Now is Drawn by the Past

The Lines Between Us and Nature

Figure 1: *Wellington in Lines*

Picture a garden.

Whichever garden comes easiest, it doesn't have to be real.

What can you **hear**?
What can you **smell**?
How does the air **feel**?
What **makes** it a garden?
What's **not there** that makes it a garden?

What marks the **end** of the garden?

Hold that thought, we will come back to it.

In 1841, William Mein Smith drew a line on a piece of paper that would come to define Wellington's relationship with nature.

William[1] was the chief surveyor for The New Zealand Company, tasked with divvying up the most fertile and scenic land to the incoming wave of settlers[2]. On one of his maps, "Plan of the City of Wellington" **(Figure 3)**, he drew numerous little boxes in fine looking grids, setting out spaces for court houses, gaols, abbatoirs, four kinds of churches, and just about everything else that was needed for a fine looking European city[3]. Around this, enclosing an area of shaded pink, he drew the line.

This line, from then until now, would mark the "public reserves" – **the Town Belt**.

When you live inside a city, they simply feel like the way that land must be. These streets have been, are, and always will be. These colours are natural facts of the world. These towers must be the way that our spaces are built. This is what density looks like.

But no.

These lines were drawn by someone.

I don't suspect that William knew he was defining Wellington's spaces for hundreds of years when he drew those lines. I'd say it was furthest from his mind that a little dash in the corner, the edge of a box, would come to be the street that I now live on – a street so steep that engines howl as they climb it. I'd say he didn't care to think about it, just as he didn't care to think of all the Māori people that already lived where that *fine looking European city* was to be built. But he drew his lines in ink, signed his fancy little name in the corner, and so hundreds and then thousands and now millions of people have seen his lines whether they know it or not.

You see his lines in the borders they established.
Between settler and Maori.
Between human and nature.
Between inside and out.

And covering the page, coloured in pink, every border in one.
The Town Belt.

Return to your garden.
What marks the **end** of your garden?
Who drew those lines?

1 I reference people in text by their first, or most commonly used name. I believe that reference by last name only serves to mythologize historical figures, where as I seek to only see them as humans. To avoid confusion, last names are still used for reference citations.

2 Hemi, "Wellington Botanical Gardens."

3 Smith, "Plan of the City of Wellington."

Mauri Moe – What Makes a Garden?

In the words of the Wellington City Council: “The area where the Botanic Garden now sits has been an important site for generations”[4].

After the establishment of William’s plans for Wellington, the Māori communities living in the areas ‘bought’ by European settlers were removed[5]. Those left on what was now deemed “public reserves” for the settlers were left concerned and confused about their future. They were now trespassers on the whenua that they cultivated, foraged, hunted and fundamentally lived on[6].

Three years later, the roots of the Botanic Garden were established, directly claiming 5 hectares of land in the “public reserves” on behalf of the crown[7]. Māori people were made officially unwelcome in the area, with the next decade seeing a gradual back-and-forth of land rights until the land was ‘donated’ for the grounds of a Wesleyan industrial school. The school failed, and in 1869 the Botanic Garden Bill claimed the land once and for all (settlers), to be managed by James Hector as the Wellington Botanic Garden. Around the same time, to quote the history section of the Botanic Garden’s web page, the Māori communities were “displaced from their pā[8]” **(Figure 2)**.

The whenua that was once “covered in dense [native] podocarp forest including rimu, totara, and matai”[9] – and used chiefly by Māori people – was transformed into 25 hectares of “Garden for botanical, horticultural and **acclimatisation** purposes”[10], still bearing these marks today in the conifers that James planted[11].

Figure 2: *Wellington Botanic Garden's history section as of 23 May 2023*

4 Wellington Gardens, “Wellington Botanic Garden Ki Paekākā.”
5 Wellington City Council, “History of Wellington.”
6 Hemi, “Wellington Botanical Gardens.”
7 Ibid.
8 Wellington Gardens, “Wellington Botanic Garden Ki Paekākā.”
9 Ibid.
10 Hemi, “Wellington Botanical Gardens.”
11 Nathan, *James Hector*, 19.

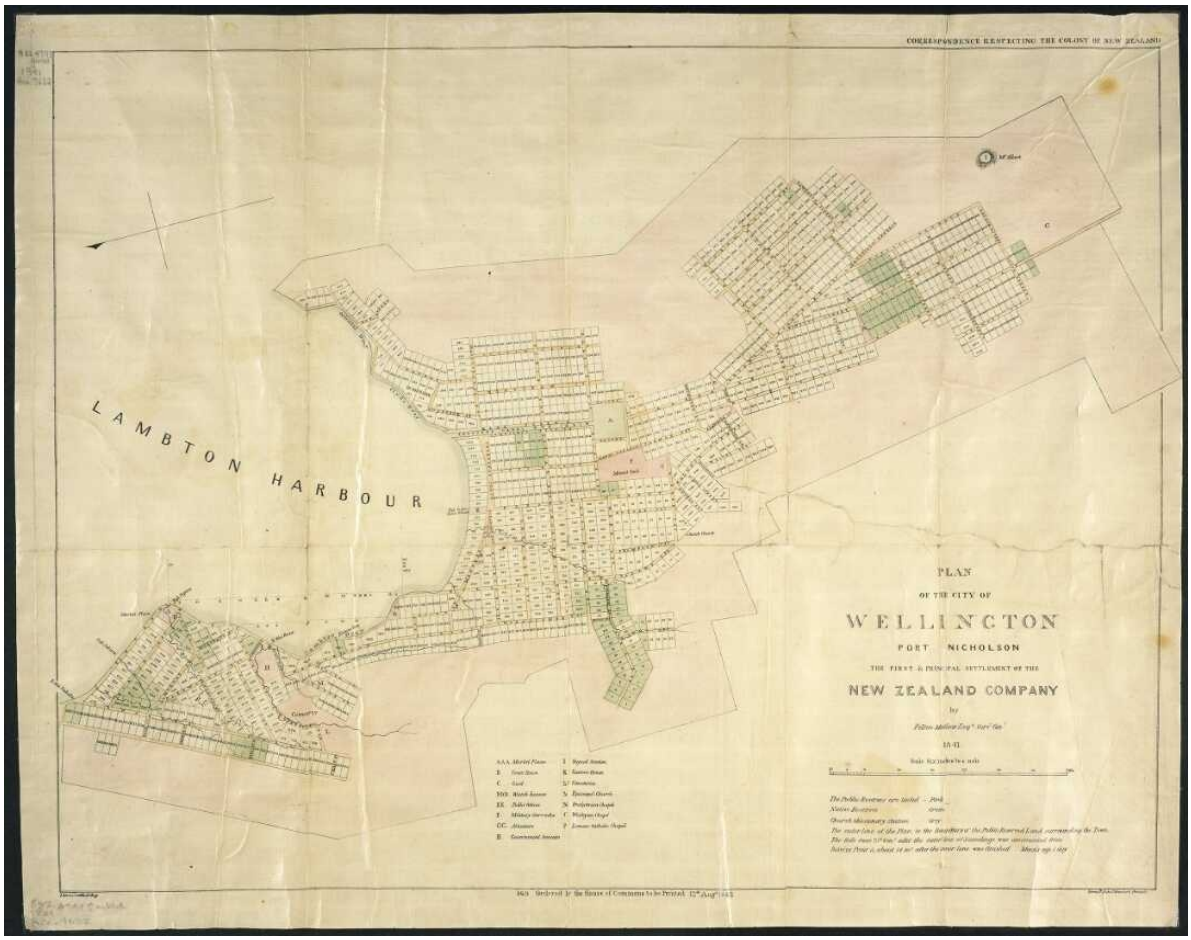

Figure 3: *"Plan of the City of Wellington" by William Mein Smith*

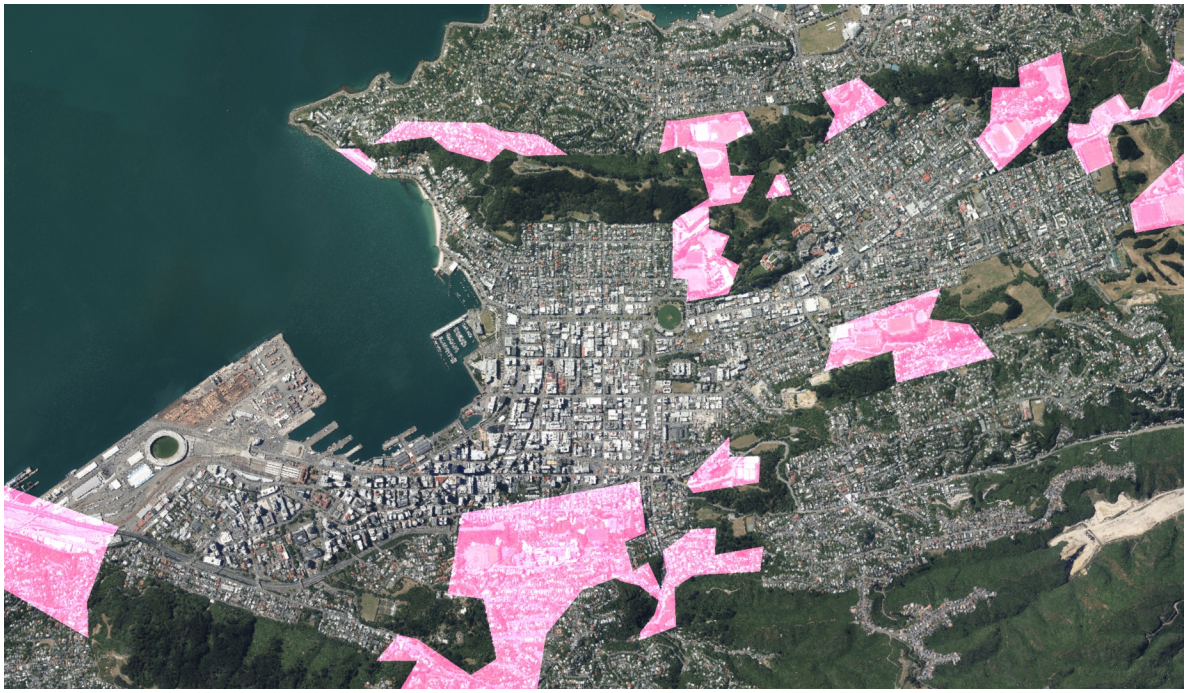

Figure 4: *2021 Highlighted Urban Breakthrough compared to* ***Figure 3***

With the Botanic Garden and the Town Belt established and outlined, Wellington continued to densify. Over the next century, the population grew, the settlers spread, and towers began to fill the skyline[12]. Anywhere not marked in pink on William's map was fair game, including spaces on the other side of the reserve border. The coming development pushed Māori communities further and further from the new capital of New Zealand, regardless of any official land ownership[13]. And, of course, these areas needed roads connecting them to Wellington central, and those roads needed infrastructure, and so why not use that infrstructure to build more homes? Gradually, the public reserve of the town belt was carved up. It was either boxed in as a natural reserve, under control of the crown, or taken for residential and commercial use. All of it woven with asphalt and concrete.

See, the problem with drawing a line around a natural area, preserving it and marking it as special, is that everything outside of that line is inherently not those things. Everywhere else is productive, buildable, liveable space **for people**. Whatever ecological role the spaces hold or could hold is irrelevant

Conservation areas are bordered, you can see them clearly.

Nature goes there, and we go **everywhere else**.

In her book *Walls Have Feelings*, Katherine Shonfield discusses a similar process with the establishment of London's 'Green Belt':

> *"...as an act of exclusion it puts a premium on the protected land... behind the imposition of this border is the sense of dirt which must contained in its place..."* [14]

This leads to the what we see happening to Wellington's public reserve **(Figures 3 and 4)**. Over time, that pink area got in the way of a road, or a water pipe, or a house. It's only a small imposition, a tiny reduction to the natural space. People need it, and so they take it, and they never give it back.

And again. And again. And again.

The hard border between us and nature creates a false dichotomy. It teaches us that spaces are either natural and preserved, or they are ours. Worse, it teaches us that if we need more space, we must take it from nature. In Katherine's words:

> *"[Built] centre and [natural] periphery are not just differentiated by an edge, they are fundamentally opposed types, land and sea. The possibility of mixing land and sea threatens the unordered chaos of drowning: the edge between the two must clearly be maintained at all costs."*[15]

12 Wellington City Council, "History of Wellington."

13 Hemi, "Wellington Botanical Gardens."

14 Shonfield, *Walls Have Feelings*, 132.

15 Ibid.

Even in the conservation spaces that remain through this process, that does not guarantee the preservation of an ecosystem. Ōtari-Wilton's Bush, one of the four gardens managed by the Wellington City Council, "is the only public botanic garden in [Aotearoa] dedicated solely to native plants"[16]. All other botanic gardens across the country represent either some form of novel ecosystem[17], or entirely introduced species. Of the 28 plant zones in today's Wellington Botanic Garden ki Paekākā, only 5 consist mostly or entirely of native plants[18]. This throws a shadow of doubt over whether these spaces are truly functional ecosystems in Aotearoa's context, or merely simulations of them. How much are they truly adding to our environment, and who do they benefit? I cannot help but think of the founding purposes of James' Botanic Garden: **botanical**, **horticultural** and **acclimatisation**. Science, farming, and European comfort.

Wellington Botanic Garden ki Paekākā, like much of Aotearoa, is now reckoning with the legacy of its foundation in European colonization. The garden's new place name "Paekākā… realm or perch of the kākā"[19] reflects this:

> *"It acknowledges early Māori history when kākā were abundant and often trapped for food by local Māori… its use will restore the original Māori name for the area."*
> - Councillor Jill Day[20]

Thanks to restorative efforts, kākā are once again widespread in Paekākā, and are wreaking havoc on the introduced trees of the Wellington Botanic Garden[21].

16 Wellington Gardens, "Ōtari-Wilton's Bush."

17 A functional ecosystem consisting of a mixture of native and introduced plants. The concept of a novel ecosystem is discussed in more depth in Future Ecologies. *Nature, By Design.* Part 3

18 Wellington Gardens, "Wellington Botanic Garden Ki Paekākā."

19 Wellington City Council, "Council Adopts Paekākā as the Name for Wellington Botanic Garden Precinct."

20 Councillor Jill Day in ibid.

21 Molyneux and James, "No More Redwoods."

Mauri Oho – How to Break Lines

In their writing on mauri, Taina Whakaatere Pohatu describes the three states of Māori wellbeing[22]. Briefly, it moves through:

- **Mauri Moe –** Anxious, hurt fragility : A time of reflection and restraint.
- **Mauri Oho –** Awoken, eager sparks : A time of excitement and beginnings.
- **Mauri Ora –** Committed, adept action : A time of motivation and follow through.

Nature's wellbeing has been wounded. It has been trapped in a state of decaying mauri moe. We must allow the next phase to come, the spark of change.

Far from opposing forces, nature and cities were working together when the first clusters of people formed. Cities brought exciting opportunities for plants in particular, creating permeable membranes by way of roads and disturbed ground, even entirely new environments to adapt to[23]. Never before had plants been able to move so freely and interact so widely. They were even traded and cultivated across continents.

Only when we began to see nature as beneath us did cities become the deserts that they are now[24]. The more we built, the more we viewed nature not as home, but as wilderness to be feared or tamed[25]. With this also came the concept of introduced and invasive species and 'weeds', foreign dangers that threaten our established way of life. They are no longer the symbiosis of our built spaces, but the refugess that cross our borders without permission.

'Native' and 'introduced' are somewhat misleading terms in this light. An introduced species is not inherently damaging to an environment, just as a native species is not inherently good. They are simply facets of nature, and how they fit together in the wider context of their environment and the world is the important aspect.

Consider gorse. Historically, it was introduced to Aotearoa by European settlers as hedgerow[26]. Given the new environment, gorse escaped its traditionally docile nature and exploded uncontrollably across pasture, earning it the term 'invasive'. However, as a hardy, hostile scrub that is able to effectively resist human and cattle disturbance, it has become a key base of beech forest restoration[27]. It is a plant with a high appetite for sunlight and a low-growing profile, meaning that trees are able to enjoy a sheltered life amongst its thorns before reaching high above it and shading it out of the area. As a member of the pea family it also fixes nitrogen to the soil, improving degraded pasture to make it suitable for complex forest ecosystems.

22 Pohatu. "Mauri" 5-7

23 Müller. *Urban Biodiversity and Design*. 178

24 Valades, *Great Chain of Being*.

25 Ibid. 66

26 Williams and Karl, "Kanuka and Gorse Succession," 31.

27 Ibid. 32

It is a plant that was introduced relatively recently to Aotearoa, but it is only 'invasive' in that it invades artificial pastures and fosters the growth of young native forests.

Forests that are resilient in Aotearoa's climate.

Forests that welcome the return of kākā.

It is not a perfect solution, but – given people's tendency to clear cut kānuka scrub in their pastures – it is the solution that nature has found[28].

Figure 5: *Line-Defying Rātā*

28 Williams and Karl, "Kanuka and Gorse Succession," 37.

This is the mauri oho of nature.

Nature does not care of our lines on maps or the boxes we try to classify it into. It will find a way to grow through them. Even useful terms like ‘native’ and ‘invasive’ are only important as long as they reflect the true effect that those species have, not some arbitrary point in history when they came to a space. Instead of trying to re capture a static past, we need to allow what comes next.

Nature is the ultimate dissolver of boundaries.

All we need to do is be humble enough to let it.

We must reckon with the painful truth that if there are truly invasive species, those that only disturb and destroy spaces that they enter, we are the top of the list.

With this, the line that William drew in 1841 can finally begin to fade.

Figure 6: *Inosculation in Plane Tree Cube, OLA*

Mauri Ora – Drawing Without Lines

The mistake that we often make when we draw is imagining that these lines can last forever. In William's eyes, his city was simple, elegant and fit for purpose; plenty of churches to go around and easy to navigate. They were certainly detailed, one of his maps even includes topographical information, acknowledging Tangi Te Keo and other hills as limiting factors[29]. In a twisted, narrow way, his plan was fit for purpose, the purpose of quick, efficient settlement and use of space.

But over time, his plans became codefied, mythologized even, by roads and fences and houses. Now, they are restrictions handed down from the past, re-enforcing the racial and ecological oppression that William drew them with. It was plainly not for William to know what he was doing, or why is was so important. He was only human, with his own limited view. William's mistake was not in drawing these lines, but to draw them in cement.

This is a tradition that we continue today. Our buildings are attempting to be static islands, unable to adjust with the rise and fall of the tide. We draw them with lines, and numbers, and everything else that we have come to view as simple facts. In doing so, we delude ourselves into thinking that these spaces can be so absolute. Cities today lack plasticity. If we can call them ecosystems, they are dysfunctional, parasitic, and unable to bend to the forces around them[30]. They pull life from their surroundings and consume it, spewing out harmful waste in return. These lines between us and nature are hurting us all. They are trapping our cities in a box.

Through concrete, steel and asphalt, they have entombed the land.
With soil, plants and mycelium, they could be resilient, living, and still productive.
But we must finally accept that they can never be static,
No matter how much concrete we pour.

As we break down the lines between us and nature,
We must break down the idea that a space can be static.
A road is not forever.
A building is not permanent.
Our world is fluid whether we like it or not.

If we draw with this in mind, if we build change and growth into our spaces,
Our cities could truly live.
We could really start to **live** in them.

Now is drawn by the past, but the future is painted by us.

29 Smith, "Plan of the Town of Wellington."

30 Breuste, Jürgen, et al. *Urban Ecosystems*. 16; Müller, *Urban Biodiversity and Design*. xv

Tihā – Endnote

Picture a forest.
Your favourite forest in the world.

How do you **feel**?
How does it feel to **breathe**?
What does the **rain** do as it lands by you?

Now look closely.
Can you hear it through the trees?
Your city is calling you deeper into the woods.

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