounded by a ravenous reanimated horde. Though Romero refers to these creatures as ghouls in *Night of the Living Dead*, the term “zombie” became associated with these creatures due to the physical similarities to the Haitian folk *Zombi* (Kee 10).

Romero’s numerous zombie films have been critically examined for their use of metaphor and symbolism, most frequently Romero’s 1978 film *Dawn of the Dead*, set in a mall where zombies return, in death, to mimic the consumerist forces that compelled them in life. Jumping forward to the turn of the century, the 2002 film *28 Days Later* depicts a “raging” infected version of the zombie, thought to parallel the Western fear of the AIDS

epidemic. However, as Kyle Bishop suggests in Ashley Knox’s article, “Resurrecting the Humanity of the Undead: Humanism and Posthumanism in Zombie Films” this depiction could easily have been associated with general growing fears prevalent in the 1990s and early 00s towards infectious diseases (qtd. in Knox 7). Bishop continues by stating that the “end of the world is the ultimate societal fear” (8), which is observable in the post-9/11 boom of not just the zombie genre but the disaster genre too, revealing that fear makes for profitable filmmaking. The sheer volume of post-9/11 media featuring zombies, paired with a rabid fanbase seeking cheap thrills during an era of finger-pointing civil tension, solidified the flesh-eating zombie’s place in the pop-culture zeitgeist.



Fig. 19. Kate Winslet in *Contagion*. Screenshot from: *Contagion*, Directed by Steven Soderbergh, Warner Bros. Pictures, 2011.

3.2 Engaging with Disaster through Fiction

Fictional narratives could provide a safe vehicle for audiences to engage with their fears surrounding increasing disaster events. The high viewership of live-action media that dramatise real historical disasters such as the Boxing Day Tsunami in *The Impossible* or, more recently, Netflix’s many historical or theoretical dramatisations including *High Water*, *The Days*, and *La Palma*, could imply an audience desire to better understand disasters and contemplate, from the safety of their couch, how they might navigate them, particularly in an era where populations feel helpless in a climate emergency.

With the 2011 film *Contagion*, audiences became privy to accurate depictions of scientific procedures in response to a highly

deadly global pandemic (Jabr). *Contagion* had commercial success during initial release but found notoriety once available on streaming platforms during COVID-19 lockdowns. January 2020 saw the film surge in viewership due to the significant parallels to the audience’s current pandemic experiences (Clarke). Audiences’ feverish demand to understand the pandemic was observed in this rise in viewership of a decade-old narrative which was eerily similar to the real unfolding of COVID-19. Information through a fictional lens is an in-demand format for the population to come to grips with real-world scenarios.

3.3 Zombie Stories are Human Stories

Because of the metaphorical function of zombies as a narrative device, in disaster stories they can act as a placeholder for any type of social collapse event. “The zombies, they could be anything,” George A. Romero told the Associated Press in 2008. “They could be an avalanche, they could be a hurricane” (Coyle par. 5), and in his interview with *Vanity Fair*, Romero states, “My stories are about humans and how they react, or fail to react, or react stupidly” (Spitznagel par. 5). What Romero means here is that zombie

stories are human stories. Human responses to societal collapse, loss of a governing body, loss of control and social balance. Zombies could be replaced with any natural, human-accelerated or human-driven disaster as they are a fictional placeholder for the disruption of typical day-to-day life. For the fictional pānui, the ambling zombie is simply a placeholder of a hazardous force, so the reader can observe how the Peninsulaites will respond, allowing the reader to contemplate their own community’s reaction.

3.4 For laughs: Wellington's Contemporary Paranormal Heritage

There is a small but mighty screen production scene in Aotearoa that is both a local source of pride and a steady producer of internationally recognised “weird and wonderful” productions. *Flight of the Conchords* sidled up to the American television landscape and carved a place for itself through subversive “kiwi-humour” and flat, monotone delivery of dialogue. The halting performance style was broadly appealing when paired with ridiculous character plotlines. A line-up of other screen productions with the same markedly Kiwi storytelling style has contributed to the country's contemporary heritage. Local favourites *Black Sheep*, *What We Do In The Shadows*, *Housebound* and *Creamerie* play with the B-horror/humour genre, popular with local audiences, which began with the cult classics *Braindead*, a zombie splatter-comedy film and *The Frighteners*, a ghost comedy, both directed by Peter Jackson.

The recent *Wellington Paranormal* TV production follows police duo protagonists O'Leary and Minogue as they amble across the Wellington region in response to odd callouts, finding themselves caught up in residential paranormal hijinks and navigating

mundane bureaucracy. As a spin-off show set in the same world as the successful dead-pan mockumentary *What We Do In The Shadows*, *Wellington Paranormal* places itself almost as a regionally specific in-joke which capitalises on a pre-existing B-horror/humour fan base and caters to Wellingtonians' sense of identity by showcasing over 100 regional filming locations (“Wellington Paranormal' Transforms the Capital” par. 3). O'Leary and Minogue have popped up in-character as ambassadors for social change in speed-reduction campaigning that creatively blends quirky B-horror/humour storytelling with serious real-world scenarios. These campaigns were made successful through commodifying the humour and irony established by the show to persuade campaign viewers (Harrington 89). With Wellington having an established endearment to horror/humour storytelling, emergency management information with a zombie narrative will fit in nicely.



Fig. 20. Partygoers in distress. From *BrainDead*. Directed by Peter Jackson, Trimark Pictures, 1992.



Fig. 21. O'Leary and Minogue taking selfie with a creature. *Wellington Paranormal*, 2018–2022.

Print Media

4.1 Print Media and the Zine

In David Jury's book *Reinventing Print: Technology and Craft in Typography* he writes about printed materials' ability to be brought "into the lives of ordinary people more effectively than any other media" (70), as printed material offers broad access and the potential for greater personal meaning.

Regarding accessibility, as outlined by Marianne Elliot in their research for *InternetNZ* on digital inclusivity in Aotearoa, not all Kiwis have access to digital devices or the requisite digital literacy to engage with information offered online (19). Additionally, there are still people with preference to paper copies of bills and receipts, reading the newspaper and having physical copies of books. Positively, many online sources of information offer other forms of accessibility such as translation tools, but information that comes in multiple formats to meet accessibility preferences is still in demand (51). The Government, not for profits and commercial businesses send out information to the general populace via mailers. Commercial mailers are considered physical 'push media', a marketing term referring to media and advertisements that are delivered

straight to or *pushed* to the user, which gives substance to letterboxes being an effective method for access and reach.

In regards to offering greater personal meaning, we can think about the tangible and temporal nature of printed materials. Prefaced in *Inside magazines: independent pop culture magazines*, Joseph Monteyne writes about the sensual aspect of the printed object found "lacking in electronic magazines" (7). As a *tangible* object, print requires focus of the senses; typically engaging one's hands, eyes and imagination, "you can smell the ink, the design has a weight, a body, it appeals to the senses as well as the intellect" (7). As a *temporal* object, print media occupies one's time and attention. These captive conditions allow for a more immersive experience to take in information.

Additionally, varying methods of personalisation can transform print material to imbue it with significance for the user. Modifications vary depending on the context of the artifact, from practical and quick to meaningful and considered. Practically this can look like

signing ownership in the jacket of a book, scribbling on a document and affixing to the refrigerator, and folding or tearing it to adjust to user preference. More considered personalisation might involve adding daily notes or filling in checklist details, or even explorative journaling such as with Keri Smith's series of books⁷ designed to be personalised.

Fig. 22. Wentworth, C.B.
Page from personal copy of
Wreck This Journal. From
"Wreck This Journal: Letting
Go." 2011.

⁷ *Wreck this Journal* (2007) is a book designed and illustrated by Keri Smith that challenges the owner to disrupt the common ways one journals. There are scrapbooking moments such as sticking found objects to the page, all the way to the outrageous dares to use your tongue as a drawing implement after eating colourful lollies. Keri Smith's many books follow a similar rule-breaking style, allowing for the user to fully, daringly personalise, and to engage all of the senses.



Social media makes sharing so easy that it has become a proverbial onslaught to the senses whenever one logs on. Recent years have seen a global rise in hours spent online, which the 2025 study commissioned by *InternetNZ* verifies with over 50% of respondents claiming to spend over 4 hours on social media platforms a day (Sergent-Shadbolt par. 1). Users are subjected to hours of content in short format clips or headlines, making the shared media feel constant and fleeting rather than arresting and memorable. Printed material's tangible qualities expressed earlier may result in a lower and slower rate of shareability compared to the widespread sharing potential that digital media can achieve, though it is arguably a more meaningful one-on-one transaction. Alison Piepmeier writes in "Why Zines Matter: Materiality and the Creation of Embodied Community" about the printed zine having the ability to combat the hours spent online by reconnecting the reader back to their body but also "to other human beings" (214). By a user loaning or sharing tangible media that has impacted them, such as a zine, the user wishes to extend their tangible experience to another, compelled by a very human want of cultural connectivity.

In Pōneke, with its high ratio of politically liberal residents, many people are eager to avoid mega corporations and instead embrace second-hand or preloved artifacts—

a sensibility that has spread in a post-COVID-19 climate to the point that it has become a mainstream attitude. Wellingtonians' are charmed by grounded, second-hand and retro style stores, which we can appraise through the popularity of quirky Cuba Street and Newtown⁸, and the still standing AroVideo⁹. Residents generally have a cultural leaning towards Humanities and the Arts, as profiled by the majors offered at the two local Universities, thus appreciating off-beat, slower made print media such as artist books or zines. Summarising Jury, zines have historically been an undercurrent document, and are resource friendly, endearing for their crude, distinctly hurried appearance (61). There has been a resurgence in zine culture as an outlet for creative rangatahi during a time of unsustainable global spiralling, with creators and collectives contributing to local zine markets. Auckland Library runs the *Zine-o-Mat*, a vending machine that showcases zines primarily created by marginalised, queer and BIPOC creatives (Fae).

Considering all of the positive qualities for "on-the-fly" print media that enable these artifacts to reach ordinary people, mailers could be an effective vehicle for disaster risk reduction information that generates connection through a tangible storytelling experience.

⁸ Shopping districts in Wellington known for their alternative consumer base.

⁹ A store in the Wellington suburb of Aro Valley that still rents DVDs.



Fig. 23. Fae, Erin. *Zine-o-Mat*. 2018.



4.2 Pānui

For Kiwis, the local pānui¹⁰ is a familiar document that promotes whakawhanaungatanga with community specific updates and notices, local promotions, events and invitations, and stories. Leveraging the familiarity of the local newsletter, this research will use a *fictional* pānui to reach the public and thematically promote whakawhanaungatanga¹¹ by referencing newsletter tropes, citizens and locations.

Fig. 24. Multiple issues of Pānui Te Motu Kairangi. 2020–2023.

¹⁰ Newsletter.

¹¹ My household would receive Pānui Te Motu Kairangi every quarter shortly after moving to the neighbourhood. This pānui was our link to joining in on community events that we otherwise wouldn't have clocked. The newsletter was a collaboration between the 3 local community centres and 50,000 copies would be hand delivered to letterboxes around the peninsula. It ran from 2020–2023, before unfortunately discontinuing due to funding costs (“Pānui Te Motu Kairangi”).

4.3 Playful Visuals and Illustration Precedents

As Johanna Drucker expresses in her chapter on the democratic nature of an 'Artist's Book' in *The Century of Artists' Books*, printed material has inherent "potential to stretch from the sublime to the ridiculous, the ordinary to the unusual, the inconspicuously neutral to the absolutely outrageous" (70). I interpret Drucker's meaning for this fictional pānui design as having freedom in both visuals and formatting, which will offer Kiwis an angle not yet utilised for local disaster reduction strategies.

In a similar manner to how Drucker describes flexibility within the artist book, illustration as a visual communication method allows for unconstrained manifestations of ideas. Illustrated elements can be manipulated to have a more sensational quality and stylised to achieve a synthesis of ideas. By using stylised illustration, a barrier will be formed between the absurdity of the story and the sensitive parallels this fictional catastrophe draws from real disasters.

Though a fully illustrated community newsletter will not *totally* resemble a pānui, perhaps appearing more like a zine, the illustrations'

contextual referencing of the local community will keep the pānui grounded in a recognisable reality. The use of familiar locations, people and interactions, will aid the reader in linking their own memories and experiences to the fictional situation, thus forming a deeper connection. To use illustrator Toby Morris as an example once more, *People Watching*, commissioned and featured by *Sunday Magazine*, is an observational series where he captures the likenesses of everyday Wellingtonians with a brief quote or description of their activities or thoughts in that moment ("People Watching on Cuba Street").

These candid style sketches might not be of people we know personally, however there is a rewarding flash of recognition as these people are familiar through their resonating characteristics. Morris' rendering style is particularly soft in shape language, rounded and friendly to reflect the convivial experience of this series and the people in it. This can be contrasted with Sam Moore's (*Ugly Ink*) 2019 collection, *People of New Zealand*, which went viral on social media channels due to its satirical caricatures of Kiwis (see fig. 27).



Fig. 25. Morris, Toby. *People Watching*. 2024.



Fig. 26. Morris, Toby. *People Watching* feature for the *Sunday Star Times*. 2024.

Generally, the public found much joy in indulging in the comically charming and uniquely observant summaries of personality and style tropes, with a small percentage getting “offended” by the stereotyping, says Moore (“People of New Zealand Artist Sam Moore”). Moore’s distinct illustration style contributed to the success of the satirical series, with a more informal and textured artstyle and a focus on highlighting specific storytelling details such as smeared make-up, caked mud or communicating odours—typically unflattering characteristics that served the tone of the artwork. Triggering emotional responses is the name of the game with illustration.

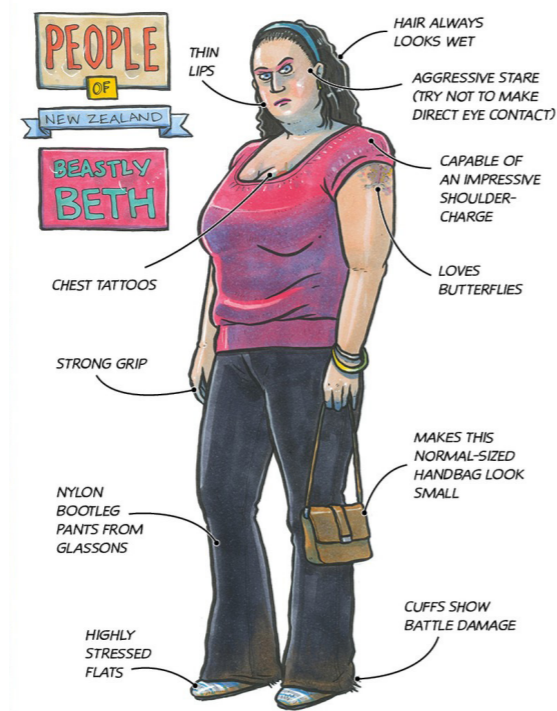


Fig. 27. Moore, Sam. Beastly Beth. 2019.



Fig. 28. Guthier, Max. Article image for *The Baffler*. 2021.

For the pānui’s visual treatment, I have primarily taken inspiration from a few editorial precedents for their experimental and humorous qualities.

Max Guthier is a Berlin based designer and illustrator who orchestrates detail rich 3D scenes for editorial covers. Guthier makes use of stiff, isometric perspectives, creating an awkwardness for the viewer that echoes the feeling of witnessing people’s interactions unknowingly or curiously observing a human study. Guthier prioritises a “vantage-point” style that focuses on capturing the essence of human behaviour, an effect I aim to emulate in the pānui illustrations by using instances of isometric perspective.

The 2011 PC game, *Portal 2* is a science fiction puzzle game set in a dystopian laboratory. As the player advances through the game, they encounter diabolical signage and posters designed for the long-deceased fictional workers. Snappy, slapstick, and jovially ridiculous, the many posters make light of the fragile human body, the oppression of workers with threats of robot take-over, and poke fun at workplace policies. These posters are a major source of inspiration for the humorous writing and illustrations for the editorial spreads of the pānui.



Fig. 29. In-game poster from *Portal 2*. 2011.

Ray Gun magazine did not cover the subject of graphic design, yet each issue's distinctly fresh visuals made the magazine a pillar of inspiration for modern typography. Founded in 1992, art director David Carson was the experimental graphic designer behind the magazine's grunge aesthetics ("Ray Gun"). The scrappy textures and hurried assembly look is a good aesthetic treatment for the pānui to feel as if it were made using limited resources—it will be made by journalists during the apocalypse after all!

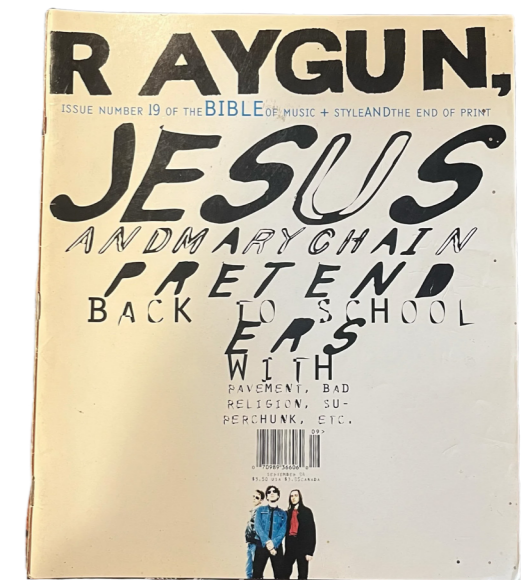


Fig. 30. Carson, David. Cover for Issue #19 of *Ray Gun* Magazine, 1994.

Methodology and Methods

This research employed a methodology based on “The Brain’s Creative Development Spiral” described by John Zeisel in *Inquiry by Design*, where design and research are parallel processes. Inspired by the human brain’s circuitry, Inquiry by Design is a problem solving methodology that creatively ‘makes sense’ of a series of contexts to output an acceptable action (Zeisel 152).

Zeisel’s ‘imaging’, ‘presenting’, ‘testing’, ‘reimaging’ cycle (151) needed to be altered to suit this research’s illustrated format, so I reframed¹² the cycle as: ‘sketch’, ‘measure’, ‘discuss’, ‘revise’. These looping phases allowed me to critically explore the gap I had identified in Aotearoa’s disaster reduction information.

Fig. 31. the tangle methodology process. Koedijk, Paige. 2025.

¹² Observe, reflex, test, visit, immerse, get lost in the sauce, evaluate, present and argue, feedback, reflect, revise, revisit, backtrack, scrap, converse, REPEAT!

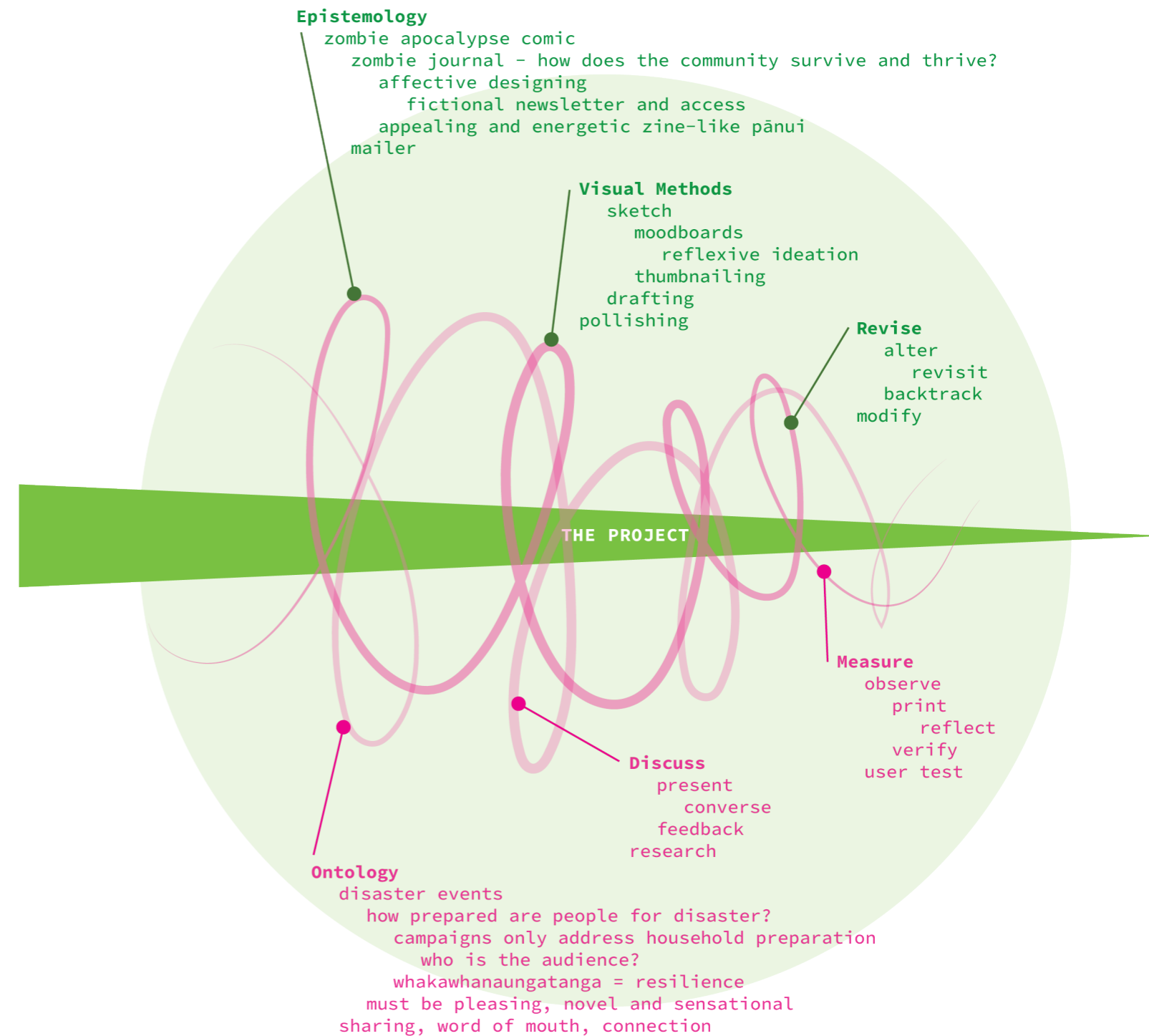




Fig. 32. Picture of my workspace. Koedijk, Paige. 2025.

The various methods and steps taken to develop this design output included:

Affectively considered illustrations

In order for the reader to recognise the visual depiction of whakawhangaungatanga and generate an emotional connection, I developed the illustrations through affective considerations and methods as outlined:

- Generation of moodboards to inform the playful visual direction.
- Photography and live sketching around Te Motu Kairangi to develop location, story and character studies to generate a feeling of familiarity for the reader.
- Strategising affective character design that addresses diversity needs through the writing of character briefs and iterative character sketches.
- Tandem spread thumbnailing to develop a consistent, stylised impression of Te Motu Kairangi and its residents and to orchestrate narrative tension and flow through isometric and contrasting compositions.
- Exploring apocalyptic impact through colour and texture using gradient mapping and adjustment layers in Adobe Photoshop.

Iterative Printing

Regular printing of the design prototypes to test and discuss the viability of the product in its intended mode.

Digital Workbook

The use of a miro board to act as a digital workbook to host all developmental design work.

User testing

Through both informal peer and mentor feedback and a formal user survey from a convenience sample of local community members (see appendix).

The Peninsula

5.1 Exploration

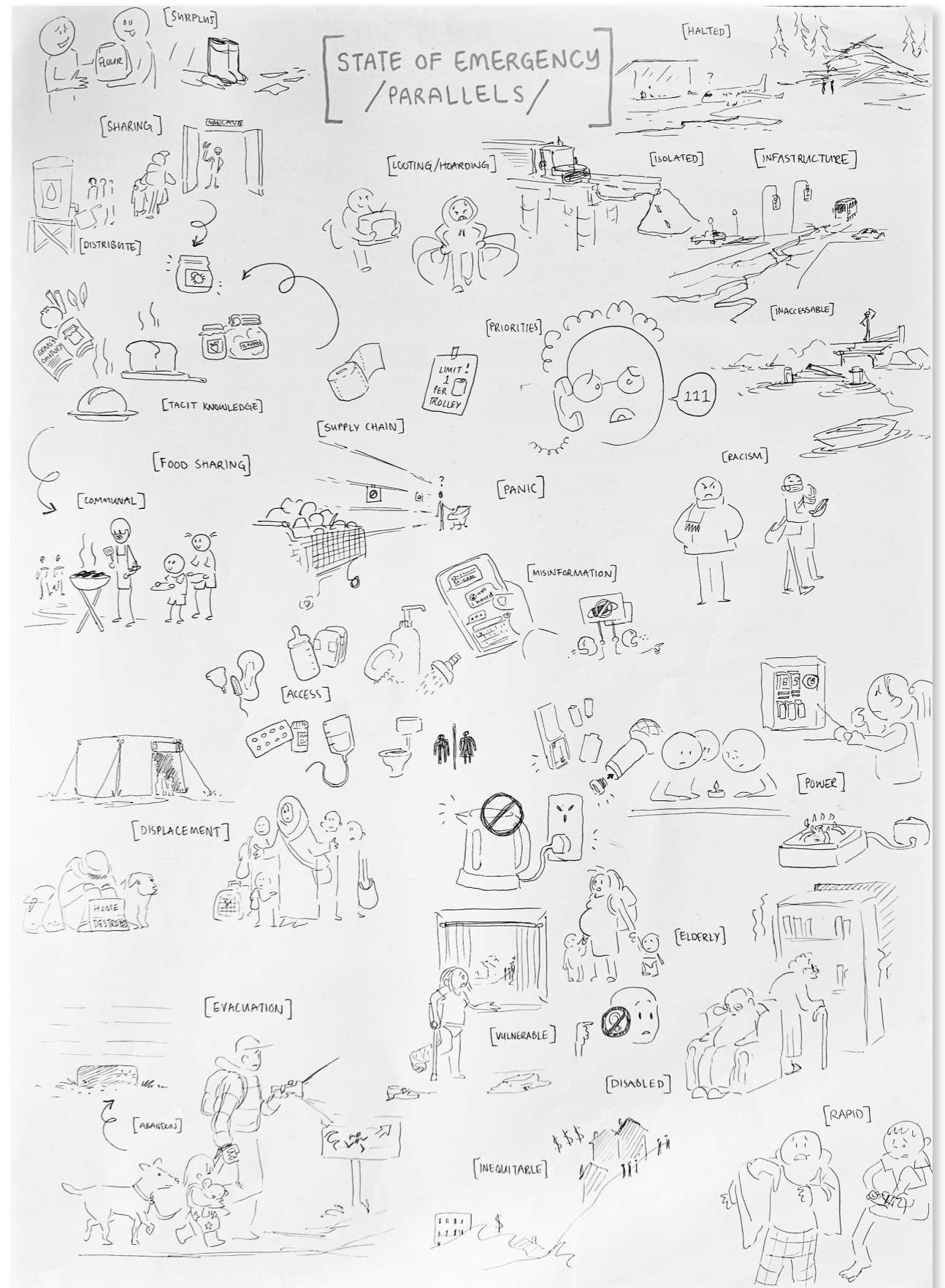
The very first designs ideated for this research project were sketches inspired by observed responses to the COVID-19 pandemic and other states of emergency in Aotearoa. I sketched the confusion, the new routines, vulnerabilities, people spreading manaakitanga through sharing or providing, plus hazard, survival and evacuation imagery (figure 33). This collection generated ideas that could be articulated in both the research and the pānui design of the potential impacts and vulnerabilities from emergencies.

Before the output of this research was decided as a pānui, I started out designing a semi-interactive journal. The idea for the journal was to encourage local readers to venture out into the Miramar Peninsula to become familiar with any surrounding hazards and identify potential community resources. Though by continuing to examine this field

of research, the demand for resilient communities looking out for all community members, rather than household preparation, became apparent.

The original format and story of *The Peninsula* was still focused on the positive force of whakawhanaungatanga in response to disaster, full of sequences and interviews of fictional community members and the overall systems that have afforded the community relative safety. The fictional interactions were intended to encourage the extending of a household's range of support, and establish relationships with vulnerable members.

Fig. 33. Interactions inspired by COVID-19. Koedijk, Paige. 2023.



Ideating through character archetypes

Mapping out the story moments and the characters of *The Peninsula* was a result of my observations as a resident of Te Motu Kairangi for over 5 years. As a 'story artist', I aim to observe happenings and exchanges around me and reimagine them in other works. When in cafes or stores, walking along Evans Bay, or swimming out at Scorching Bay, I often jot down notes on my phone when witnessing an interaction I could visualise as a story. Local shop owners, my own neighbours, the birds sitting up on the light posts, all featured in the narrative in some inspired form or likeness.

As my stories often centre on characters, exploration through character design was a natural next step for me. Rooting around in my imagination bank, I fished out a few character designs that helped set the tone for the rest of *The Peninsula*, such as a character who would run the community gardens in figure 34.—which were, coincidentally, inspired by the shapes of various vegetables.

Fig. 34. Community garden character explorations.
Koedijk, Paige. 2024.



Ordinary members of society, such as scary teenagers, enthusiastic cyclists and community elders formed the basis for characters that ended up in *The Peninsula*. The “Netbawlers” in figure 35. and “Runners” in figure 36. are inspired by the torrent of weekend go-getters that pass me at great speeds along Evans Bay, full of stamina and in pursuit of peak health. These archetypes became the characters that volunteer to venture into zombie infested Pōneke to secure resources and goods for the community.

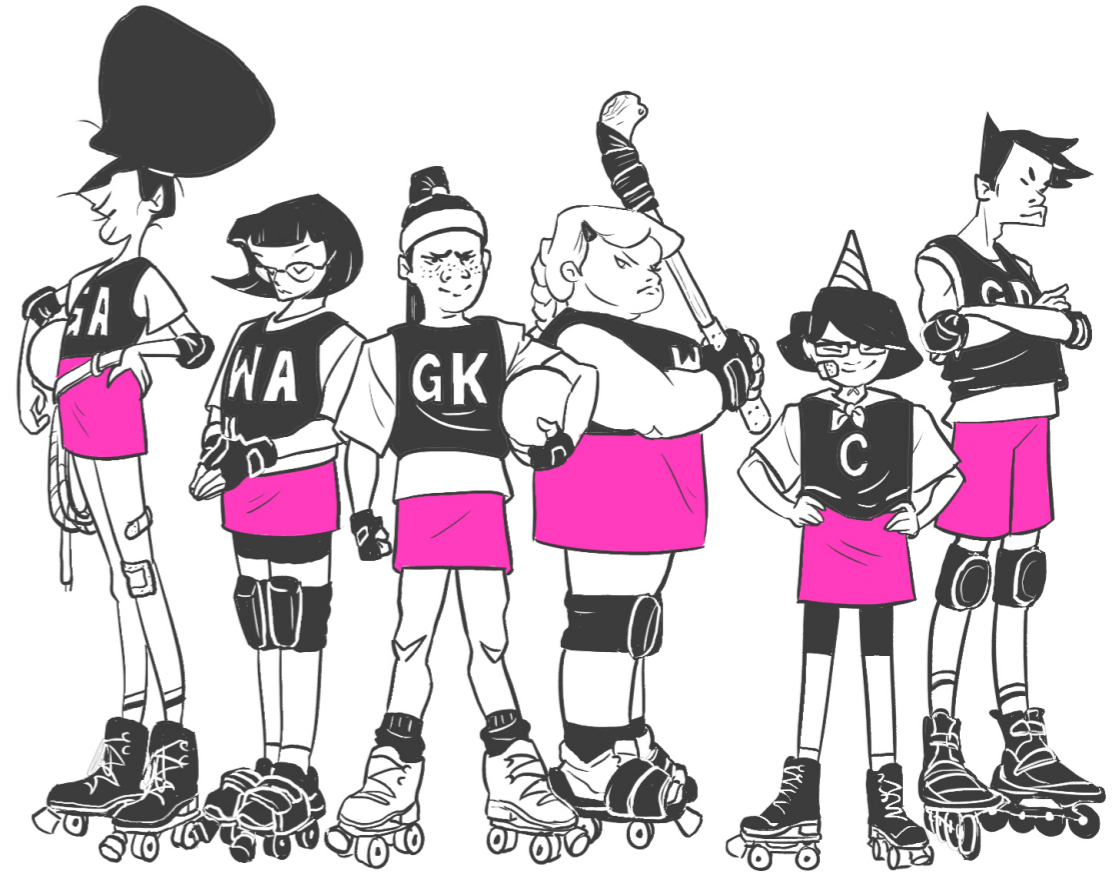


Fig. 35. *Netbawlers.*
Character experiment.
Koedijk, Paige. 2025.



Fig. 36. *Runners.*
Koedijk, Paige. 2025.

Elders, with their wisdom and tacit knowledge, became the backbone of community initiatives and were the natural leaders the community could look to in a time of social disruption. There are also high chances of vulnerability in elderly members, so highlighting their foundational role in the community through representation in this pānui was important¹³.

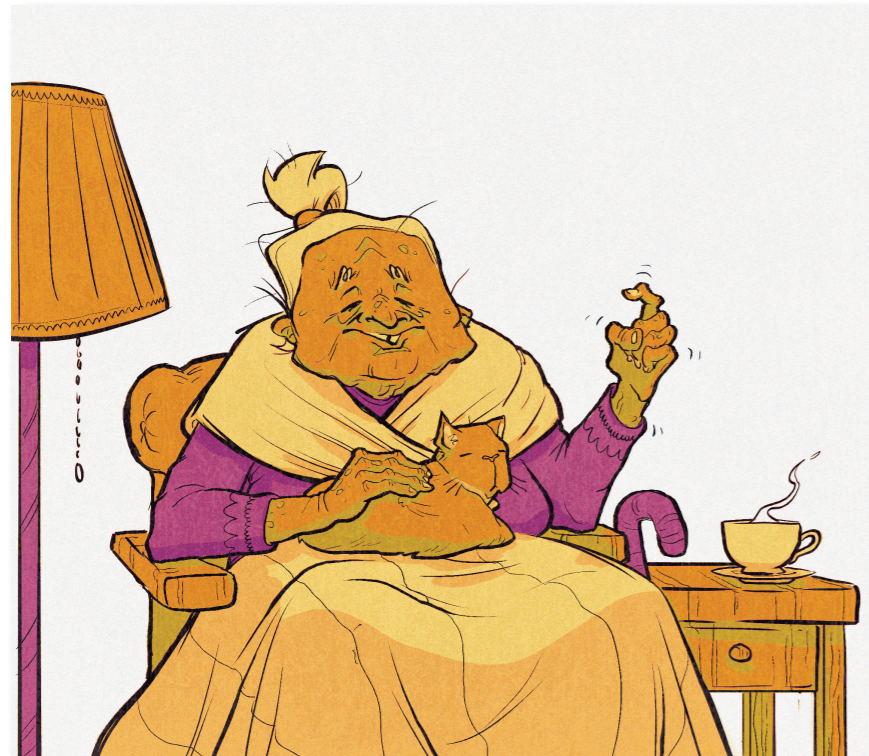


Fig. 37. *Kaumatua Isa.*
Koedijk, Paige. 2025.

¹³ Kaumatua Isa (a leader of the community) and her partner Lou were living in Lyall Bay when the zombie reckoning happened. Their neighbour Michael both kept them up to date on evacuation plans and escorted them out of danger. This is one example of the parallels that demonstrate the positive influence of community during the phases of disaster.



Fig. 38. *Kaumatua Isa and Lou illustration strip.*
Koedijk, Paige. 2025.



World Building: writing and sketching

Immersing readers in the disaster scenario required the fleshing out¹⁴ of the world, specifically Wellington as shown in figure 39. A storytelling term, ‘worldbuilding’ is the construction of parameters that help define the limits of the story. Where the story is set— who is involved and why—are supported through worldbuilding. I had to consider what kind of zombies the community was dealing with (fast, slow, vicious?), how messed up by the catastrophe is Wellington anyway? What’s the tone, how is everyone feeling? To demonstrate these questions and more, I needed to illustrate more than just characters, but places they went and their experiences.

¹⁴ Pun intended.

Fig. 39. Pōneke overrun thumbnails. Koedijk, Paige. 2024–2025.



Fig. 40. *The Peninsula*,
Pōneke overrun.
Koedijk, Paige. 2025.

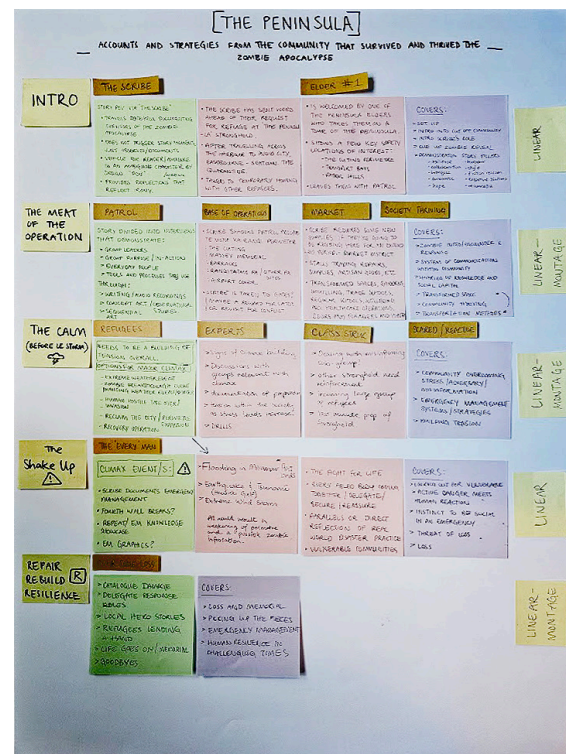


Fig. 41. Narrative plan for *The Peninsula*. Koedijk, Paige. 2024.

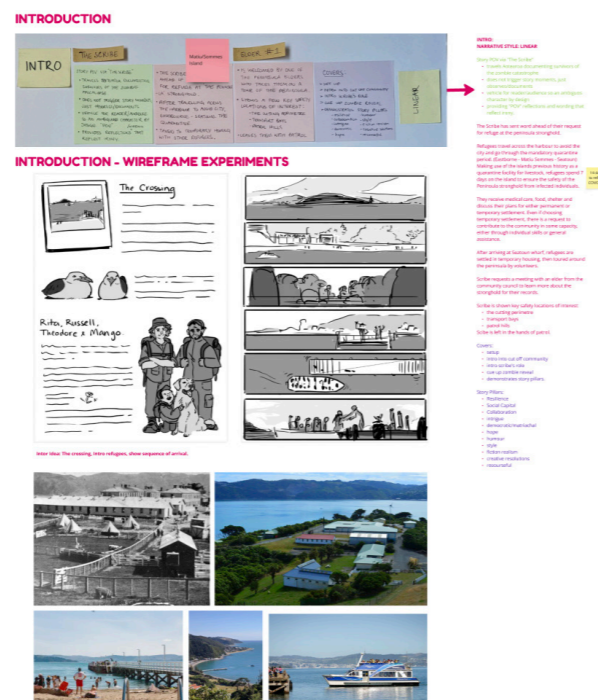


Fig. 42. Early wireframing and planning of *The Peninsula*. Koedijk, Paige. 2024.

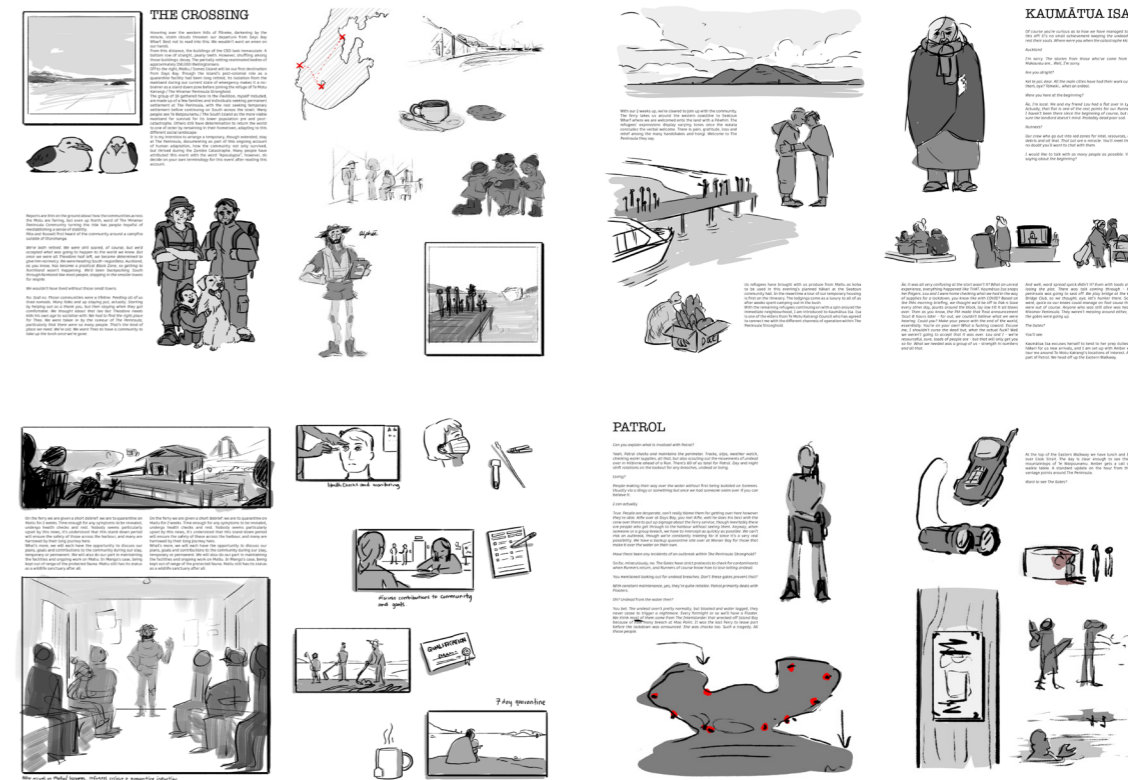


Fig. 43. Journal wireframing. Koedijk, Paige. 2024.

I began writing the story out in sequences that built up the tension, to follow a fairly basic story arc:

1. Establish the context of the story.
2. Offer insight into the world and systems and hint at a conflict.
3. Have the conflict come to a head¹⁵.
4. A resolution.

Expanding on the story overview, I began the creative writing phase, developing the engaging plot and convivial themes¹⁶ (fig. 41). The writing covered personal testimonies, interviews, featurettes and expeditions from around ‘The Peninsula Stronghold’, the nickname given to the Miramar Peninsula in this story.

To test out the potential of the writing, I began layout mock-ups to see how accompanying imagery would read. These loosely drawn wireframes (fig. 43.) enabled me to quickly test the effectiveness of the story and the tone but also helped me to generate and refine ideas. I felt the story and imagery at this point was too serious and needed to be considered further.

¹⁵ Once again: pun intended.

¹⁶ There were many COVID-19 parallels in these early iterations with the use of Matiu/Somes Island as a quarantine facility for refugees before joining the stronghold. This idea is still cannon in the worldbuilding, but had to be cut from *The Peninsula* due to no longer fitting with the format of the newsletter. This will make an appearance in a later issue in some way.

The pivot to the pānui

After further development of the journal, it became difficult to strike the balance between what I wanted to represent narratively, tonally, visually and informatively. The project's scope and hook needed to be refined. Significantly there was an issue with the journal scope: a short story length narrative with corresponding detailed illustrations is a significant commitment, which required more time than this project allowed for. Also, there was a clear need to *hook* the audience into reading the journal in the first place, which called for a more familiar community-aligned mode of information and funnier imagery.

Looking at one of my inspirations for this project, *Pānui Te Motu Kairangi*, I was motivated to switch up the mode of delivery. Pitching an idea during a review of the project, I proposed that a more appropriate way to represent the research was through a community newsletter, a pānui, as it is a familiar document for audiences.

The content would be visually engaging and humorous to please the reader and to create a memorable experience and offer actionable tasks to accomplish the issue that is hinted at.

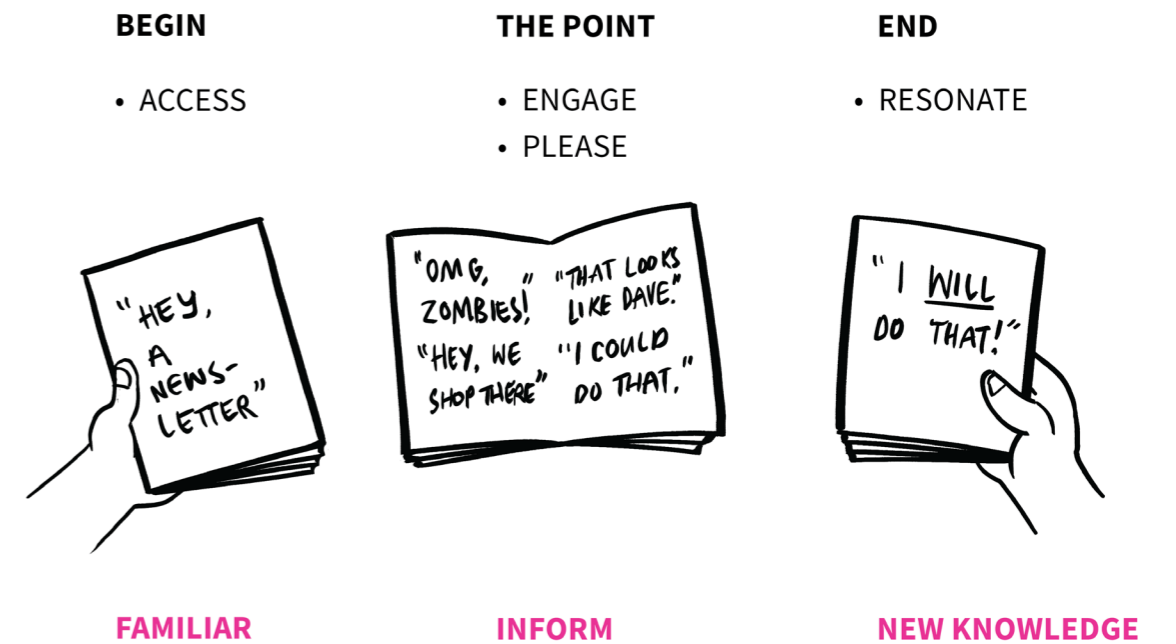


Fig. 44. Pānui engagement strategy. Koedijk, Paige. 2025.

5.2 The editing process: Reflexive and Reflective

After landing on the idea of the pānui, I began with the construction of a miniature pencil prototype (figure 45.) roughing out story and narrative more instinctively¹⁶. This ended up being a lovely little manifestation of my design intention.



Fig. 45. Paper prototype Koedijk, Paige. 2024.

¹⁶ Sometimes digital sketching can be too editable and prevents a fluid ideation experience. So starting on paper helps me get out of a design rut.



Fig. 46. First cover thumbnails. Koedijk, Paige. 2024.

The paper prototype provided me with a clear direction for the pānui formatting and style of humour. Keeping up the playful visuals, I thumbnailed some front cover ideas (figure 46). My aim was to set the tone for the rest of the pānui content and add visual signifiers to align with a newsletter. All the cover thumbnails utilised an engaging graphic treatment of the visuals, but there were two distinct camps each thumbnail fell into: explicit and subversive. The cover either made clear that this was a zombie narrative or a blissful community facade.

In a second round of thumbnailing for the cover, I decided that being upfront with the zombie context would be a positive for several reasons. The sensational nature of a zombie depiction is inherently more engaging as it is not typically encountered in the public's day to day life; it allows for the reader to know the subject matter from the beginning and make an informed decision on whether to continue reading or not; the pānui clearly presents itself as fictional; and depending on the specifics of the cover composition and level of stylisation, I can communicate the level of seriousness.

Thumbnailing

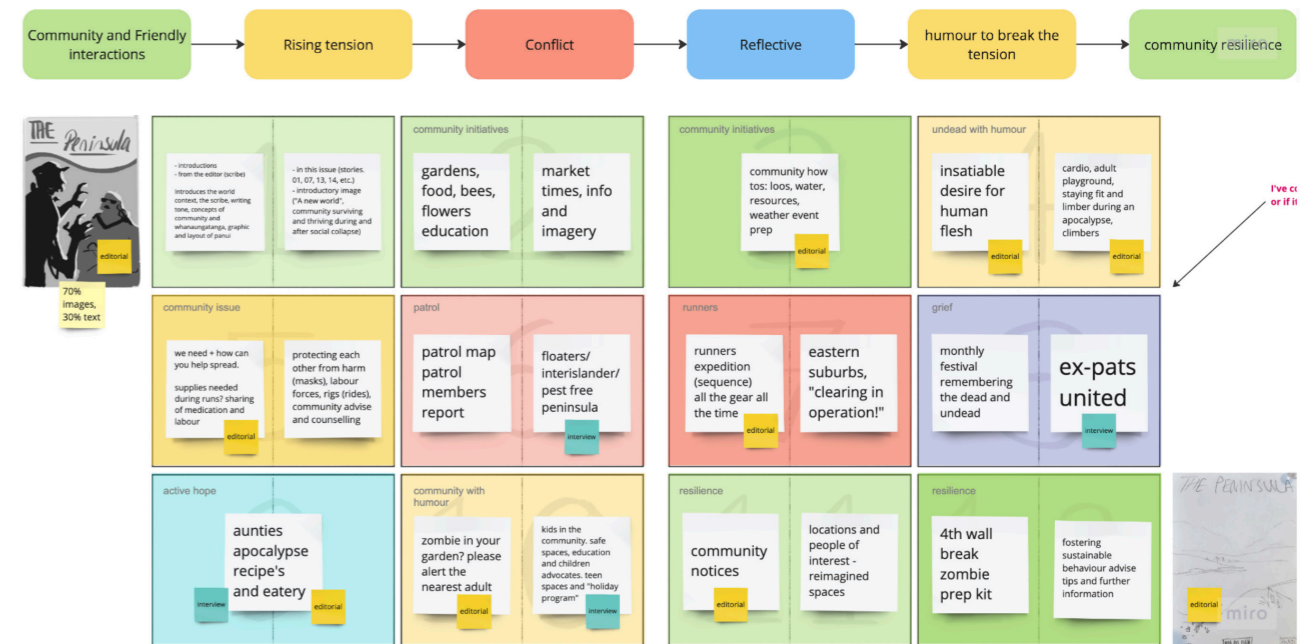
Building off the sweet spot I hit with the paper prototype, I took the thumbnailing phase digital (figure 47). To prevent a possible tunnel vision result when doing a full first draft, I thumbnailed all pages in a bird's eye fashion in Photoshop. Though each page had a singular event or narrative, the method of sketching everything in this overview method kept the bigger picture of whakawhanaungatanga in mind throughout. I rely on this technique when drafting storyboarding and comic layout phases, so that the tension, narrative, and staging are considered holistically.

Through mapping the story's emotional journey, I aimed to create rising and falling tension to continually engage the reader (figure 48). Even though this story evolved in the following months, I always referred back to the emotional delivery behind each spread to prevent turning a page from being too jarring in mood.

Fig. 47. First digital thumbnailing. Koedijk, Paige. 2024.

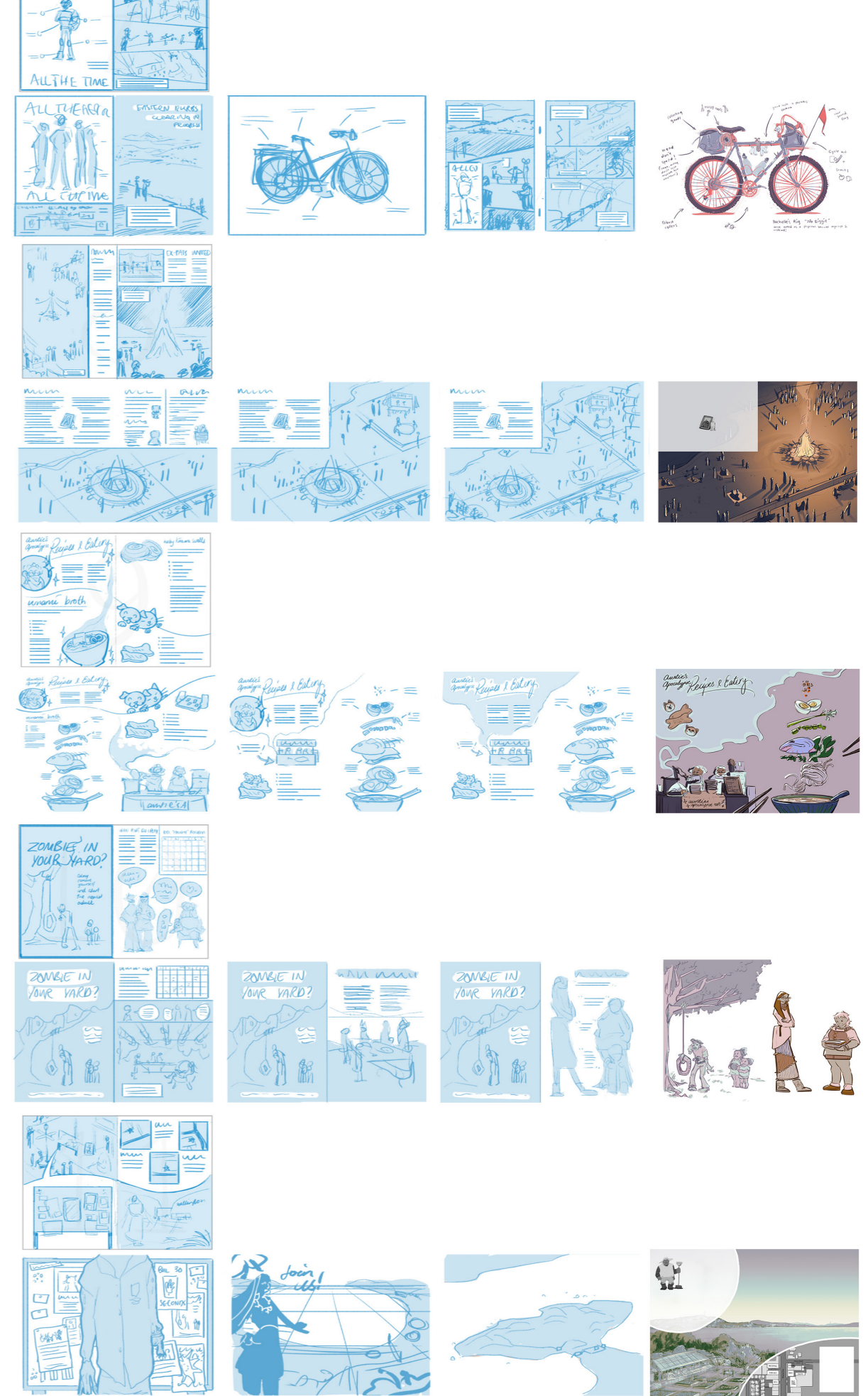


Fig. 48. The Peninsula tension map. Koedijk, Paige. 2024.



Each spread concept was then iterated through further digital thumbnailing (figure 49). Looking to maintain a tether to the newsletter look, I played with graphic elements in the thumbnails and planned for possible body and header text. The back and forth cycle of testing the pairing of drawing with creative writing was a method I used throughout development, to test the efficacy of the pānui.

Fig. 49. First prototype spread development. Koedijk, Paige. 2024.





Test Printing

Printing proved to be an integral method for testing the legibility of the product in terms of physical size, imagery scale, and narrative flow. Designing thus far in my overview style had me focused on the rising and falling narrative holistically. However, as this final product would be a tangible output being read one page after another, it became essential to review the pānui frequently in a mock-up of the final mode (figure 51). Repetition of the pānui designing/printing/redesigning cycle ramped up in the latter stages of design development, where quick notes could be scrawled onto the printed prototypes.

Fig. 50. First prototype test prints. Koedijk, Paige. 2024.



Fig. 51. Notes written on prototypes. Koedijk, Paige. 2025.

5.3 Exploration

Following feedback on the draft pānui, my focus shifted to refining the design's visual and thematic coherence. A worthwhile step before refinement involved the creation of a tone and style guide, a document common in media production. This guide served as a reference to ensure visual consistency across all pānui spreads, by detailing specific visual and thematic characteristics.

The attention-grabbing visuals of the pānui were informed by several key stylistic considerations: dynamic composition, visual identity, characterisation, complimentary graphics and narrative tone through colour.

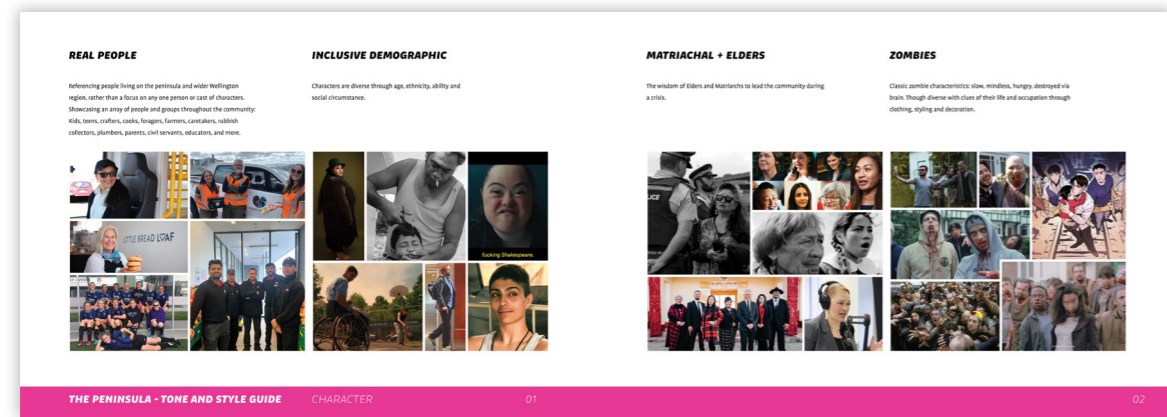


Fig. 52. Image from tone and style guide. Koedijk, Paige. 2024.



Fig. 53. Use of contrast in composition development. Koedijk, Paige. 2024.

Dynamic composition

To effectively communicate the themes of whakawhanaungatanga and humour through the illustrations, composition was a cornerstone consideration during design development.

The use of negative space and contrast provided clarity of the spread elements, such as the relationship between the placement of characters and the “hazard” (zombies)

and providing understanding of image depth and objects. Spreads with high contrast and implied direction created dynamic tension for the story moment.

Pulling back from the subject matter allowed for the composition to involve more of the environment and provided neat little opportunities for design details to be seen in full—a ‘third party observer’ quality that Max Guther uses in his own design work.

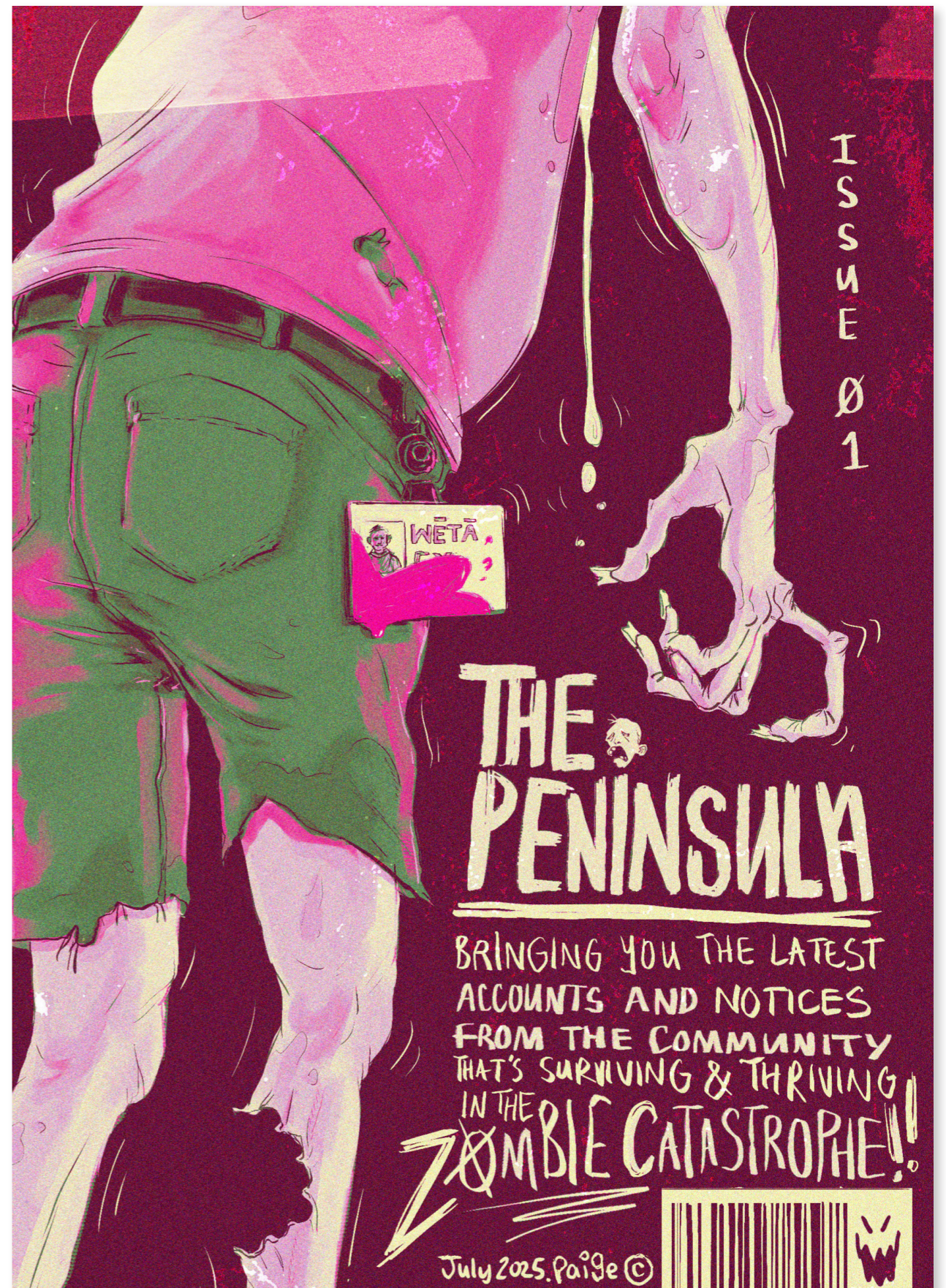
The final pānui cover (Figure 54.) introduces us to the context of a threat. The partially obscured form of a slouched and stiff figure with a stylised chunk bitten out of their leg gives us the zombie context. The zombie archetype wouldn't be complete without a languid, stretched glob of spittle dangling from the unseen head, unseen to reduce the personhood of the zombie, keeping them generic. The fact that this is a fictitious work becomes immediately obvious since zombies are not a real-life threat (currently—fingers crossed). Adding a Wētā swipe card affixed to a pair of distressed, casual jorts gives a personal connection to the target audience—everyone living on the peninsula is familiar with the constant hoard of Wētā¹⁷ workers milling about between the various production buildings, if not being a said worker

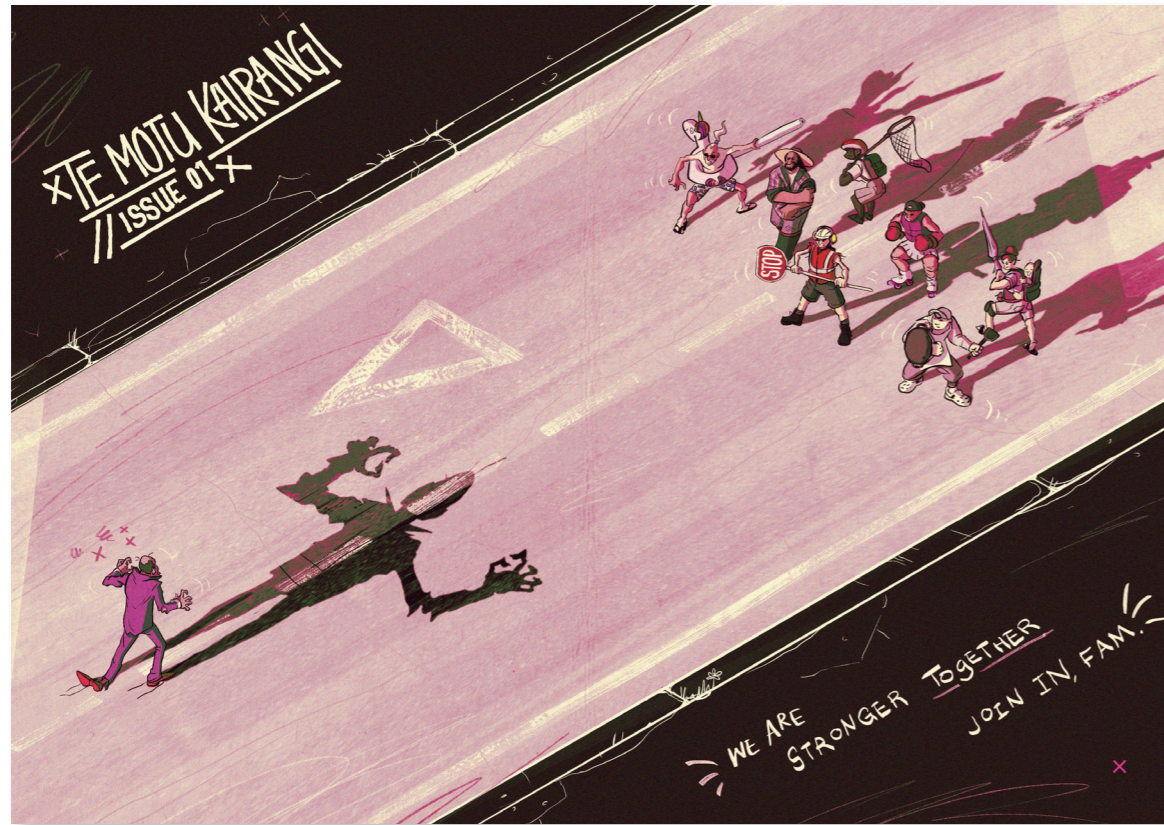
¹⁷ Wētā FX and Wētā Workshop combined employ in the thousands. With these employees located primarily in the various production buildings located across the peninsula.

themselves. 'The Peninsula', hand-scrawled to create an "on-the-fly" look, creates a sense of urgency and sets out the location for the narrative. 'Issue 01' contextually sets the expectation that this is an anthology, and the logline outlines that the subject of this fictional account is a community.

The flow of the internal spreads has been deliberately composed to reveal context with each turn of the page.

Fig. 54. *The Peninsula* cover, issue 01. Koedijk, Paige. 2025.





The first spread (see fig. 55.) uses high contrast to clearly outline a standoff between a lone zombie and a ragtag bunch of survivors. The large Te Motu Kairangi - issue 01 is a tie in from the front cover synopsis and tells the reader that these characters represent the community. The casual slogan “We are Stronger Together. Join in, Fam.” intentionally brings the message of this project to attention before moving through the remaining design.

Following immediately after is a spread that gives the reader an “update from the Zombie Mitigation Board” regarding the “zombie catastrophe” that we all “know” about (fig. 56). The perspective of the writing here deliberately conveys that the reader is “in” on the joke of this fictional pānui, which is my strategy to provide an immersive read. The illustration has an isometric view of the unknown author’s hands using a typewriter—a nice nod to the typeface *American Typewriter* used throughout the body text of the pānui. The scene is then littered with details such as the mug having the pānui name on it and the line of ants carrying

food off for their colony which is a metaphor for the community collaboration shown in subsequent spreads.

A contents page follows (see fig. 57.), which outlines the types of content the reader will encounter in the pānui. It was important to incorporate graphic and formatting signifiers of newsletters, so that a pānui is communicated. Accompanying the contents list, is an illustration that focuses on the Wellington sign at the main entrance to the peninsula called “the Cutting”, which now has a large architectural blockade. Paired with this location are the commonplace residents that like to fish along the concrete wall. I intentionally tried to emulate a relaxed, weekend feel for this illustration to communicate that the community is at ease.

Fig. 55. *The Peninsula*, Standoff. Koedijk, Paige. 2025.

Fig. 56. *The Peninsula*, ZMB update. Koedijk, Paige. 2025.

Fig. 57. *The Peninsula*, Contents. Koedijk, Paige. 2025.

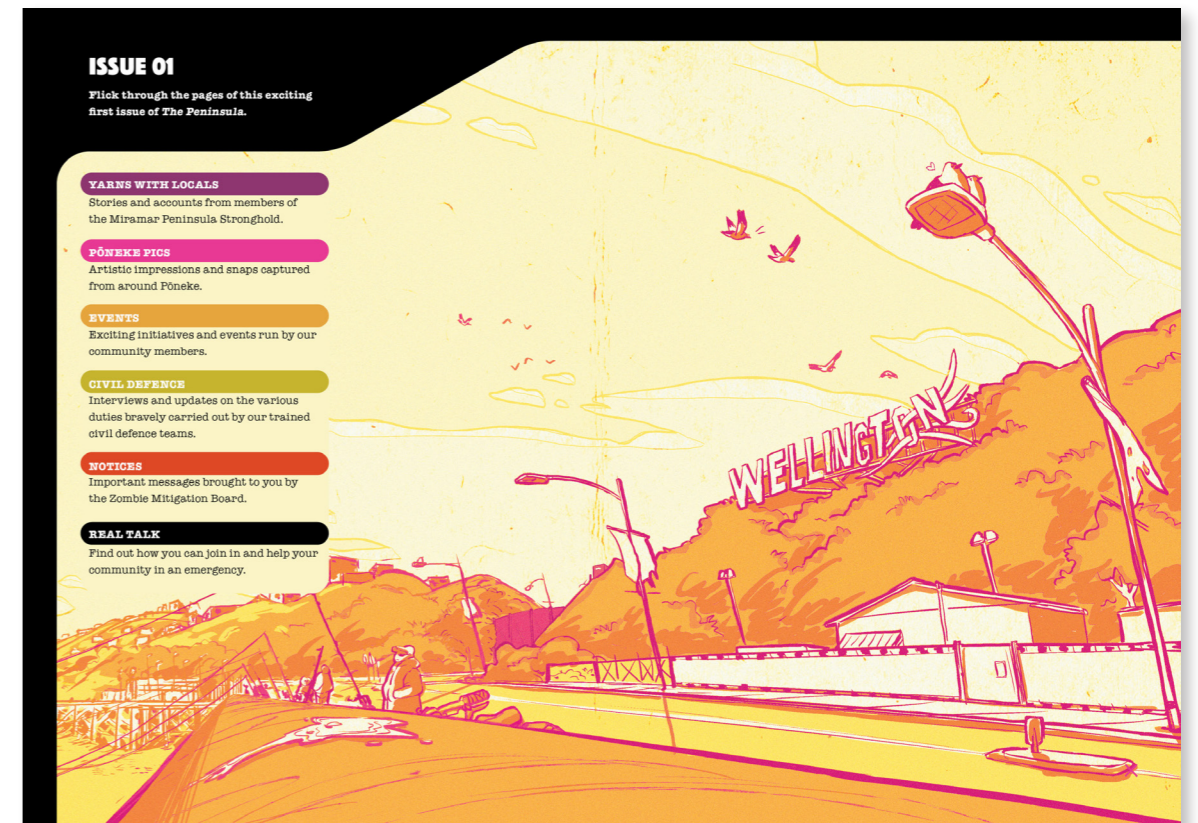


Update from the Zombie Mitigation Board:

As you well know, in the months since the zombie catastrophe, The Miramar Peninsula Stronghold has been surviving and thriving as a community unwilling to sink into despair. How the rest of the world is faring remains unknown, but in Aotearoa we face disaster by rolling up our sleeves.

In an effort to celebrate, inform and solace our community during this ongoing disaster, we have assembled this pānui to shine light on Te Motu Kairangi's collective spirit and mahi. In this first issue you will find personal accounts, community notices on how you can keep safe, snapshots from around Pōneke and featurettes on some of our hard working civil defence crew.

Enjoy this first issue of *The Peninsula*.



ISSUE 01

Flick through the pages of this exciting first issue of *The Peninsula*.

YARNS WITH LOCALS

Stories and accounts from members of the Miramar Peninsula Stronghold.

PŌNEKE PICS

Artistic impressions and snaps captured from around Pōneke.

EVENTS

Exciting initiatives and events run by our community members.

CIVIL DEFENCE

Interviews and updates on the various duties bravely carried out by our trained civil defence teams.

NOTICES

Important messages brought to you by the Zombie Mitigation Board.

REAL TALK

Find out how you can join in and help your community in an emergency.

Identity

The reveal of context continues with each of the subsequent 18 spreads, with the visual signifiers within the illustrations emulating the familiar, urban peninsula feel for the reader. Capturing the look of Wellington's eastern suburbs was achieved through wide streets, beach fronts and older homes, which all have a visual horizontal through-line that complimented the double page spread format of the pānui. Detailing such as abundant poles, wires and concrete, general breakdown and age like footpath cracks and peeling paint help create an urban feel.

As a fun (and sensible) worldbuilding aspect, the community's resourceful solutions for mobility are active transportation methods: walking, biking, scootering, skateboarding, roller skating, trolleys, etc. The Wellington

region has invested a fair amount in getting the public interested in using active transportation methods, with noticeable uptake. It felt natural to reflect this in the attitudes of the community, but also as a throwback to the demand for bikes and the like during the COVID-19 lockdowns in Aotearoa.

To add visual interest, the styling of Runners' attire and weaponry have a retrofitted and scrappy look. This mimics the practicasual fashion I expect many Kiwis to adopt in an apocalyptic narrative. Characters considering what they have access to, and making it work - in this case with a comedic effect.



Fig. 58. *The Peninsula, Meals on Wheels*. Koedijk, Paige. 2025.

Characterisation

Instead of focusing on a small team of protagonists (typically seen in most disaster-based storytelling), there is a broader cast represented throughout the narrative. By highlighting character archetypes and character groups, I was able to communicate that this story is about the power of a united community. The Miramar Peninsula community also has a diverse makeup¹⁸, so reflecting this through the suite of characters in the pānui provides the reader opportunities to resonate with or “recognise” multiple characters from their own experiences in the community.

Highlighting elders as leaders within the community was important for the kaupapa of this research. Firstly, they are very visible in the community as elderly members have some of the highest rates of volunteering (Gee qtd. in Burns 6) and due to being typically retired, frequent community amenities during the day. Secondly: with age comes wisdom. The tacit knowledge and authority that elderly community members wield is an asset during a crisis.

The zombies as a hazard are the primary motivation for survival shenanigans and the source of humour for the story. But additionally, how the zombies as a character archetype are represented also required consideration for the overall tone of the story. The zombie as a metaphor in this research is a stand-in for any potential hazardous emergency, so it did not require any deeper nuance or subversive trait that other zombie media uses for their metaphors. Classic zombie characteristics would suffice for this world—slow and shuffling, singularly hungry, and destroyed via the brain. One opportunity to add narrative dimension to the zombies was through clues of their lives before zombification: their occupation or self-identity represented through their decaying clothing, remnants of personal styling and decorative detailing. Again, I was aiming for the reader to “recognise” the zombie as an in-joke.

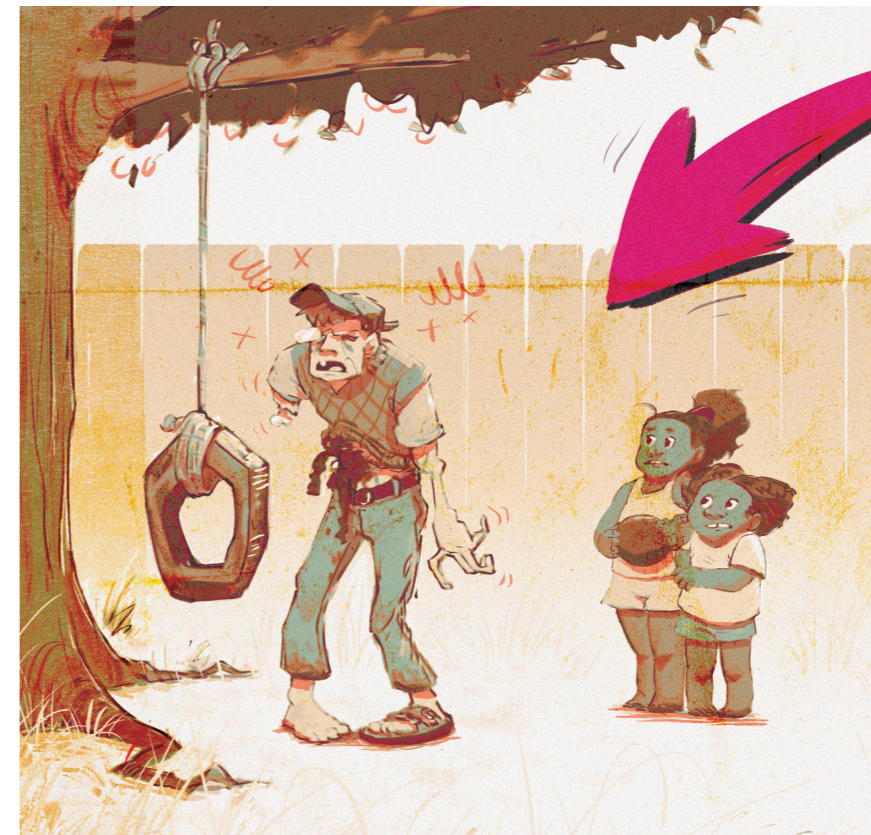


Fig. 59. Zombie from *The Peninsula*. Koedijk, Paige. 2025.

¹⁸ As observable in the Stats NZ 2023 census data.

Complimentary graphics

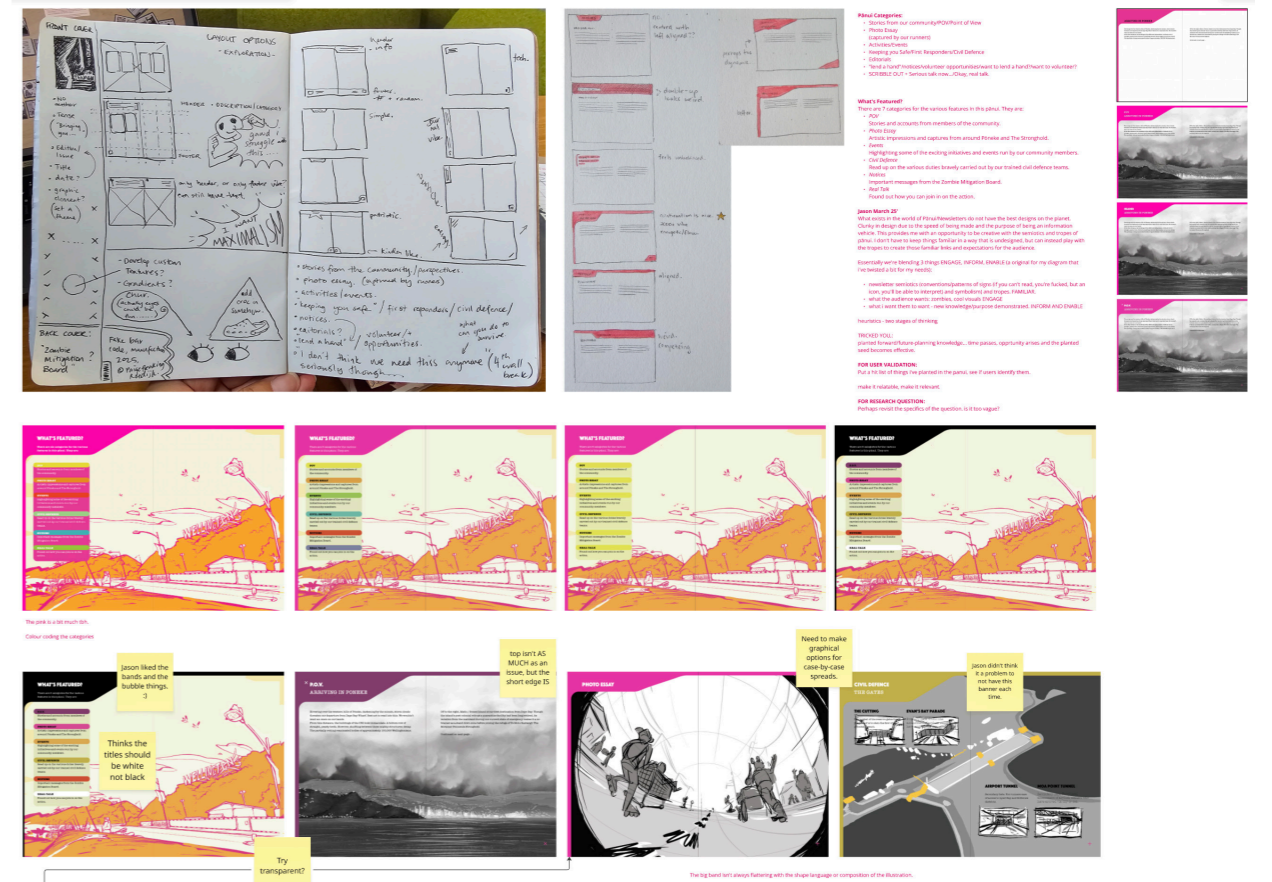
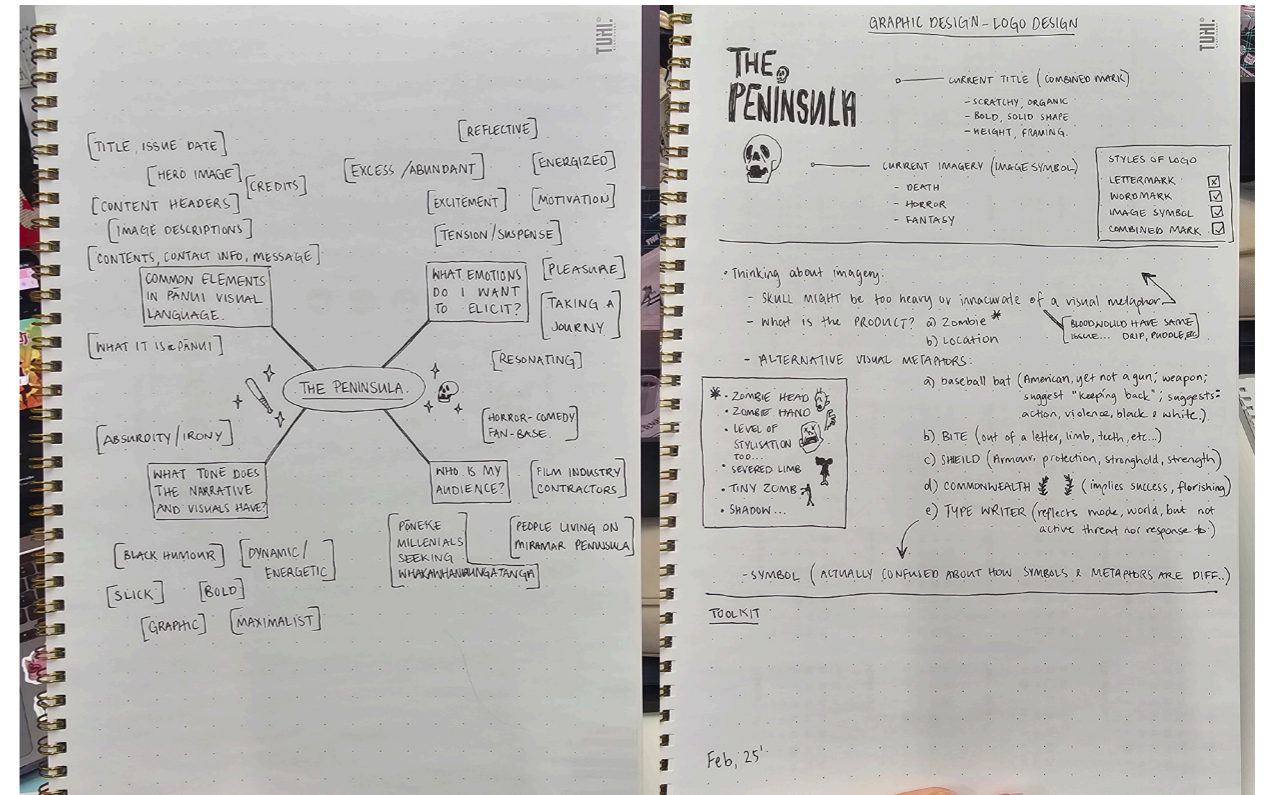
Illustrations and written excerpts alone aren't enough to satisfy communicating whakawhanaungatanga. Zines, for example, have graphic additions to lead a reader through the pages. Exploring where newsletter elements could be incorporated helped give the design more of a published look, closer to a newsletter for the reader. Flicking through magazines, newsletters and flyers, some of the graphic tropes I identified were titles, issue information, barcodes, copyrights, contents information, page headers, intentionally inconsistent typography (particularly with magazines, as multiple creatives are working on contributing pieces)

The writing "voice" of the pānui is from this in-world journalism collective whose aim is to create a community outlet but with limited resources. To suit this idea, I explored how I could emulate an "undercurrent" magazine aesthetic to feel more grassroots.

The text treatment has a scrappy look with a mixture of bold and clear headers, typewriter¹⁹ body text and hand-written embellishments.

¹⁹ If the reader lingers on this typewriter and twink detail they may realise that this is demonstrating the restricted technology of The Peninsula. With the peninsula being cut-off from the mainland, there will be some allowances in what modern tools can still be used.

Fig. 59. Explorations of graphic treatment. Koedijk, Paige. 2025.



Narrative tone through colour

Colour was a crucial component of the visual language in communicating the fictitious and silly setting of the world. I had the idea for a washed out appearance for the majority of the illustrations—particularly the ones featuring the outdoors—to mimic sun bleached packaging found at the roadside during an apocalyptic fallout. Exposure to light reduces the vibrancy of colour, so to recreate this effect I prioritised the use of analogous colour palettes that skewed towards the peaches, pinks and yellows—like raro packets. Growing up in the late 90s and early 00s, brewing the powdery fruit juice replacement meant summer time and at home pleasures. This touch of Kiwi summer time nostalgia communicates that the community is able to relax and feel safe due to their collective effort and support.

Exploration of colour was carried out using gradient maps in Adobe Photoshop, with the preferred mockup informing the colour palette for the graphic elements of the pānui.

An important consideration for the illustrations was the level of realism. If the colours were close to life, the fictional lens would become less apparent, and for some Kiwis, disaster is a recently lived experience. So a visual separation to real disaster was achieved by the exaggerated, unlikely colours.

Hot magenta was an early choice for the primary feature colour of the pānui. The loud hue creates a similar sense of urgency that fire truck red creates, while maintaining distance to any violent connotations such as blood.



Fig. 60. Colour exploration snapshot. Koedijk, Paige. 2024.

5.4 Breaking the Fourth Wall

The 'voices' of the pānui

The initial journal format of this research leaned more towards a linear narrative about the peninsula being cut-off from the zombie infested mainland, and had a narrator referred to as 'The Scribe'.

Initially, this scribe was a traveling journalist, whose mission was to document²⁰ the ways humanity was handling the unfolding zombie catastrophe. They were an objective observer who visited and documented the communities' accounts, survival strategies and stories through illustration, photography, interviews and written word. For the reader to more easily accept the role of The Scribe in recounting the story, they were left intentionally ambiguous as an individual, wholly lacking an identity other than their pseudonym.

Finally, to illuminate the message of this research, towards the end of the pānui, I literally tear away the fictional pretence, revealing myself for the upcoming messaging on disaster risk reduction. Interrupting the end of the newsletter with a 4th wall break

was necessary to validate the reader's hunch on the point of the pānui, or if they remained clueless, to be explicit about the significance of the zombie catastrophe's parallels with real-life disaster and the reader's power to contribute to whakawhanaungatanga. Having the authority of the author confirm the in-joke felt like the correct send-off for the design, giving the reader a satisfying lead back into the real world.

The serious message of "disaster doesn't run on a schedule!" in fig. 62. is a reminder that an emergency could be announced without warning—such as with earthquakes—and that communities need to be poised to support one another. Pairing this message with the ludicrous illustration of zombies waiting to unleash an attack on unsuspecting beachgoers—silly, as everyone²¹ knows that zombies do not premeditate their attack—parallels the indiscriminate nature of hazards.

²⁰ I have been inspired by Max Brooks' *World War Z* novel since first reading it during train commutes to and from Uni. The Scribe is was very much inspired by the orator character from *World War Z*.

²¹ Probably.

Fig. 61. Brainstrom of the journal. Koedijk, Paige. 2023.

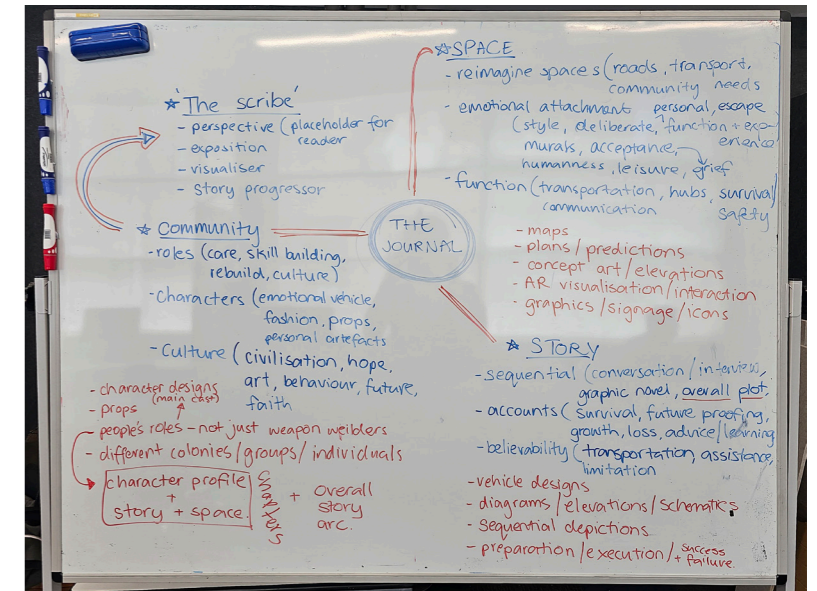


Fig. 62. *The Peninsula*, Disaster doesn't run on a schedule! Koedijk, Paige. 2025.

REAL TALK

COMMUNITY IS YOUR SUPPORT CREW!

In a disaster, your neighbours, your street, and wider suburb, are your first line of response. Whakawhanaungatanga is easy to nurture! Simply saying 'hi' can make all the difference. Hi!



Real Talk

Following the message of urgency is figure 63, which illustrates a variety of ways one can nurture whakawhanaungatanga to strengthen neighbourly and community bonds and build relationships with vulnerable community members. By demonstrating accessible convivial social norms, the reader is gently reminded that whakawhanaungatanga is both normal and easy to initiate. These actionable tasks tell the reader that the responsibility for fostering a resilient community is something they themselves can take on (offering company, lending a hand, introducing yourself, offering your support/eyes/ears/car/etc.), rather than suggesting that all responsibility to look out for vulnerable populations lies with government agencies.

The final spread seen in figure 64 brings the reader back to the zombie metaphor but making plain that the community should have each other's back. That there is strength in collaboration that may keep people alive and safe in an emergency event.

The custom QR code can then be scanned, taking readers to CDEM's *Get Ready* site where they can read more on how to prepare for an emergency as a community.

Fig. 63. *The Peninsula*, Whakawhanaungatanga. Koedijk, Paige. 2025.

Fig. 64. *The Peninsula*, We're stronger together! Koedijk, Paige. 2025.

REAL TALK



5.5 User Validation

To verify the effectiveness of the pānui's message, I conducted user validation using the final prototype. The user group was a convenience sample of anonymous contacts approached by my *own* contacts that were aged between 18 and 55 and currently, or previously, a resident of the Miramar Peninsula. Users were provided with a physical copy and asked to read as much of it as they wanted before optionally filling out a digital feedback form. The form asked users to respond with "3 things you realised or would like to respond to about The Peninsula pānui?" (see appendix).

There was a total of 32 responses received, which generally fit into the following categories: 'narrative and visual remarks', 'themes and issues identified' and 'actions outlined'.

One user remarked that the pānui was "a page turner" and that "each page was amusing and aloof in its own way which encouraged me to keep turning the pages". The familiar local settings had the reader turning the pages with amusement and recognition, pleased to see a personalised version of disaster management information. "As a peninsula resident, it was a natural draw for me to finish the pamphlet in its entirety, as I felt a personal connection

to the fictional story." Another user found the "Wellington-specific locations" helped to draw them into the story as "it's rare to see the specifics of our city in works of fiction, so it felt more relatable/immersive than if it had a nondescript fictional setting."

Readers remarked on the rewarding feeling of spotting small jokes and details and the use of quirky Kiwisms and that the visual style felt contemporary. One user commented that they were "definitely more invested in reading this than a PSA about something mundane like an earthquake or tsunami." Users found the visual treatment to be "awesome", "fun and contemporary", which paired with the recognisable setting, helped retain engagement.

Users identified the role that compassion, neighbours, community bonds and teamwork contribute to emergency preparation and the "limitations of government assistance in a real emergency". Some users reflected on the fact that they don't know their neighbours well or at all, with one user remarking that they "hadn't considered that I may have neighbours that don't have a family/support network of their own to help in an emergency." A sentiment shared in the user responses

was the feeling of a lack in established relationships with neighbours. Although the action of getting to know one's neighbours was mentioned in some of the responses, there weren't any responses saying they "will" get to know their neighbour.

Although the convenience sample was limited in size and likely comprised residents in social situations like my own, these reflections that emphasise the critical role of resilient communities in supporting vulnerable populations, evidence the *potential* of a storytelling approach to design for emergency management.

Limitations and Potential

Based on the user feedback that was received, the pānui was successful in these key ways: the bold and fun visual style paired with the familiar setting was rewarding for readers, keeping them engaged; the theme of a resilient community was clearly illustrated, with users reflecting on their own perceived lack of community relationships; after reading, users acknowledging their need to contribute in nurturing community and preparing for an emergency.

The pānui has limitations in encouraging *uptake* of whakawhanaungatanga as social and behavioural norms must be *repeatedly* seen and adhered to become habit—and although it's a great start, a single newsletter demonstrating these norms will not suffice.

I wouldn't make any significant changes to *The Peninsula*, as I believe it has the potential to have extended applications. Further issues of the pānui could be published to reinforce

the themes and demonstrate social norms. These additional issues could be made in collaboration with local creatives and artists who would contribute to the fictional world with their own stories and ideas.

My take on Aotearoa's fictional zombie catastrophe could also be applied through other design outputs to address emergency management and disaster risk reduction. These could include interactive community workshops with playful and practical zombie scenarios, longer format stories or short format infographics. These ideas could include the implementation of co-design, where community members aid in the creation of the information and story. This could create greater impact through a diversity of the stories, extend the reach of the information through a wider network, and offer opportunities to nurture whakawhanaungatanga by and for the local community.

Conclusion

This research explored the potential of fictional storytelling as an engaging mode for presenting emergency management information related to community resilience. Anthropogenic effects on the climate are amplifying the frequency and severity of weather events and the resulting impacts on communities, which is further exacerbated for vulnerable populations. Disaster risk reduction literature supports the concept that resilient communities and strong community bonds are needed to mitigate these impacts.

The Peninsula takes the familiar printed newsletter and recontextualises it as a community pānui that highlights the accounts and collaborative efforts of the Miramar Peninsula surviving and thriving during an ongoing zombie catastrophe. This illustrated pānui is the culmination of the theories and ideas from this research. The zombie catastrophe is a sensational parallel to real-world emergency events, so that the reader can speculate about their own response to potential disaster without an active threat. The affectively designed illustrations utilise locations and characters

familiar to Wellingtonians, and the humorous visual irony fits within the contemporary horror genre that is uniquely 'Wellington'. I drew on community-based social marketing strategies, outlined by Doug McKenzie Mohr, by demonstrating expected social norms in the interactions between characters. The convivial interactions outlined at the end of the pānui demonstrate easy ways that the reader can nurture whakawhanaungatanga, which provides support for vulnerable neighbours.

Inquiry by design methodologies were used to advance the narrative and visual language of the pānui, including the design strategies of holistic thumbnailing, regular test printing, examination and peer discussion. Other visualisation methods used were iterative sketching, exaggeration of composition, use of contrast and bold shapes, and experimentation of atypical colour pallets—all with the aim of keeping the pānui light and fun.

The pānui was positively received during testing, with users correctly identifying the theme of community resilience to disaster,

and some users remarking that they lacked neighbourly relationships. Though these responses reflect the efficacy of the design, self-perception theory makes clear that repeated exposure to social ideals is necessary for individuals to, themselves, generate a new norm, which cannot be achieved with a single fun newsletter. Additional issues of *The Peninsula* could contribute to the ongoing demonstration of social norms and reiterate the priority of fostering a sense of community for readers. Given the positive reception to the design, the fictional zombie world could also be applied to future emergency management causes, which I hope to design. As a designer who has previously been commissioned to blend narrative and scientific information, this research project was an opportunity to explore how to communicate *social* change through storytelling. My research intention is to continue to playfully present typically factual information in an unapologetically humorous tone.



Fig. 65. *The Peninsula*, back cover. Koedijk, Paige. 2025.

Works Cited

28 Days Later. Directed by Danny Boyle, produced by Andrew MacDonald, Fox Searchlight Pictures, 2002.

Adobe Photoshop. <https://www.adobe.com/products/photoshop.html>. Accessed 1 July 2025.

American Typewriter. Joel Caden and Tony Stan, ITC, 1974.

Black Sheep. Directed by Jonathan King, performances by Nathan Meister and Tammy Davis. New Zealand Film Commission, 2007.

Braindead. Directed by Peter Jackson, produced by Jim Booth, Trimark Pictures, 1992.

Brett, John and Oviatt, Kate. "The Intrinsic Link of Vulnerability to Sustainable Development." *Social Vulnerability to Disasters*, edited by Deborah S.K. Thomas and Brenda D. Phillips and William E. Lovekamp and Alice Fothergill, 2nd ed., CRC Press eBooks, 2013, pp. 57–80, doi: 10.1201/b14854. Accessed 8 Mar. 2025.

Brooks, Max. *World War Z: An Oral History of the Zombie War*. Crown, 2006.

Burns, Kate. *Impacts of the Initial 2020 COVID-19 Lockdown on Volunteers Aged 70+ Years at New Zealand Red Cross*. 2021, Massey U, Master's thesis, <https://mro.massey.ac.nz/server/api/core/bitstreams/89b7d2e8-f3a0-40bc-a2ec-092520aacc41/content>. Accessed on 19 July 2024.

"Central Record of State Land" *Land Information New Zealand*, Eagle Technology, <https://linz.maps.arcgis.com/apps/webappviewer/index.html?id=8501fe601f7648718d0e3a2f3f1ed216>. Accessed 25 May 2024.

Clarke, Travis. "Pandemic movie 'Contagion' is surging in popularity due to the coronavirus and has hit the No. 7 spot on iTunes." *Business Insider*, 6 Mar. 2020, <https://www.businessinsider.com/coronavirus-contagion-movie-is-surgingly-in-piracy-rentals-on-itunes-2020-3>. Accessed 16 Mar. 2025.

Climate Change 2023: Synthesis Report. Intergovernmental Panel on Climate Change, 2023, <https://www.ipcc.ch/report/ar6/syr/summary-for-policymakers>. Accessed 03 Mar. 2025.

Climate Change 2014: Impacts, Adaptation, and Vulnerability. Intergovernmental Panel on Climate Change, 2014, https://ianas.org/wp-content/uploads/2020/08/ClimateChange_IPCC_A.pdf. Accessed 03 Mar. 2025.

"Coalition Agreement." New Zealand National Party and ACT New Zealand. 24 Nov. 2023, https://assets.nationbuilder.com/actnz/mailings/6945/attachments/original/National_ACT_Agreement.pdf?1700781466. Accessed 5 Mar. 2025.

Contagion. Directed by Steven Soderbergh, performances by Marion Cotillard, Matt Damon, Laurence Fishburne, Jude Law, Gwyneth Paltrow, Kate Winslet, Bryan Cranston, Jennifer Ehle, Sanaa Lathan, Warner Bros. Pictures, 2011.

Coyle, Jake. "George A. Romero, Father of the Zombie Film, Is Dead at 77." *AP News*, 17 July 2017, <https://apnews.com/article/095f3e49a66049528da9f8149d7d503f>. Accessed 27 June 2025.

Creamerie. Created by Roseanne Liang, J.J. Fong, Perlina Lau, Ally Xue, Flat 3 Productions, 2021–2023

- Cull, Paul. *Community-Based Disaster Response Teams for Vulnerable Groups and Developing Nations*. 2019, Massey U, Master's thesis. <https://mro.massey.ac.nz/server/api/core/bitstreams/8a681aa8-cbcf-41e3-be1e-2e4c682bc167/content>. Accessed 19 July 2025.
- Dawn of the Dead*. Directed by George A. Romero, produced by Richard P. Rubinstein, United Film Distribution Company, 1978.
- “Declared States of Emergency.” *Civil Defence — Te Rākau Whakamarumarū*, National Emergency Management Agency, <https://www.civildefence.govt.nz/resources/previous-emergencies/declared-states-of-emergency>. Accessed 25 Nov. 2023.
- “Disability Types and Description.” *National Disability Services*, <https://nds.org.au/disability-types-and-description#PsychosocialDisability>. Accessed 7 Mar. 2025.
- “Drop, Cover and Hold.” *Get Ready*, <https://getready.govt.nz/emergency/earthquakes/drop-cover-hold>. Accessed 10 Mar. 2025.
- Drucker, Johanna. *The Century of Artists' Books*. 2nd ed., Granary Books, 2004.
- Elliott, Marianne. *Out of the Maze: Building Digitally Inclusive Communities*. The Workshop, 2018.
- Fae, Erin. *Zine-o-mat*. 2018, Auckland Libraries, Auckland.
- Fae, Erin. “Zine-o-Mat.” *Erin Fae*, <http://www.erinae.com/portfolio/zine-o-mat/>. Accessed 15 June 2025.
- Flight of the Conchords*. Created by James Bobin, Jemaine Clement, Bret McKenzie, Dakota Pictures, 2007–2009
- “Flood Zones.” *Wellington City Council*, Wellington Water Ltd Modelling Team, 16 Jan. 2020, <https://data-wcc.opendata.arcgis.com/maps/flood-zones-3>. Accessed 8 Mar. 2025.
- “Get Your Household Ready for an Emergency.” *Get Ready*, <https://getready.govt.nz/prepared/household>. Accessed 30 June 2025.
- Guther, Max. “About” *Max Guther*, <https://maxguther.de/about.html>. Accessed 15 June 2025.
- High Water*. Created by Jan Holoubek, Telemark, 2022.
- Harrington, Erin. “Policing through Parody with Wellington Paranormal.” *Continuum*, vol. 34, no. 1, 5 Dec. 2019, pp. 88–101. <https://doi.org/10.1080/10304312.2019.1699025>. Accessed 17 Mar. 2025.
- Housebound*. Directed by Gerard Johnstone, XLRator Media, 2014.
- Jabr, Ferris. “How Realistic Is Contagion? The Movie Doesn't Skimp on Science.” *New Scientist*, 6 Apr. 2020, <https://www.newscientist.com/article/2239913-how-realistic-is-contagion-the-movie-doesnt-skimp-on-science/>. Accessed 16 Mar. 2025.
- Jury, David. *Reinventing Print : Technology and Craft in Typography*. Bloomsbury Visual Arts, 2018.
- Kearns, Nardia. *Stories from a Hazardscape: Living with chronic illness in Petone, Aotearoa New Zealand*. 2022, Massey U, Master's thesis. <https://mro.massey.ac.nz/server/api/core/bitstreams/581eb852-0146-45ca-ae90-0be90553300b/content>. Accessed 4 Mar. 2025.
- Kee, Chera. *Not Your Average Zombie: Rehumanizing the Undead from Voodoo to Zombie Walks*. University of Texas Press, 2017. JSTOR, <https://doi.org/10.7560/313176>. Accessed 30 June 2025.
- Knox, Ashley. *Resurrecting the Humanity of the Undead: Humanism and Posthumanism in Zombie Films*. 2015, Regis U, Honors thesis. <https://epublications.regis.edu/cgi/viewcontent.cgi?article=1645&context=theses>. Accessed 12 Mar. 2025.
- Kruvand, Marjorie and Silver, Maggie. “Zombies gone viral: How a fictional zombie invasion helped CDC promote emergency preparedness.” *Case Studies in Strategic Communication*, vol. 2, 2013, pp. 34–60. <https://cssc.uscannenberg.org/wp-content/uploads/2013/10/v2art3.pdf>. Accessed on 3 Mar. 2025.

Laking G, Caddie M, Thorpe H, McClutchie J, Chaffey D, Maxwell H, Philip-Barbara H, Bell J, Horgan-Heke E, Langridge F, Exeter D, Eggleton K, Sing F, Egli V, Colbert J, Sluyter J, van der Werf B, Ikiua O, McCool J. *Te Weu me Te Wai | Research into health and wellbeing impacts of adverse weather conditions*. 2024. <https://teweu.nz/extreme-weather-events-impact-on-health-wellbeing-in-tairawhiti/>. Accessed 03 Mar. 2025.

La Palma. Created by, Martin Sundland, Lars Gudmestad, Harald Rosenløw Eeg, Fantefilm, 2024

Lauren J. Vinnell, Amanda Wallis, Julia S. Becker, David M. Johnston, “Evaluating the ShakeOut drill in Aotearoa/New Zealand: Effects on knowledge, attitudes, and behaviour,” *International Journal of Disaster Risk Reduction*, Volume 48, 2020, <https://doi.org/10.1016/j.ijdr.2020.101721>. Accessed 16 June 2025.

“Local and Regional Hazard Risk Reduction.” *Civil Defence — Te Rākau Whakamarumarū*, National Emergency Management Agency, 10 May 2023, <https://www.civildefence.govt.nz/cdem-sector/the-4rs/reduction/local-and-regional-hazard-risk-reduction>. Accessed 30 June 2025.

McKenzie-Mohr, Doug. *Fostering Sustainable Behavior : An Introduction to Community-Based Social Marketing*. 3rd ed, New Society Publishers, 2011.

M. Kenney, Christine and Phibbs, Suzanne. “A Māori love story: Community-led disaster management in response to the Ōtautahi (Christchurch) earthquakes as a framework for action.” *International Journal of Disaster Risk Reduction*, Volume 14, Part 1, 2015, pp. 46–55, <https://doi.org/10.1016/j.ijdr.2014.12.010>. Accessed 9 Mar. 2025.

Monteyne, Joseph. Preface. *Inside Magazines : Independent Pop Culture Magazines*. Patrick Andersson and Judith Steedman, London, Thames & Hudson Ltd, 2002, pp. 6–7.

Moore, Sam. *People of New Zealand*. A&U New Zealand, 2019.

Moore, Sam. “People of New Zealand Artist Sam Moore.” Interview conducted by Jessie Mulligan. Afternoons, *RNZ*, 16 Nov. 2018, <https://www.rnz.co.nz/national/programmes/afternoons/audio/2018671533/people-of-new-zealand-artist-sam-moore>. Accessed on 30 May 2025.

“New Zealand Enters Nationwide Lockdown in Fight against COVID-19.” *NZ History*, Manatū Taonga — Ministry for Culture and Heritage, 27 May 2024, <https://nzhistory.govt.nz/page/new-zealand-enters-nationwide-lockdown-fight-against-covid-19>. Accessed 9 Mar. 2025.

Night of the Living Dead. Directed by George A. Romero, produced by Russell W. Streiner and Karl Hardman, Continental Distributing, 1968.

“Pānui Te Motu Kairangi” *Miramar & Maupuia Community Centre*, 2020–2023 <https://www.mmcc.org.nz/communitynewsletter>. Accessed 31 July 2024.

“People Watching on Cuba Street” *The Post*, The Post | Te Upoko o Te Ika, 25 Feb. 2024, <https://www.thepost.co.nz/culture/350187687/people-watching-cuba-street>. Accessed 30 May 2025.

Piepmeyer, Alison. “Why Zines Matter: Materiality and the Creation of Embodied Community.” *American Periodicals: A Journal of History & Criticism*, vol. 18, no. 2, 2008, pp. 213–238.

Portal 2. Directed by Joshua Weier, Valve, 2011, PC.

“Ray Gun ”, *Design Is History*, <http://www.designishistory.com/1980/ray-gun/>. Accessed 15 June 2025.

Report of the Open-Ended Intergovernmental Expert Working Group on Indicators and Terminology Relating to Disaster Risk Reduction. United Nations Office for Disaster Risk Reduction, 2017, <https://www.undrr.org/publication/report-open-ended-intergovernmental-expert-working-group-indicators-and-terminology>. Accessed 05 Mar. 2025.

Schwartz, A. Brad. *Broadcast Hysteria: Orson Welles’s War of the Worlds and the Art of Fake News*. Hill and Wang, 2015.

Sergeant-Shadbolt, Jake. *New Zealanders Spending More Time Online than Ever*. 20 Mar. 2025, <https://internetnz.nz/news-and-articles/new-zealanders-spending-more-time-online-than-ever/>. Accessed 26 June 2025. Media Release.

Shari R. Veil, Robert S. Littlefield, Katherine E. Rowan. "Dissemination as success: Local emergency management communication practices". *Public Relations Review*, vol. 35, no. 4, 2009, pp. 449–451.

Smith, Keri. *Wreck This Journal: To Create Is to Destroy*, Perigee Book, 2007.

Spitznagel, Eric. "George A. Romero: "Who Says Zombies Eat Brains?"". *Vanity Fair*, 27 May 2010, <https://www.vanityfair.com/hollywood/2010/05/george-romero>. Accessed 16 May 2025.

"2023 Census Data for Strathmore (Wellington City)." *StatsNZ*, 2023, <https://tools.summaries.stats.govt.nz/places/SA2/strathmore-wellington-city#quick-stats>. Accessed 3 July 2025.

"Steering global audiences through a sea of COVID-19 confusion." *Daylight*, Daylight Group, <https://daylight.nz/project/covid-19-pandemic-response>. Accessed 9 Mar. 2025.

The Days. Directed by Masaki Nishiura and Hideo Nakata, Warner Bros. Japan and Lyonesse Pictures, 2023

The Impossible. Directed by J. A. Bayona, performances by Naomi Watts and Ewan McGregor, Warner Bros. Pictures, 2012.

The Frighteners. Directed by Peter Jackson, produced by Peter Jackson and Jamie Selkirk, Universal Pictures, 1996.

The Lord of the Rings Trilogy. Directed by Peter Jackson, produced by Barrie M. Osborne, Peter Jackson, Fran Walsh, Tim Sanders, New Line Cinema, 2001–2003

Van Zandt, Shannon. "Impacts on Socially Vulnerable Populations." *The Routledge Handbook of Urban Disaster Resilience: Integrating Mitigation, Preparedness, and Recovery Planning*. edited by Michael Lindell, EBook ed., Taylor and Francis Group Routledge, 2019, pp. 63–89.

Wellington Paranormal. Created by Taika Waititi, Jemaine Clement, Paul Yates, New Zealand Documentary Board, 2018–2022.

"'Wellington Paranormal' Transforms the Capital - Screen Wellington." *Wellington NZ*, Screen Wellington, <https://www.wellingtonnz.com/screen-wellington/made-in-wellington/wellington-paranormal-transforms-the-capital>. Accessed 17 Mar. 2025.

What we do in the Shadows. Directed by Jemaine Clement and Taika Waititi, Madman Entertainment, 2014.

Wiles, Siouxsie. "Siouxsie Wiles: How Toby Morris's Covid-19 Graphics Went Around the World". *The Spinoff*, 31 May 2022, <https://thespinoff.co.nz/science/31-05-2022/siouxsie-wiles-how-my-collaboration-with-toby-morris-went-around-the-world>. Accessed 8 Apr. 2024.

Zeisel, John. *Inquiry by Design : Environment/Behavior/Neuroscience in Architecture, Interiors, Landscape, and Planning*. Rev. Ed., New York, W.W. Norton & Company, 2006.

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Fig. 4. Conceptual Model of Pre-Existing Inequity Recovery Trajectories, 2025. Adapted from: Van Zandt, Shannon. “Impacts on Socially Vulnerable Populations.” *The Routledge Handbook of Urban Disaster Resilience : Integrating Mitigation, Preparedness, and Recovery Planning*, edited by Michael Lindell, EBook ed., Taylor and Francis Group Routledge, 2019, pp. 65.

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Fig. 7. Flood Zones on Te Motu Kairangi, Wellington. From: “Flood Zones.” Wellington City Council, 16 Jan. 2020, <https://data-wcc.opendata.arcgis.com/maps/flood-zones-3>. Accessed 8 Mar. 2025.

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Fig. 10. ShakeOut (2023) banner. From: “Almost Half a Million Signed up with One Month to Go until ShakeOut!” *Civil Defence — Te Rākau Whakamarumarū*, National Emergency Management Agency, 19 Sep. 2023, <https://www.civildefence.govt.nz/resources/news-and-events/news-and-events/almost-half-a-million-signed-up-with-one-month-to-go-until-shakeout>. Accessed 4 July 2025.

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Fig. 14. *Mercury-Theatre-Radio-Rehearsal*, PICRYL, 3 Nov. 1932. <https://itoldya420.getarchive.net/amp/media/mercury-theatre-radio-rehearsal-1938-2-650308>. Accessed 5 July 2025.

Fig. 15. Facebook screenshot of promotional post for CDC’s 2011 zombie blog. CDC, 2011. From: Kravand and Silver, “Zombies gone viral: How a fictional zombie invasion helped CDC promote emergency preparedness.” *Case Studies in Strategic Communication*, vol. 2, 2013, pp. 34–60. <https://cssc.uscannenberg.org/wp-content/uploads/2013/10/v2art3.pdf>. Accessed on 3 Mar. 2025.

- Fig. 16. *Preparedness 101: Zombie Pandemic*. Graphic novella cover. CDC, 2011. From: Kruvand and Silver, “Zombies gone viral: How a fictional zombie invasion helped CDC promote emergency preparedness.” *Case Studies in Strategic Communication*, vol. 2, 2013, pp. 34–60. <https://cssc.uscannenberg.org/wp-content/uploads/2013/10/v2art3.pdf>. Accessed on 3 Mar. 2025.
- Fig. 17. *Thank you driver*. From: “This week, to celebrate Bus Driver Appreciation Day.” Metlink, 13 Nov. 2023, <https://www.facebook.com/metlinkwgtn/posts/this-week-to-celebrate-bus-driver-appreciation-day-on-november-16-we-are-introdu/796695879138262/>. Accessed 6 Sep. 2024.
- Fig. 18. Wellington Kerbside Recycling Bins. From: “It’s a Burning Question - What day is Bin Day??” *Wellington - LIVE*, 26 Dec. 2023. <https://www.facebook.com/WellingtonLIVENZ/posts/its-a-burning-question-what-day-is-bin-day-for-wcc-rubbish-and-recycling-are-not/713690657528003/>. Accessed 6 Sep. 2024.
- Fig. 19. Kate Winslet in *Contagion*. Screenshot from: *Contagion*, Directed by Steven Soderbergh, Warner Bros. Pictures, 2011.
- Fig. 20. Partygoers in distress. From *BrainDead*. Directed by Peter Jackson, Trimark Pictures, 1992.
- Fig. 21. O’Leary and Minogue taking selfie with a creature. *Wellington Paranormal*. Created by Taika Waititi, Jemaine Clement, Paul Yates, New Zealand Documentary Board, 2018–2022, From: “Wellington Paranormal Heads to the US.” *NZ Herald*, 11 Dec. 2020, <https://www.nzherald.co.nz/entertainment/jemaine-clement-and-taika-waititi-wellington-paranormal-heads-to-the-us/XOCIBIC2UZGLTF5HZQSCXUDPTI/>. Accessed 5 July 2025.
- Fig. 22. Wentworth, C.B. Page from personal copy of *Wreck This Journal*. From “Wreck This Journal: Letting Go.” 10 Aug. 2011, <https://cbwentworth.wordpress.com/2011/08/10/wreck-this-journal-letting-go/>. Accessed 5 July 2025.
- Fig. 23. Fae, Erin. *Zine-o-Mat*. 2018. From “Zine-o-Mat.” *Erin Fae*, <http://www.erinae.com/portfolio/zine-o-mat/>. Accessed 15 June 2025.

- Fig. 24. Multiple issues of Pānui Te Motu Kairangi. 2020–2023. From: “Community Newsletter.” *Miramar & Maupuia Community Centre*, <https://www.mmcc.org.nz/communitynewsletter>. Accessed 31 July 2024.
- Fig. 25. Morris, Toby. *People Watching*, 2024. From: Toby Morris [@XTOTL]. “People Watching: Public Servants on The Terrace, Wellington, at Lunch on a Friday.” Twitter, 24 July 2024, <https://x.com/XTOTL/status/1815831994657558702>. Accessed 31 July 2024.
- Fig. 26. Morris, Toby. *People Watching* feature for the *Sunday Star Times*, 2024. From: “People Watching.” Instagram, 24 Sept. 2023, https://www.instagram.com/xtotl/p/CxjB9vRS_DL/.
- Fig. 27. Moore, Sam. *Beastly Beth*. Samuel Moore. From: People of New Zealand. A&U New Zealand, 2019, pp. 131.
- Fig. 28. Guther, Max. Article image for *The Baffler*, 2021. From: <https://maxguther.de/>. *Max Guther: Work*. Accessed 15 June 2025.
- Fig. 29. In-game poster from *Portal 2*. 2011. From: “The Brilliant Posters of Portal 2 [Large Images].” boredlike, *Reddit*, 25 Aug. 2012, https://www.reddit.com/r/gaming/comments/yt0o7/the_brilliant_posters_of_portal_2_large_images/. Accessed 15 June 2025.
- Fig. 30. Carson, David. Cover for Issue #19 of *Ray Gun Magazine*, 1994. From: “Vintage Raygun Magazine ‘Issue #19’ Jesus And Mary Chain Cover.” Jointcustodydc, <https://jointcustodydc.com/products/vintage-raygun-magazine-issue-19-jesus-and-mary-chain>. Accessed 15 June 2025.
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Appendix A

Ethics Approval for user testing



12/06/2025

Dear: Miss Paige Koedijk

Re: Low Risk Notification - 4000030873 - Mitigating Impacts of Disaster through Community Resilience: Whakawhanaungatanga vs. Zombies

Thank you for submitting a low risk notification for your research/teaching/evaluation.

This email is to acknowledge receipt of the low risk notification and to inform you that the details of your project have been recorded in our database for inclusion in the annual reports to the Health Research Council Ethics Committee (HRCEC) and the Massey University Research Committee (URC).

You may proceed with your research, though it is advisable to provide a couple of weeks before commencing, as all low risk notifications are checked for completeness and clarity by a Research Ethics Advisor. You may be contacted if your application is incomplete and/or further clarification is required.

The low risk notification for this project is valid for a maximum of three years.

Please notify me if situations subsequently occur which cause you to reconsider your initial ethical analysis.

If a sponsoring organisation, funding authority (e.g., the Health Research Council) or a journal require evidence of ethical approval from a Human Ethics Committee (with an approval number), you need to complete a full Massey University Human Ethics application to be reviewed and approved by one of our Human Ethics Committees. Applications must be submitted and approved prior to the commencement of the research.

Please note that travel undertaken by students must be approved by the supervisor and the relevant Pro Vice-Chancellor and be in accordance with the Policy and Procedures for Course-Related Student Travel Overseas. In addition, the supervisor must advise the University's Insurance Officer.

If you have any concerns about the conduct of this research that you want to raise with someone other than the researcher(s), please contact the Research Ethics Office, email humanethics@massey.ac.nz.

Please include the following statement on all public documents (e.g., information sheet, consent form) related to your project:

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.

If you have any concerns about the ethical conduct of this research that you want to raise with someone other than the researcher(s), please contact Massey University Human Ethics by email: humanethics@massey.ac.nz.

I wish you all the best in your research, teaching or evaluation activities and appreciate your thoughtful consideration of ethics principles and practices.

Ngā mihi nui,

Professor Tracy Riley
Acting Chair, Research Ethics Chair's Committee

Appendix B

User's scanned QR code to bring them to this google form. The context and questions are captured here.

The Peninsula - Feedback form

The Peninsula: Bringing you the latest accounts and notices from the community that's surviving and thriving the zombie catastrophe!

While the world succumbs to the zombie catastrophe, Aotearoa refuses to be swallowed up by the shuffling flesh eating horde. In Pōneke, the Miramar Peninsula stronghold has confined the undead to the CBD using the barriers of bays, hills and the fully fenced local airport. Now geographically isolated, the peninsula remains alert in their goal to survive and thrive in this unprecedented disaster using the collective power of Community.

Thank you for your participation in this feedback exercise - your opinions, thoughts and feedback are very important for this research. This should take 5-10 minutes to fill out and I appreciate the time you have set aside to provide input. You will need to have gone through *The Peninsula* prototype prior to filling in this response form.

The Researcher,
Paige Koedijk

YOUR PARTICIPATION

You have been invited by one of my research recruiters, provided with a project overview and given your verbal consent to participate. If you choose to complete the survey, your identity will not be revealed in any part of the study. Though the person who recruited you knows your identity, you remain anonymous to the Researcher. The questions have been structured with keeping the responder's anonymity in mind, though please note that there are generic demographic questions that are mandatory. The Researcher would therefore encourage you to avoid making personal remarks to help preserve your confidentiality.

YOUR RIGHTS

You are under no obligation to fill out this response questionnaire. Participation is voluntary. If you decide to participate, then you have the right to:

1. Stop answering the questionnaire before completion
2. Provide information on the understanding that your response is anonymous

RESEARCHERS RIGHTS

Once you have submitted your anonymous response, you will no longer be able to access your responses for editing. The Researcher can make use of your responses through:

1. A summary of findings
2. Use of direct quotes

CONTACT

Further information about this survey and the project is available from:

The Researcher
Paige Koedijk
p.koedijk@massey.ac.nz

Primary Supervisor
Tanya Marriott
t.marriott@massey.ac.nz

Co-Supervisor
Jason O'Hara
wjohara@massey.ac.nz

Click 'Next' to continue

Next Clear form

Never submit passwords through Google Forms.

The Peninsula - Feedback form

* Indicates required question

Consent

This section is to gather your consent to participate in the response questionnaire for *The Peninsula: Bringing you the latest accounts and notices from the community that's surviving and thriving the zombie catastrophe!*

Only Paige Koedijk and her supervisors, Tanya Marriott and Jason O'Hara, will have access to your anonymous response.

I have read and understood the description of this research project. On this basis, I agree to take part in the response questionnaire. I understand that once submitted my personal data will remain confidential at all times. I understand that in the context of this questionnaire, only the individual who recruited me to participate knows of my identity and that your contact details will not be saved by using this form. Paige Koedijk, the researcher, will not have access to my contact details. I consent to the publication of the results of this survey with the understanding that my anonymity will be preserved. I understand that I am free to withdraw from the survey at any time up until the point at which I complete and submit this questionnaire. Please note that submitting the questionnaire is taken as your informed consent to participate in the evaluation.

I have read and understood the consent section above. *

Yes

What were 3 things you realised or would like to respond to about *The Peninsula pānui*?
The Peninsula is an allegorical pānui that illustrates whakawhanaungatanga in response to disaster events. The pānui is designed to address a gap identified in Aotearoa's public emergency management strategies, where storytelling acts as an effective communication tool to motivate readers into nurturing community connections.

1. *
Your answer _____

2. *
Your answer _____

3. *
Your answer _____

What is your age range? *

18 - 25
 26 - 35
 36 - 45
 46 - 55
 56 - 65
 65+

What is your ethnicity? *

Your answer _____

What is your gender identity? (Optional)

Your answer _____

Back Submit Clear form

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Student's name: Paige Koedijk

Thesis title:
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Whakawhanaungatanga vs. Zombies

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