
BREATH OF LIGHT
Northern Gateway Wellington
Kristin O'Sullivan Peren
ISTHMUS - DUNNING THORNTON - KWANTO

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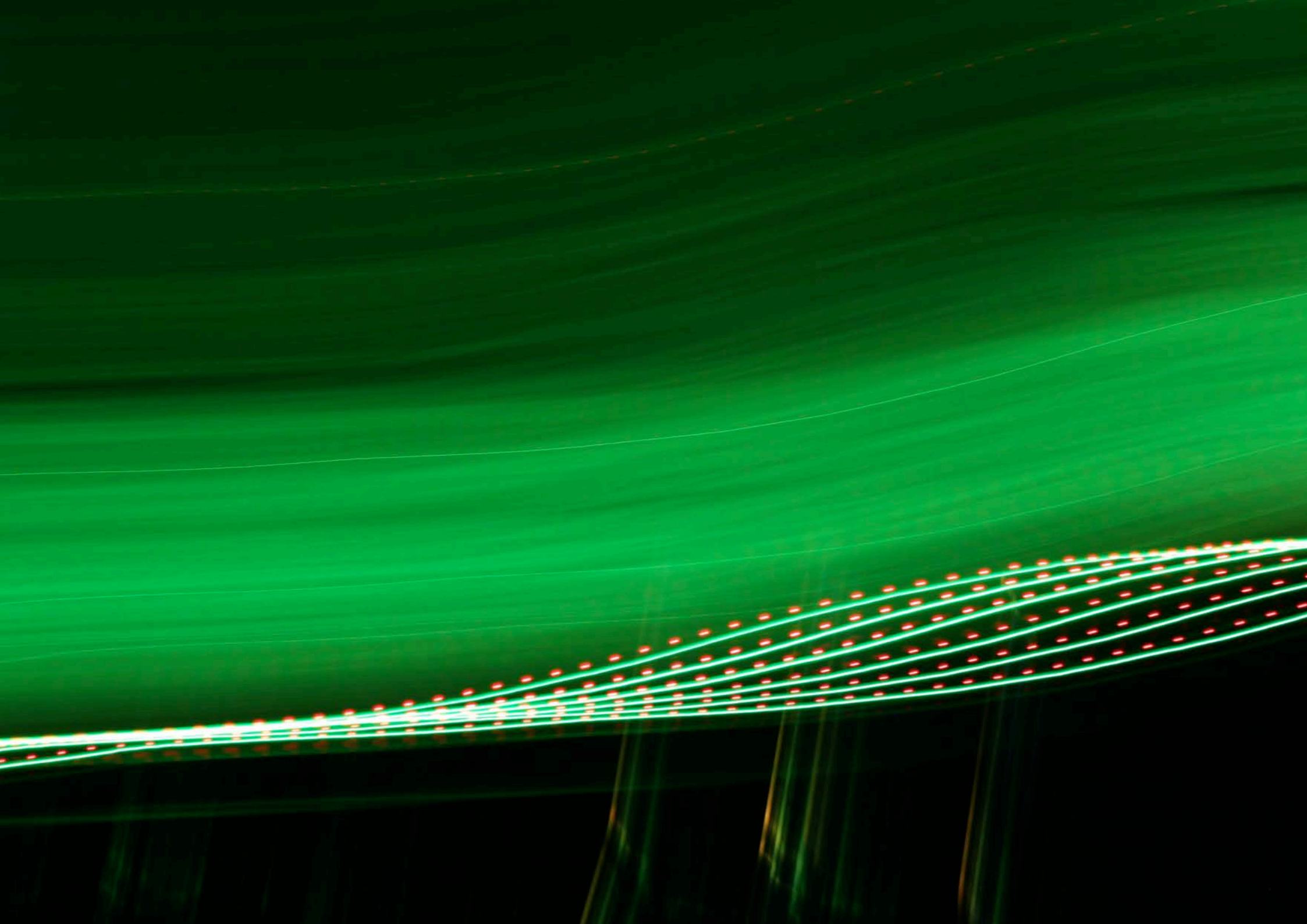


# FOREWORD- RESPONSIBILTIES & RECLAMATIONS

Ecological concerns predominate in both the prints and sculpture of mid-career New Zealand artist Kristin O'Sullivan Peren. Whether figurative or abstract, Peren's work engages us in considerations of our actions and their consequences in relation to the environment and the sense of identity this nurtures.

Certain concerns dominate the sculptural expressions of New Zealand Aotearoa. These concerns centre upon the resources of a country that promotes itself as clean, green and democratic.

Kristin O'Sullivan Peren challenges this promotion through prints and sculpture which articulate pressing environmental concerns, particularly the balance between sustainable practices and progress. While her 'language' is abstract contemporary, it includes a keen intelligence of this country's historical roots. Peren's work is as much informed by the geological formation of Aotearoa as it is by its several waves of tenancy, particularly the European.

New Zealand's colonial history was dominated by cultural deracination, land acquisition, clearing, farming and the introduction of invasive species. In the post-colonial period technology has allowed farming modes to intensify beyond that which is sustainable in the long term, with scant regard for contingent environmental problems –irrigation, pesticide and fertiliser use, run-off and erosion as well as the continued degradation of native ecosystems and loss of indigenous flora and fauna.

Peren's 'Islands' prints consider these issues, overtly as well as obliquely. These broody monoprints explore the body of the land as untouched and dense, mass and structure, and simultaneously contrast these with suggestions of solid and open spaces, softly ambiguous, convex and concave. These 'Islands' are not the paradisical landfalls of settler dreams and Heaphy-Kinder-Fox-style illustrations. They are double-edged: sumptuous black yet wild-sublime, more symbolic than naturalistic. They are not visual renderings. They concern form born from tectonic up-thrust. And while we still have many beautiful islands around the landfall New Zealand Aotearoa, how many retain their pristine state? Peren's are anxious 'Islands', metaphors concerning the wider land use by its several successive tenants.

Peren states that she is constantly amazed at the beauty and design in nature and alarmed at human practices that disregard these inherent properties. "I am," she says, "interested in the natural sciences of growth and decay, geology and natural history, and in the balance between sustainability and progress. As the 'Islands' prints and sculpture series, as well as the major sculpture, Papakura (2005-08), demonstrate, I am drawn towards and celebrate the inextricable duo of land and light."

Papakura (2005-08), which translates as red or glowing earth, is perhaps Peren's most substantial expression of her concerns. Composed of three huge, highly organic, epoxy resin hulls, the work is sited limpet-like on the flank of a starkly elegant public building in Queenstown. They carry the fingerprints of their maker and thousands of lights, like fossil filaments caught in amber. Each of the three forms host an elaborate composition of six rods containing over 22,000 light-emitting-diode (LEDs), electronically controlled and designed to deliver an ever-changing dance of spirits. In terms of intention, scale and impact, Papakura confirms Peren as a multi-skilled and gifted artist.

"From start to finish Papakura took nearly three years, a period of total absorption, supported by several communities and my family. The chemical complexities of working with the resin and the composition of thousands of LED light sequences were often taxing because it was all new ground. But the learning absorbed during this process remains with me, inestimable, and will, I believe, serve well in the achievement of the Gateway sculpture, Breath of Light in Wellington, especially the kinetic washes of LEDs which will make the work highly visible without being a distraction on its particular site at the confluence of several major movement networks of rail and road."

"Initially I gave the proposed sculpture the working title of Breath of Light because my concept involves the idea of restoring light and substance to this very specific Wellington site. The whole region is prone not only to major earthquakes affecting all the communities in and around the Hikurgani Trough, but also the collision pressures between the Pacific Plate and the Australian Plate. The Pacific Plate is being subducted, literally pulled under the Australian Plate and is compressing the Wellington Region. My three-part sculpture (evocative of male, female and off-spring) is a re-birth of land; an adding on to the eroded coastline."

Geologists and geographers note that Nature herself is doing just this. Successive 'washes' of newer rocks are being accreted to New Zealand's east coast. A similar accretion is building in and around Nelson. Its natural boulder-bank harbour was used by Maori as a place of safe anchorage for hundreds of years before the arrival of Europeans. Peren comments that once, in the Pipitea area of Wellington (where Parliament now stands) over a thousand Maori once cultivated and sold crops in the area and beyond as far as Sydney but that they were eventually driven into the hinterlands with the arrival of Europeans.

And because of the sculpture's proximity to several traditional Maori Pas and the nature of her proposed materials, recycled plastic rubbish, and with the guidance of the Sculpture Trust, Peren sought advice and comment from several Kamatua as to the potential impact of her work in relation to local iwi.

"I grew up in Rotorua and fully appreciate and respect the importance of such protocol. It was during this research that I began to question the appropriateness of my working title, Breath of Light. I found out that it was in fact the name of one of the first ships carrying Europeans into Wellington. I began to question the applicability of an Old World coinage for this newer world. Aotearoa is, after all, nascent – still growing."

While explaining her concept to one of her protocol sources, Liz Mellish, the latter commented that the work would "restore a breath of light" to the area. "Our conversation was almost metaphoric," Peren says, "But, for me, it re-affirmed the importance of light in relation to life and communities and the relevance of my proposed sculpture. I owe the work's new title and my thanks to Liz Mellish because she graciously confirmed that it would indeed be a grounded work, and sit well in a site-specific geography, surrounded by the Te Wharau Range and between the Waitohi Stream and the Kaiwharawhara."

An evolving ecology

The basement rocks of Wellington are largely composed of Greywacke (hardened sandstone and mudstone with Chert and Pillow lava elements) in organic forms. Peren's work will also be built of a composite material – rubbish, garnered from the communities of Wellington and forged into rectangular Byfusion blocks. Accordingly, just as the central city is built on reclaimed land, raised up after the major earthquake in 1855, Peren's sculpture will also evoke a mélange of landforms - formed and deformed by earthquakes. In addition, she has been working with a botanist. Together they have devised an adapted hydro-seeding technology to impregnate certain levels of the sculpture with indigenous plant seeds. These will germinate and, in effect, reclaim the manufactured islands and return them to nature.

Peren has commented,

"The work involves a delightful irony. We, the contributing communities, and I do mean to involve them, will be placing recycled rubbish on the land, as opposed to using it as landfill. We will be creating 'islands' of rubbish. But these will eventually be populated by local flora and fauna, almost in reverse of the previous waves of land acquisition and, therefore, an evolving ecology."

The constituent islands of the proposed sculpture, situated at the confluence of major movement networks of land, sea and sky, will both evince and critique land acquisition – natural and manufactured – so that the work will resonate on several levels. These may well include the building of communities, their use of natural resources and perhaps even our carbon footprints. Built of the aggregated rubbish discarded by Wellingtonians, the work will be both a product of, and a comment on, urban life. Whether passing by car or in a bus or on a train, by ferry or plane, the work may cause viewers to reflect on the importance of space and the responsibilities of tenancy. Then again, the sheer mass of the recycled blocks of plastic rubbish, elegantly washed with a spectrum of LEDs, may cause us to question our claim to being clean and green and examine what we consider worth preserving and commemorating.

Once upon a time public sculpture was the domain of those with the power to dictate what was to be valued and commemorated (often war as opposed to peace). Public sculpture is a relatively new art form in New Zealand but it is no longer 'shaped' by patterns of dominant 'elsewhere' influences and notions of taste. In the recent past public pieces have tended to commemorate the settler culture and accorded little space or credence to traditional Maori art, particularly carving, despite its distinct cultural history and identity, independent of the European tradition.

But time has wrought changes in New Zealand as elsewhere. Building on the back of the moderns, sculpture such as Peren's confirms that we have matured, not only in our grasp of the potential of this art form but also, and perhaps more importantly, in the dialogue (as opposed to dictates) such endeavours can encourage.

Public sculpture, especially those in which communities are involved in some hands-on formative manner, can take on a life of their own if they are owned by and considered relevant by those communities. Peren's work has this potential.

She says,

"Public involvement is central not only to the underlying concept but also to the construction and subsequent life of the work. This involvement aims to encourage people to 'claim' the island structures and through them to recognise the responsibilities of tenancy and custodianship. Parallel to the existing highway, railway and sea-traffic, the work will be visible yet unobtrusive - a communal statement of place."

Breath of Light promises to be aesthetically striking yet unobtrusive, a substantial work, capable of generating reflection beyond its physical presence. This potential is due to the intelligence behind the concept. Peren will make it relevant to the communities and to the site and beyond. Moreover, this artist has proven her ability to deliver.

Kristin O'Sullivan Peren lives and works on the land (in Central Otago). She is a land artist and her art concerns the light and the dark. Ultimately, her work celebrates and functions as visual analogues for the life sources of light, land and water. The creative processes involved in her printmaking and sculpture are, necessarily, both time-consuming and labour-intensive and indicative of her central thesis: we have to invest in and constantly scrutinize the balance between sustainable ecological practices and notions of progress in relation to the land and its inhabitants.

Dr. Cassandra Fusco
NZ Editor World Sculpture New Craft Arts
International Contributor


Ahi-parera
Hikoikoi Pa
Site of battle of Puhara keke-tapu, between Ngai-Tahu & Ngati-Kahungunu
Ohiti Pa
Pitoone Village
Wai-hinahina
Half Way House
Ngau-matau
Lowry Bay (Whiorau)
Te Ana-puta
Paparangi
Cliffords Stockade
Johnsonville
(Johnson's Clearing)
Ngamokopuna
Matiu (Somes Id.)
Kahungunu Cave
Te Papa-o-Tara
Pararorangi
Tahataha
Te Ana-o-Roa
Waitohi
Nga-uranga Village
Mount Misery
Oruamotoro
Burial Ground
Port Nicholson
(Te Whanganui-a-Tara)
Okiwi-iti
Papakawhero
Te Wharau Rge
Paerau
Okiwi-nui
Kaiwharawhara Village
Pakuao Stn. & Vilge.
Whakahikuwai Stn.
Tiakiwai Stn.
Te Raekaihau
Raurimu
Pipitea Village
Waipiro
Kumutoto Stn. & Vilge.
Kai-upoko
Omaru-kai-Kuru
Rukutoa
Kai-tawaro
Kau-whakaara-waru
Te Mahanga
Taipakupaku
Te Karaka
Onehunga
Matakitaki Poinga
Makaro (Ward Id.)
Pt Arthur
Paraoa-nui
24
25
29
34

# ARTIST'S STATEMENT

Breath of Light is an evolving ecology; it adds to the land.

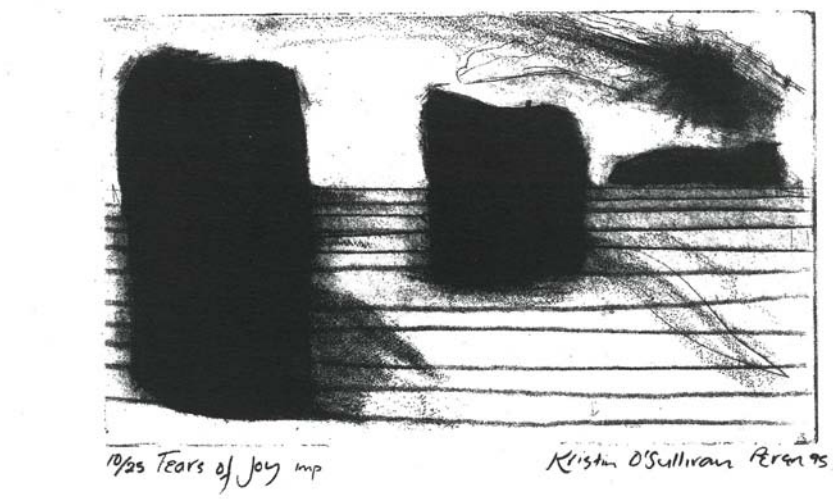
The ancient shape and modern light of the work will complement Wellington's land and harbour. The earth surrounding the project's site has existing patterns that will resonate with its islands and lines. Wellington has geographical ribbons notable in the surrounding coastline and hills. These will be echoed in the light contours. These will work to bring together the community and strengthen the ties between peoples.

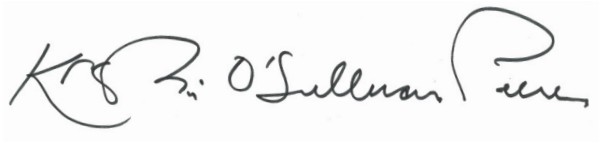
Breath of Light will materially create a sustainable future for herself, and she will also be the beacon, the promoter of a sustainable future. The family of islands will be shaped from a combination of recyclable materials, maintenance-free lights and sustainable native plants. Breath of Light will comprise of sorted and unsorted plastic and lime works. The constituent materials will act as anchorage for the floating islands. The LED lights will connect the sky, the earth and the community that drive, fly and live amongst and pass them In the light of day. The LED ropes, mapping contours high above the site lines of both train and motorway, will convey a balance and structure to those who see it from above.

A documentary will be made during the installation of Breath of Light. This will work to educate the communities involved about plastic and the importance of recycling. The documentary will archive, promote and sustain interest in the project and encourage people to understand the sustainable imperatives involved. People will be empowered to sustain their own future. New Zealand's capital city's gateway is an ideal place to promote this type of community outlook – literally, a breath of light.

Breath of Light will add to and ultimately transform the land. This process, and the democratic nature of the sculpture, will restore the cultural integrity of the site.

Consider this new contour as a vehicle for a new community.



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12 August 2010

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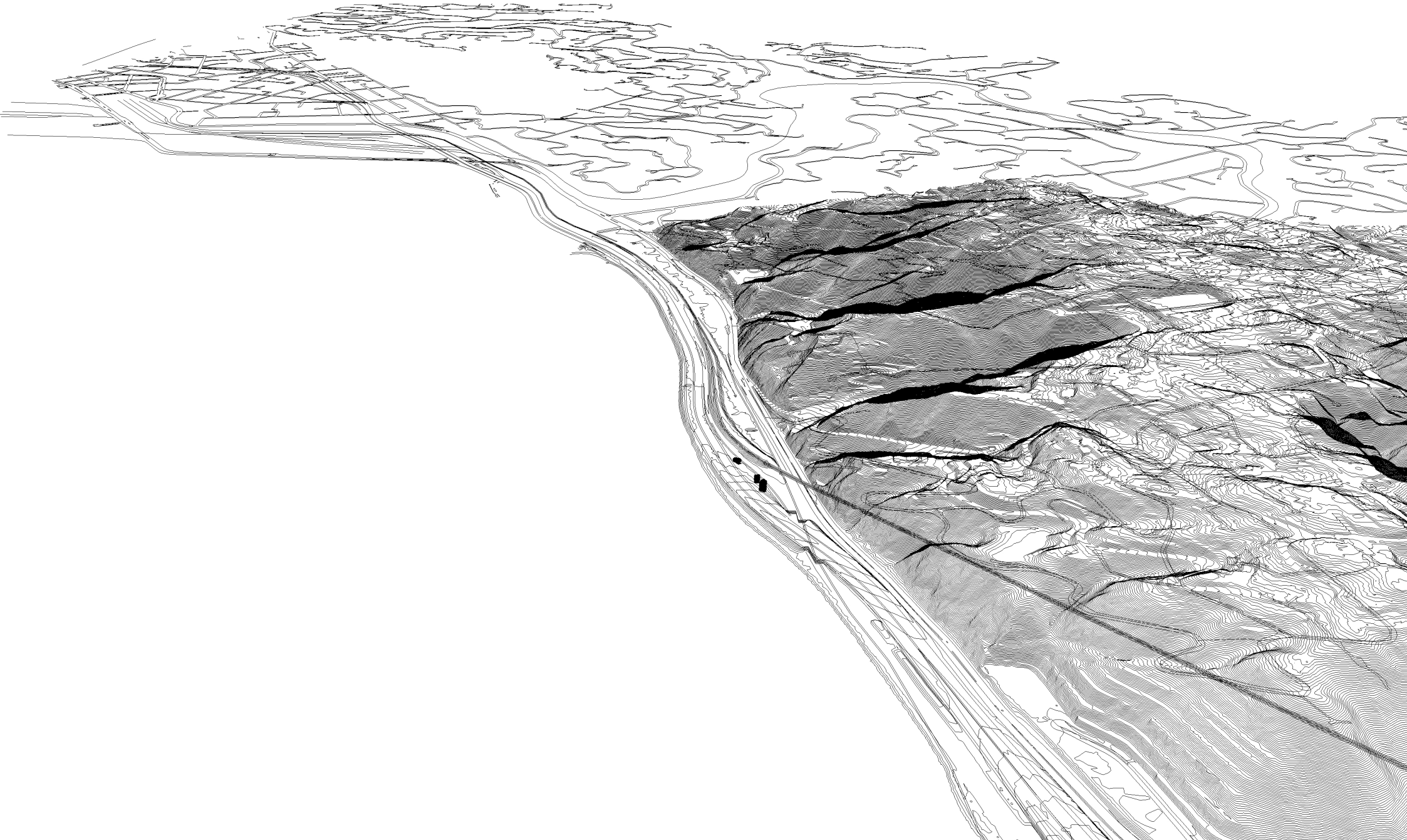
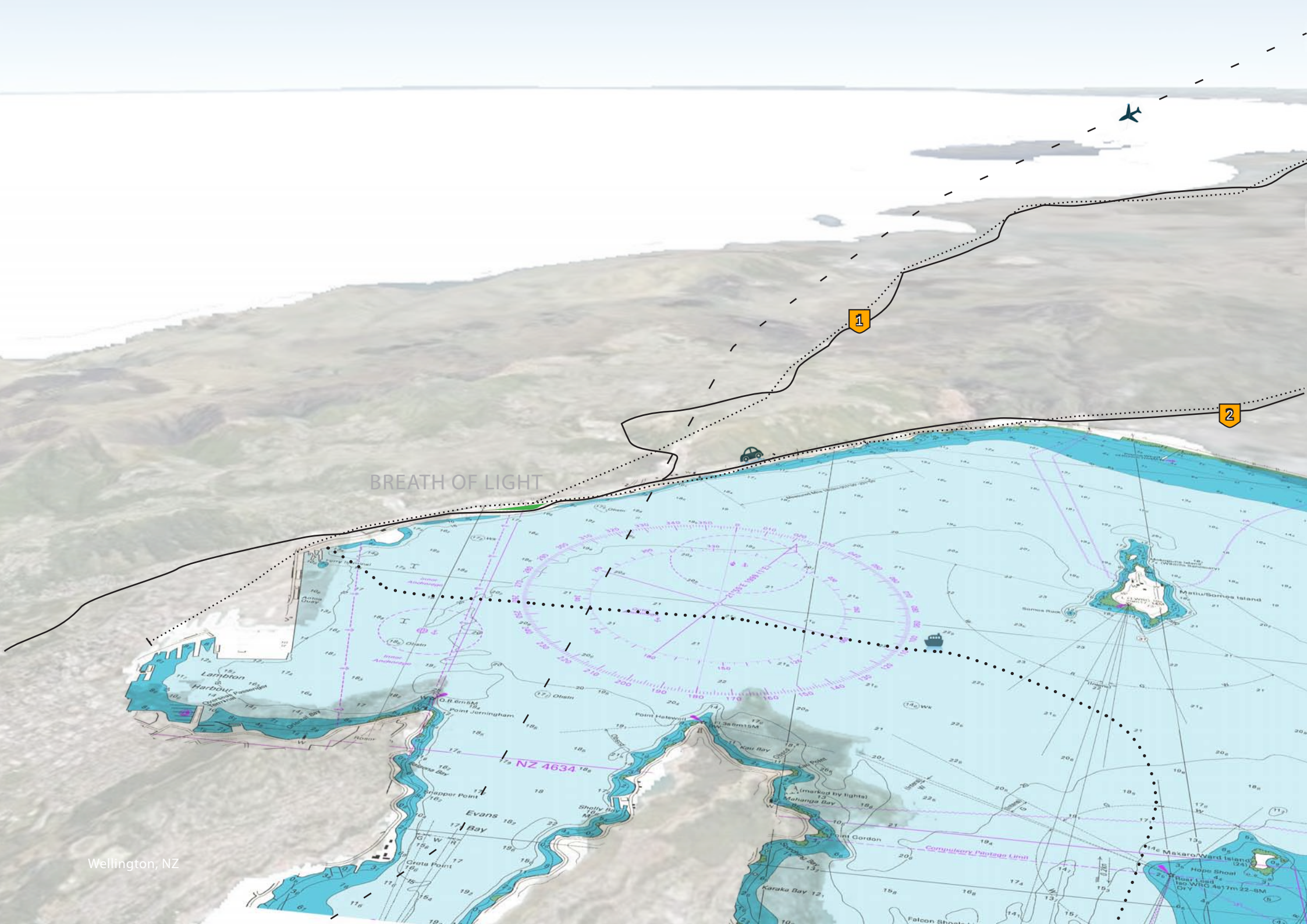


# SITE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BREATH OF LIGHT
Wellington, NZ

# NORTHERN GATEWAY - BREATH OF LIGHT

Breath of Light will use reclaimed plastic waste, light and an evolving ecology to enable a contemporary conversation and create a beacon for the greater Wellington community, creating three new islands visible to arriving travellers by car, train, boat and aeroplane. The artwork acknowledges the uplift of the seabed, twentieth century reclamation and the presence of the fault line, and recognises the tension between history and the drive for future change.

Visibility: The site selected for Wellington's gateway sculpture lies at the confluence of major movement networks of land, sea and sky. Breath of Light has been conceived, sited and developed to be experienced from land (road vehicles and trains), sea (inter-island and eastbourne ferries) and sky (national and international planes). The experience will vary by day and night, summer and winter, still days and storms.

Geomorphology: Breath of Light explores Wellington's relationship with the land; it straddles active fault lines and. is blasted by ocean winds funneled through the Cook Strait. Sited on the edge of the natural amphitheater of Wellington Harbour Breath of Light belongs both to the sea and the land. As a series of grounded islands Breath of Light references the geologic processes of uplift and erosion between the shifting land and the restless sea.

Cultural History: Breath of Light references the both the pre-European history of Te Upoko o te Ika a Maui / Te Whanganui a Tara and juxtaposes it with the contemporary landscape of Port Nicholson. The three islands of Breath of Light refer to the kainga and hilltop Pa located along the harbour edge; they act as kaitiaki, guardians of the unique entry to the city of Wellington.


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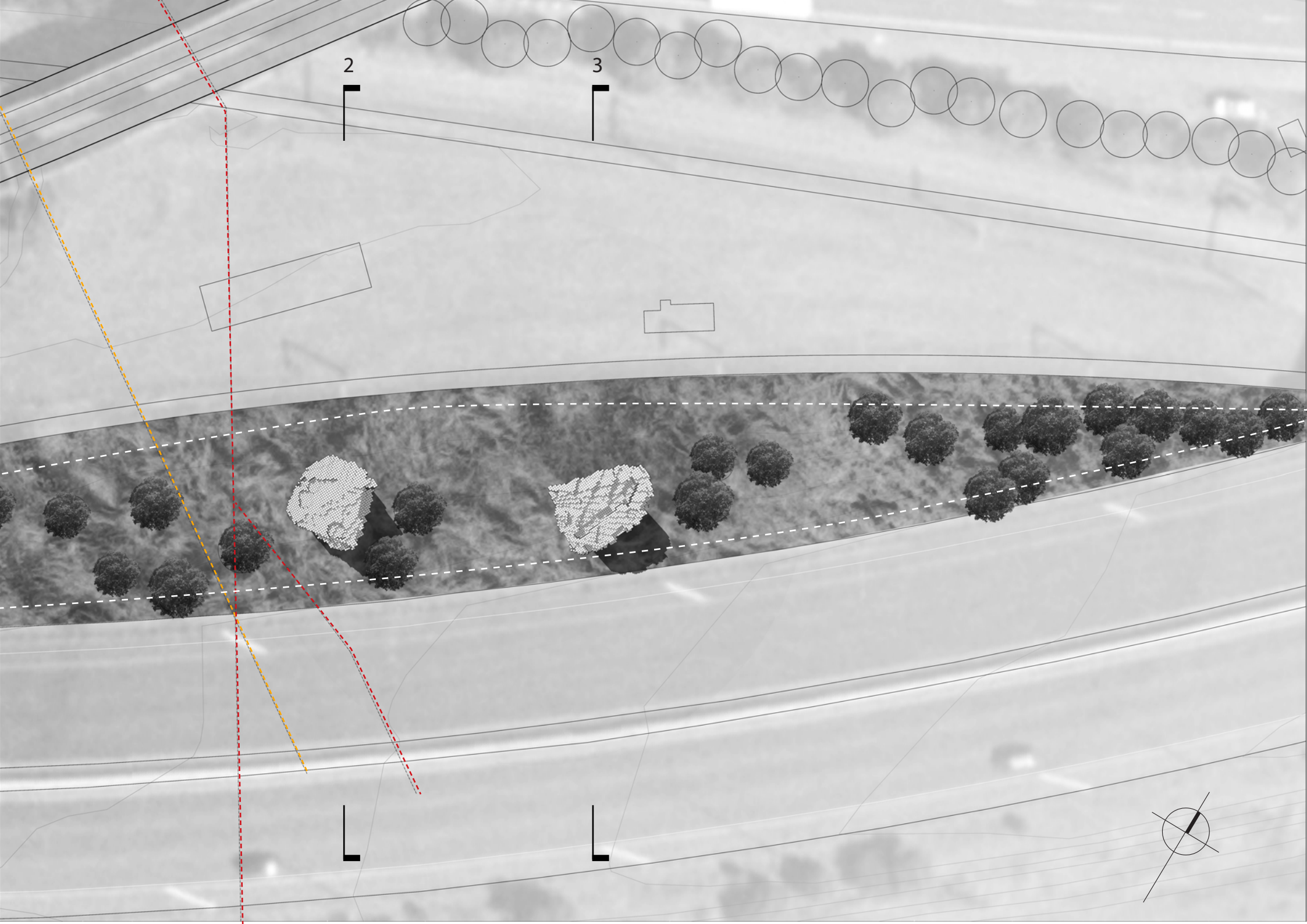
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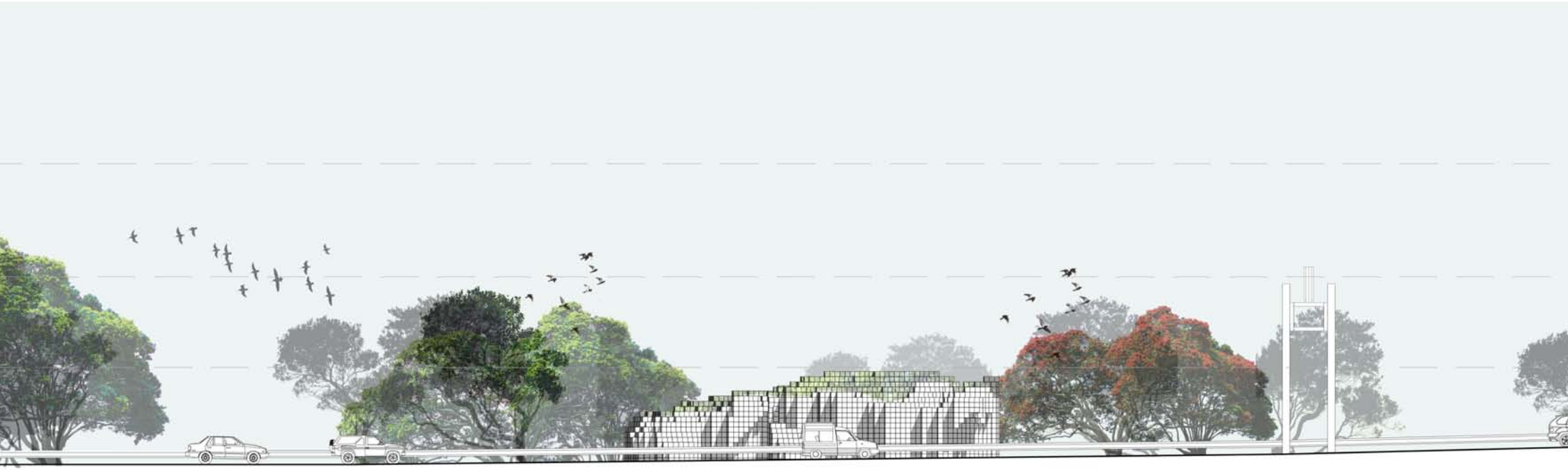

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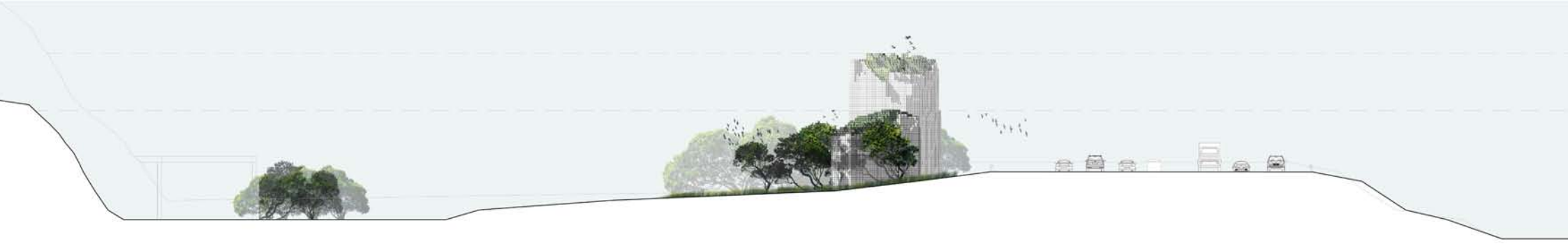

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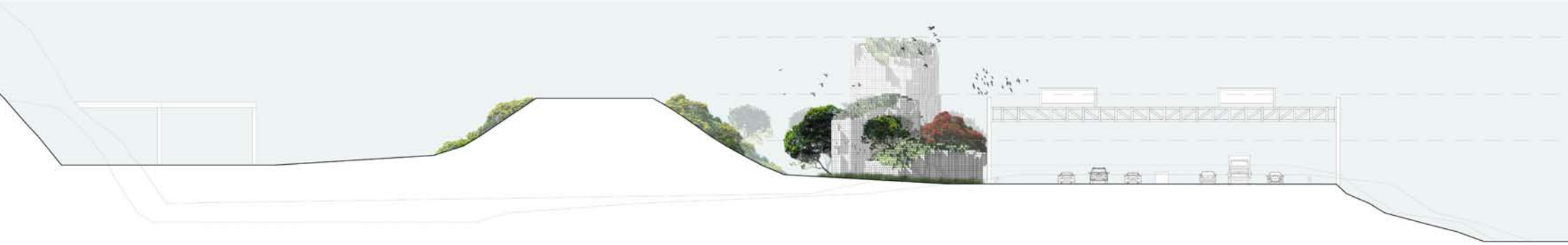

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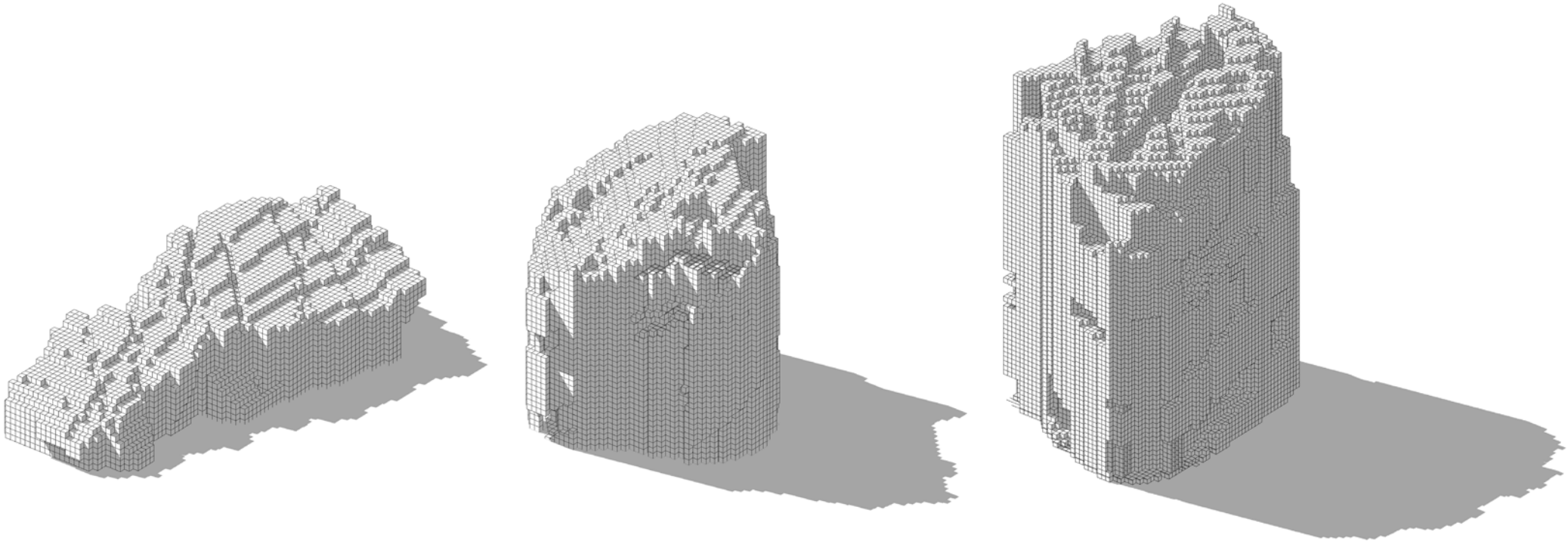
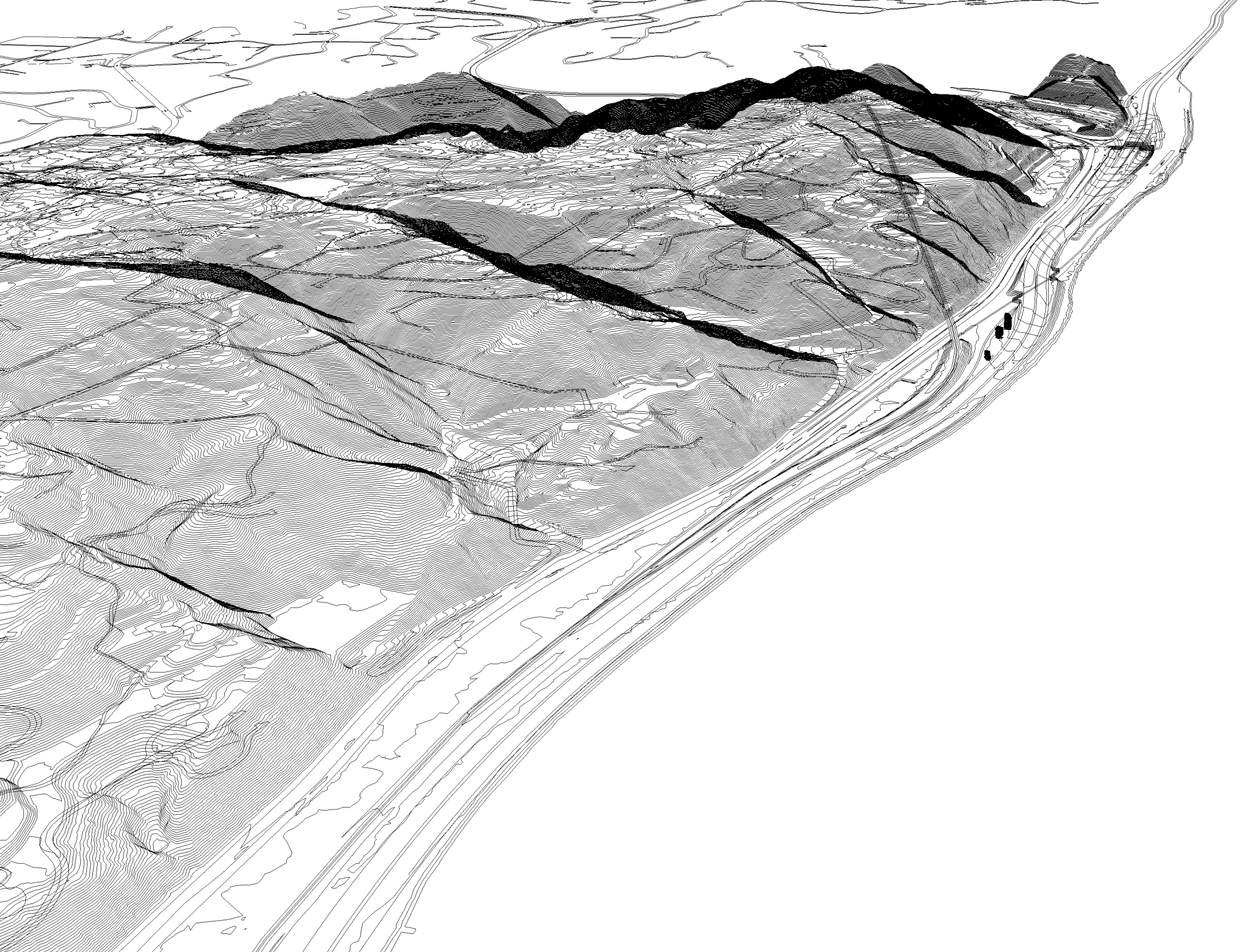




# MATERIALITY

# BYFUSION BLOCKS

## Linking people to the land the Byfusion blocks are created from individual households and the community though their plastic waste.

BYFUSION, an innovative New Zealand Company, has devised a solution to the world's plastic waste dilemma by developing technology that recycles all co-mingled plastic waste into versatile commercial products

BYFUSION technology is a simple, clean process, which transforms mixed plastic waste, including metal bottle tops and paper labels, into ground-breaking multipurpose products

BYFUSION technology provides an effective and economic solution to this global problem of landfills and oceans being overcome by plastic

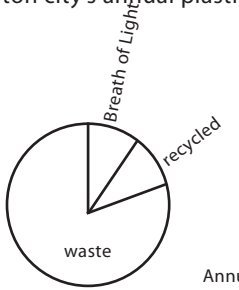
Plastic Waste - A worldwide problem - Byfusion - The Solution

The world consumes in excess of 80 million tonnes of plastic per year. Per capita this equates to:

| | |
|---|---|
| USA | 121kg of plastic per person per year |
| England | 49kg of plastic per person per year |
| New Zealand | 45kg of plastic per person per year |
| China | 28kg of plastic per person per year |
| India | 6kg of plastic per person per year |

The World's best efforts are to recycle up to 40% of consumed plastic, but typically an average of only 10% is achieved. This is currently the case in Wellington.

Breath of Light will use approximately 800 tonnes of plastic, an additional 10% of Wellington city's annual plastic waste.




Annual Plastic Waste for Wellington

## LIGHTING

At night, they will be transformed by a slow dancing display of light washing over the islands between the hills and the sea. low lying LED lights (embedded in the earth) will create an ever-changing wash of colour on the islands, highlighting the beauty of the continuum between the Milky Way and the waves.

Using an easily programmable controller the LED lighting will be customised creating a unique experience each time Breath of Light is viewed.

Tracing the natural contours of the islands the iColor Flex lights create forms representative of the undulating lands. The high-intensity strands of 50 full-color LED nodes are anchored to the islands with stainless steel pins allowing flexible and secure installation.

On the small island the ColorBlast Powercore is used to create a changing drift of colour washing the vertical faces highlighting the pixilated form. While on the large islands the high-performance ColorReach Powercore is used to brilliantly and dynamically illuminate the islands faces with significantly more lumen creating glowing objects within the Wellington landscape.

iColor Flex

ColorBlast Powercore

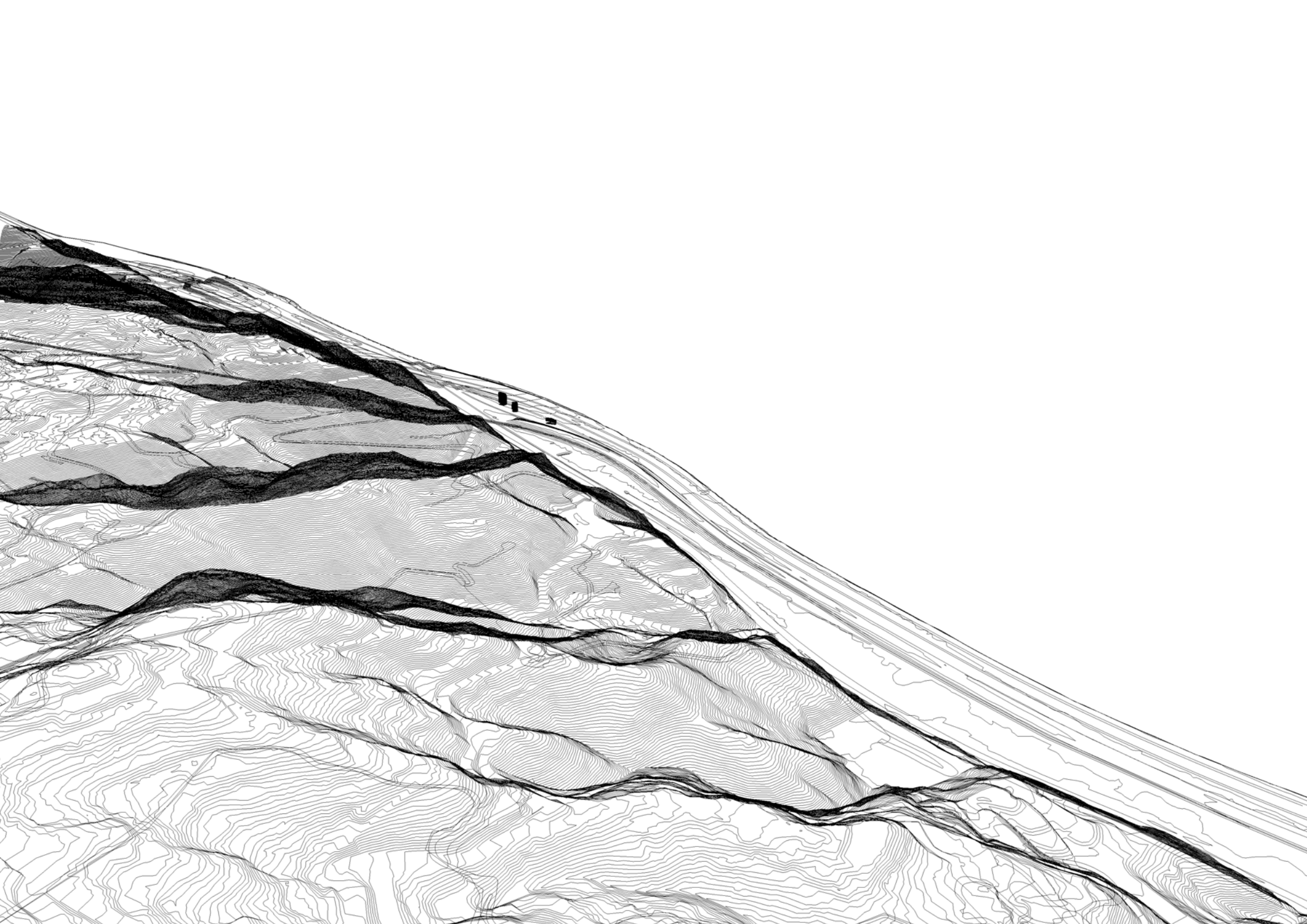
ColorReach Powercore

# ECOLOGY

Wellington's indigenous vegetation evolved over thousands of years through dramatic changes in climate. The tough, small-leaved trees and shrubs and hardy tussocks of the ice ages alternated with warmer periods during which kauri grew here. In the relative shelter of the harbour luxuriant vegetation spilled down the steep hills to meet the salt water. of the harbour

The three islands of Breath of Light provide a new armature and microclimate for the growth of indigenous species. The forms will become island sanctuaries that increase biodiversity within the degraded site. During the day, the contour lines of the formed landscape will create a dramatic contrast to the flat site. Breath of Light will become a symbol of ecological regeneration within the infrastructural zone of the harbour edge. The islands will be progressively colonised by coastal vegetation that supports native fauna and a diverse ecological community at their summits.

Eco-sourced species of moss and lichen and coastal vascular plants will be introduced on to the upper slopes of the islands through an adapted hydro-seeding technology. Applied to selected areas where a substrate of appropriate growing media has been established and 'tactified', natural succession and seed germination will contribute to a unique island flora overtime. On the ground plane, hydro-seed will again be used to effectively and economically establish a palette of indigenous grasses through which a developing coastal ecology and the Breath of Light will emerge.



# ART PROCESS

JOB NO./FILE REF:

PROJECT: BLL

DATE:



# Random Act of Earth Good Will

Rubbish is Multicultural

Crosses all ages

We All MAKE IT!

FACT or Fictin

Pop

Crackle

Magic Machine

24

BY FUSION.

LANDFILL

WCC

## ART PROCESS

Repurposing Wellington's Plastic Waste: An essential part of the Art practice for Breath of Light, refined over a number of years and previous works of Kristin O'Sullivan Peren, is the gathering of objects from the community within which the work is placed. The acknowledgement of this is highlighted by the collection of unsorted waste plastic - venturing into peoples lives to make them aware of this practice and process. On average every Wellingtonian generates 45kg of waste plastic each year, enough material to create 6 Byfusion blocks. Breath of Light will be constructed from up to 100,000 blocks formed with plastic artifacts that have been purchased, consumed and discarded by the residents the city of Wellington.

Breath of Light offers an opportunity to create a dynamic, above ground visualisation of the sheer volume of waste material that we bury in our landfill each year. The three islands are created from Byfusion blocks that condense and contain a waste product that fills land fills our land and clogs our waterways. Block by block Breath of Light is both an individual and collective response to current issues of consumption, waste and the environment. It will be constructed over the period of one year, capturing just 10% of Wellington's plastic waste and communicating this to all who come in and out of the city.

Once complete, Breath of Light will continue to evolve, this time not with the community but with natural process, in particular ecology. An indeterminate future will unfold upon and around the islands; on this new land colonies and communities of plants and insects will form and evolve.

A documentary will guide, archive and sustain interest in the work, whilst also advancing the conceptual engagement and material knowledge of the installation for the audience. The documentary will fuel Breath of Light's relevancy and message, making the notion of a sustainable future tangible for all. This accessibility will deepen the individuals understanding of the work, and broaden the environmental plea that the work hopes to propose.

## Consultation

Stakeholder and community engagement is a key component of the art process fostering respect and care for the environment and cultural sustainability. Kristin O'Sullivan Peren has met with the following people and incorporated their comments into Breath of Light:

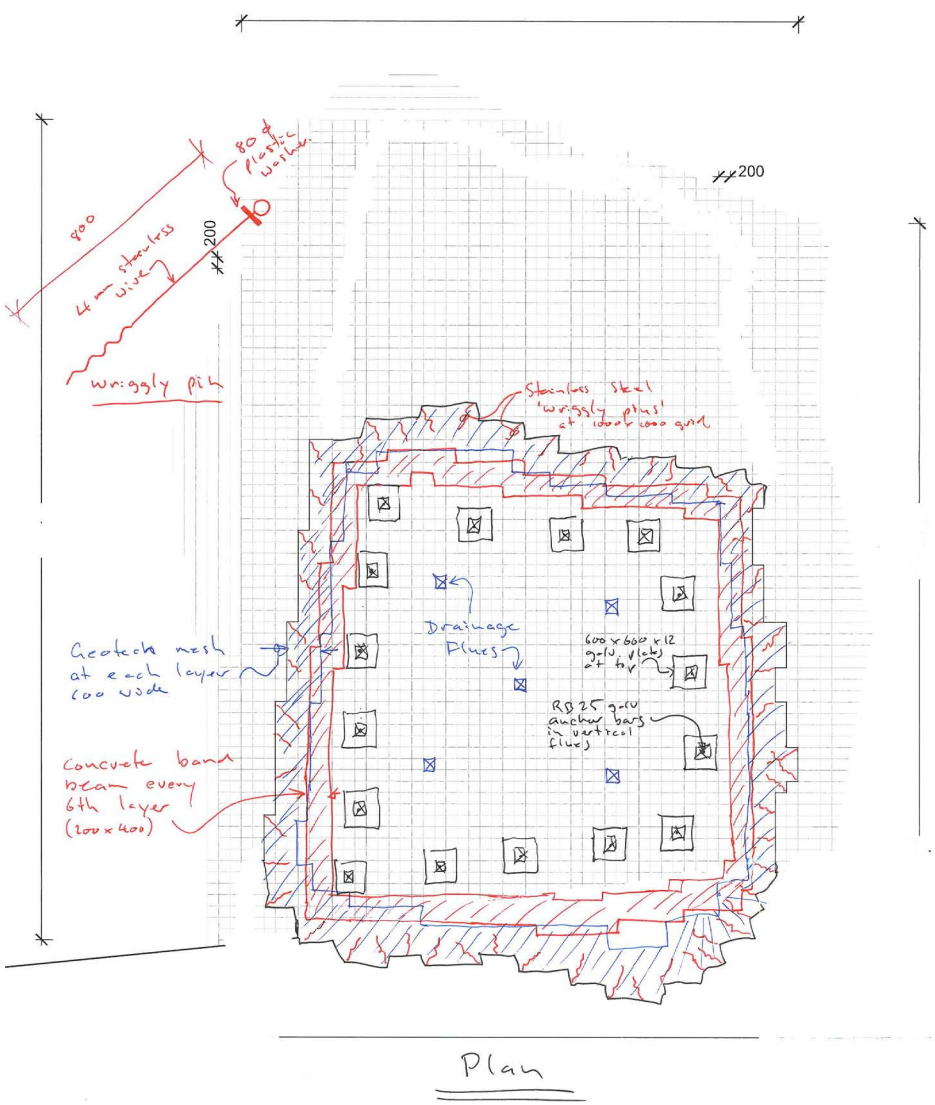
| | |
|---|---|
| Wellington Sculpture Trust: | Neil Plimmer |
| Tenths Trust: | Liz Mellish |
| KiwiRail: | Terongo (Teri) Tekii |
| NZTA: | Hugh McCutcheon<br>Mark Owen |
| Wellington City Council: | Martin Rodgers - art<br>Mike Mendonca - waste management |

It is envisioned that this dialogue will continue through the art process with additional engagement with the public encouraged at every level of the project. Consultation with some of the main stakeholders up to this date has been understanding their concerns and constraints and working with them towards an integrated solution.

One issue that was identified as a concern was ensuring that the colour of the lights does not encroach on KiwiRails signal system. Phillips' color kinetic programme can access 169 colour in its core coding so we can design the colour palette so that it does not cause any problems with the rail system.

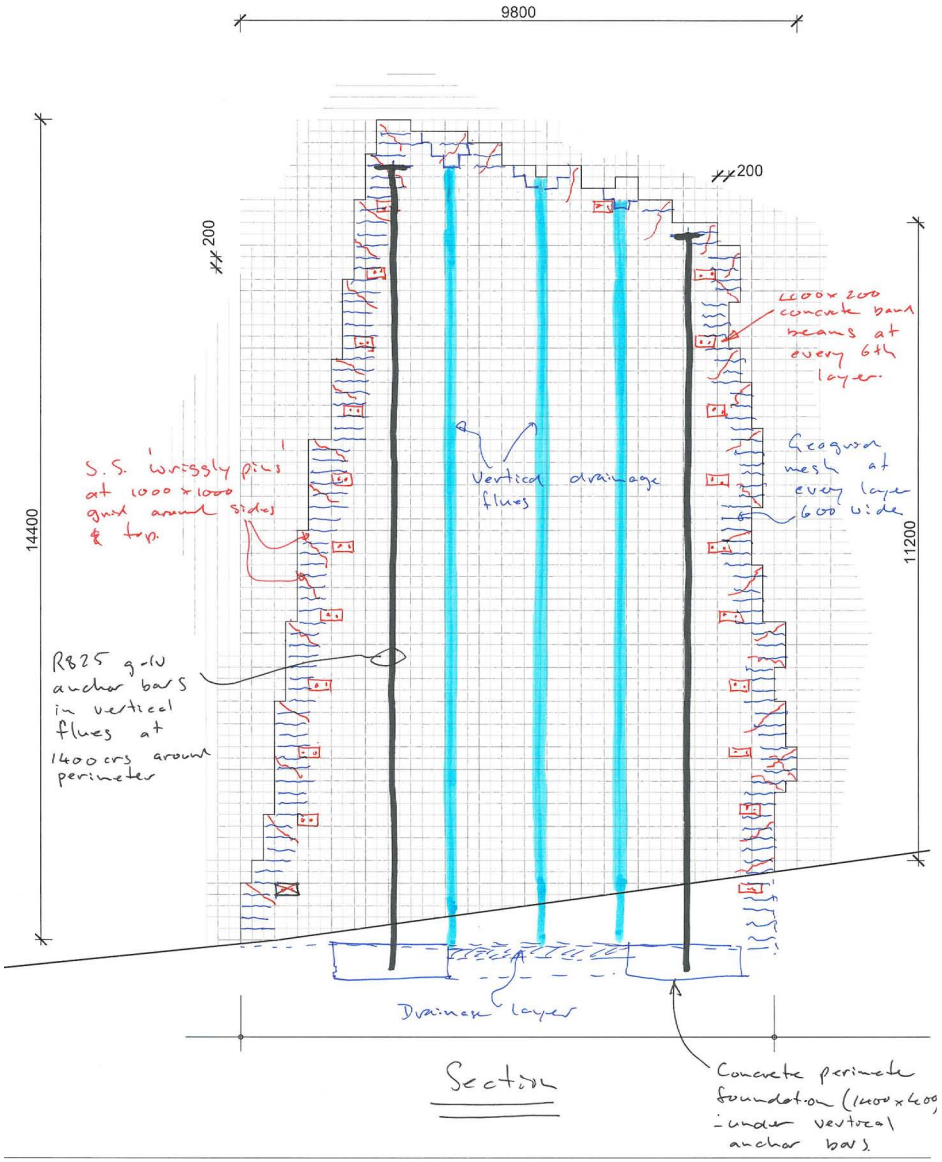
The Tenths Trust spoke of the history of the area, idenfiying a new name of Breath of Light, signifying the breathing of new life into the the recycled product that where used into the art process, and signalling the sigificance of the three local Pa sites which where home to three distinctive chiefs.

# DETAILS




Plan

8/8/10
DTC SK P01
Northern Gateway Islands




Section

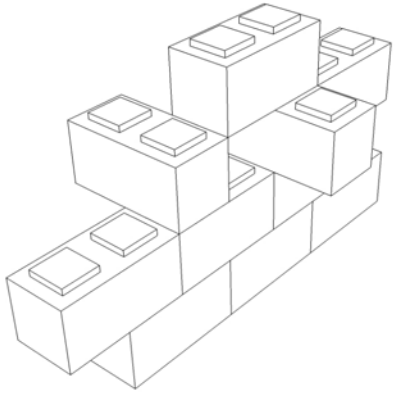
8/8/10
DTC SK P02
Northern Gateway Islands

# STRUCTURAL DESIGN STATEMENT

Structurally the three islands will consist of separate, homogeneous, plastic block ‘fills’ with peripheral/surface reinforcing and some vertical stressing to provide stability.

The interlocking blocks are of low density (approximately 440kg/m3) but have sufficient strength, particularly when confined, to carry their own weight. Beneath the highest point the blocks will exert a pressure on the subbase of approximately 6300kg/m2. This is equal to approximately 3.5m of fill. This should be well within the capacity of the subgrade and should not initiate any adjacent settlement.

The islands may be susceptible to becoming water-logged which could affect overall stability. To contract this, vertical flues will be formed within the islands to direct the run-off and disperse the water in a controlled manner. At the base of the islands drainage metal will be placed to direct water away from the interior.



Although the island will be located quite close to the Wellington fault, they will not constitute a significant seismic hazard : to themselves or to adjacent property. In any event, the consequences of some collapse would be low as the block material is lightweight and could be easily graded away.

The outer skin of blocks, particularly at exposed corners will be prone to dislodgement under high wind pressures. For this reason the perimeter will be reinforced in a number of ways.

For the gravity and seismic design of the islands they have been considered conceptually like reinforced-earth structures: i.e. the outer surface will be tied back to the interior to resist bursting and to enhance both the overall island stability, and the individual block stability.

Structural features will include:
- A level and compacted site footprint for each island.
- A perimeter concrete foundation beam.
- A ring of vertical, galvanised steel tensioning rods with large pressure plates at the top and fixing into the concrete perimeter beam at the base.
- Reinforced concrete bond beams at around 1200 centres vertically. These ring beams in conjunction with the vertical stressed bars will confine the whole internal core of each island.

Around the perimeter will be a combination of the following to tie the surface layers into the core:
- Interlocking blocks in two directions staggered between adjacent levels.
- Galvanised vertical reinforced rods passing through the purpose made holes in each block.
- Horizontal bands of geotextile mesh clamped between the blocks.
- Stainless steel “wriggle pin” nails to secure exposed corner blocks.
- Fine mesh cladding particularly at exposed corners and ridges.

# MAINTENANCE

# MAINTENANCE

The long term appearance of Breath of Light is a significant factor its success. The design team has given serious consideration to a broad range of maintenance issues including materials used, their cleaning requirements and its construction detailing.

Important maintenance considerations are identified as follows:

Prevention and deterrence of vandalism should be fully considered. Materials chosen are resistant to graffiti and vandalism. The Byfusion blocks have a low water absorbency and can be easily cleaned.
Breath of Light will evolve, and wears in, not wears out, the blocks will be washed by the sea air and wind, we expect a patina which will enhance the Light work.

The LED'S will be turned on from Dusk to Dawn 50,000 hours for LED's is equal to get 10 years lifecycle from this sustainable light source. Using a minimal amount of electricity is also a benefit of Phillips LED'S.

Maintenance requirements for vegetation is an emerging ecology we will find exotic's. We do not anticipate weeding or spraying, The Islands and surrounding land may need re seeding as we respond with new knowledge with what grow and thrives on the gateway site. We anticipate an on going relationship with the site.
The utilities will be accessed along the communication corridor and a Meter box will inform WCC of its breath of light electricity usage a small shed will hold the computer control box for the LED light system.

# DESIGN TEAM

# KRISTIN O'SULLIVAN PEREN

The Artist and her work

For many years I have worked in print but more recently my art practice has diversified into sculpture. In particular light based installation that explores the relations between lands, light and water. My light based work while celebratory reflects my concerns about the environment and the heritage of the landscapes that are familiar to me.

Keys pieces in my practice include the Public commission 'Papa Kura" Aqua land, Frankton Events Centre , Queenstown Resin, LED and Steel 3400x 600 x600 3 vessels. Seeing the Light Private collection 1200x600x400 Resin, Led's Perspex and Control Box, Recently shortlist for the Breath of Light – Breath of Light Wellington Northern Gateway Recycled Plastic Byfusion Blocks, LEDS, Recycled Living Earth and Native Flora.

Commissions:

2010 shortlisted Northern Gateway Wellington Sculpture Breath of Light- Breath of Light
2007 Papakura [2005-08], Aqua land, Frankton Events Centre, Queenstown
2005 Poplars [2003-05], Private Collection
1998 Land Sea and Sky, Credit Sussie, Wellington
1998 Mural, Saffron Restaurant, Arrowtown
1996 Box Set Prints with John Drawbridge Caltex
1995 Mural, clear Communications, NZ Porirua and Levin
1992 Cannibal Rabbit print series, Air New Zealand
1992 Water and Land' print series Ministry of Agriculture and Fisheries, NZ
1991 Te Mata Peak [Sleeping Giant] Print Series

Works on Paper:

2009'Light Lands' CPrints Canterbury Fine Arts Series
2007-08 Trying to Capture Light #1, #2, #3, Print Series
1996 'The Irish 'print series
1995 'Island" print series

Individual Sculptures:

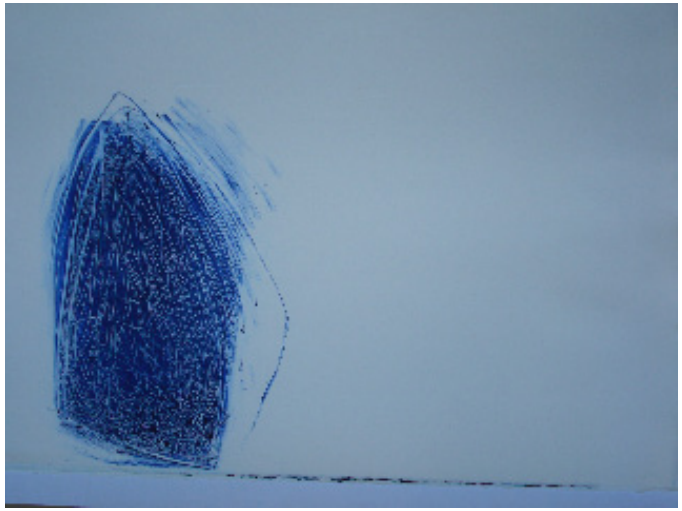
2009 Seeing the light [2009
2006-07 Crown Meat
2006-07 Bulletproof
2006 Five Cents Worth
2005 What's the Point?
2004 Trophy Wife
2004 Watch My Lips
2004 Bonehead

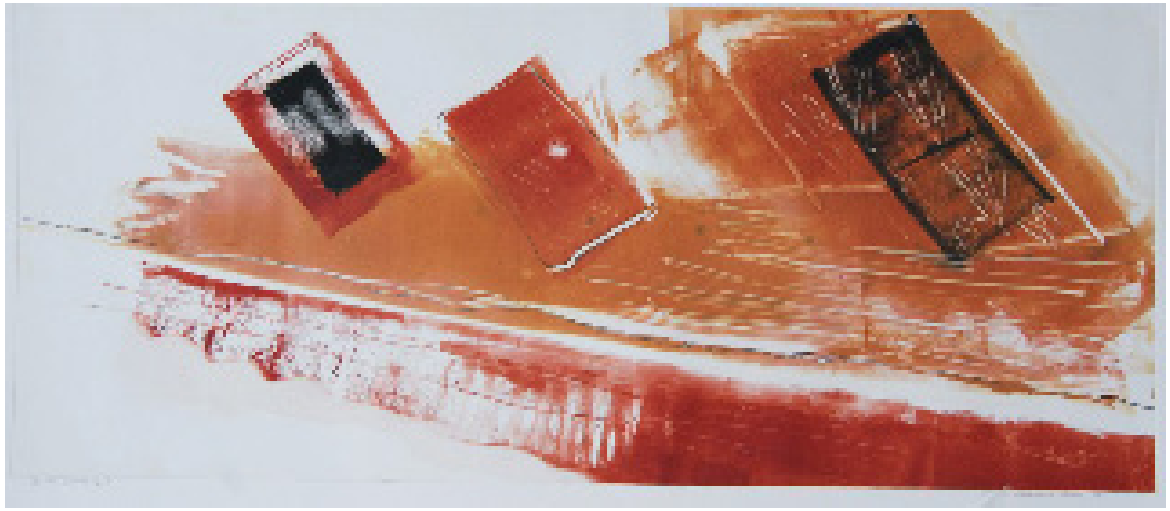
Sculpture Series

2009'Baleful fusion #1#2#3
2008 Fissure #1#2#2#3
2004-07 False Trophies'
2003-07 Poplars
1998 'Islands'

Artist in Residence;

2009 Canterbury University Fine Arts Research Residency, Christchurch.
1996 Black Church Print Studio Dublin, Ireland





Kristin O'Sullivan Peren has teamed up with:

## ISTHMUS

Isthmus is one of the largest and most respected landscape architects and urban designer offices in New Zealand based in Wellington, Auckland and Tauranga. Started 20 years ago by its current Directors, who have all been elected Fellows of the New Zealand Institute of Landscape Architects (NZILA) Isthmus now employing over 30 Isthmus professional staff with an extensive experience in designing and implementing complex, large scale public space, streets and parks particularly in waterfront situations.

Isthmus is highly respected internationally, having received a number of International Federation of Landscape Architects (IFLA) awards for urban design, and has been published in leading international profession journals such as TOPOS and in international books on best practice landscape architecture.

## DUNNING THORNTON

Dunning Thornton Consultants are Consulting Engineers offering specialist services in:

- Structural Engineering and associated Civil Engineering Works.
- Project and Construction Planning, Support, and Programming.

The firm has been involved with the design, supervision and management on a wide range of building projects including multistorey, industrial, commercial, governmental, institutional, sporting facilities, earthquake engineering, earthquake strengthening, and residential developments.

Wellington Zoo Complex

Waitomo Visitors Centre

## KWANTO

At Kwanto they think, besides the dots and digits, it's about developing relationships, delivering quality lateral solutions, and most of all adding value to the project team - by providing an excellent service and end-product that is relevant and tailored to your requirements.

The team at Kwanto have proven experience and expertise in all areas of property and construction, boasting award-winning quantity surveyors with experience both nationally and internationally.

## ISOBEL GABITES- NATURAL TEXTURES

Isobel is a consultant combining ecological, interpretation planning and environmental graphics/wayfinding skills, and is an author of a number of natural history and gardening publications. Isobel has worked for the Commission for the Environment, the Department of Conservation, Isthmus and Boffa Miskell Ltd in addition to twenty years as a sole practitioner providing advice on a wide range of public and private commissions. She also tutors part-time at the VUW School of Landscape Architecture.

Her role in landscape ecology and public display projects in particular, has involved close associations with architectural and landscape architectural teams whereby concepts are developed holistically, and fully informed by natural processes and ecosystems.

# PROJECT COSTS

**INTRODUCTION**

This estimate has been based on:

The models, design statements and sketches, sections and plan drawings prepared by;
a) the artist, Kristin Peren,
b) the landscape architects, Isthmus Group, and
c) the structural engineer, Dunning Thornton Consultants.

Estimation of the construction works has been allowed only as per above referenced documentation supplied which forms the basis for our estimate. All work should be installed in accordance with the Building Code and manufacturer's instructions as applicable.

**Kwanto h**as assumed current competitive market rates based on lump sum tenders being received from at least three suitable selected tenderers.

This estimate is provided for the use of **Kristin Peren, Isthmus Group and Wellington City Council,** and may not be used by others without written permission.

**Kwanto** accepts no liability to third parties who may act on the contents of this report.

Wellington Gateway Sculpture
WELLINGTON
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**BREAKDOWN OF CONSTRUCTION COSTS**

**WELLINGTON GATEWAY SCULPTURE**

| | | | **Element Cost** |
|---|---|---|---|
| SITE PREPARATION | | | 5,880.00 |
| SUBSTRUCTURE | | | 35,182.50 |
| FRAME & STRUCTURE | | | 481,903.00 |
| ELECTRICAL SERVICES | | | 146,300.00 |
| EXTERNAL WORKS | | | 31,900.00 |
| | **Sub Total** | | **701,165.50** |
| Preliminary & General (measured) | | | 72,130.00 |
| Preliminary & General | | 3% | 23,198.87 |
| | SubTotal | | 796,494.37 |
| Contractor's Overheads & Margin | | 5% | 39,824.72 |
| | SubTotal | | 836,319.09 |
| Contingency Allowance | | 5.0% | 41,815.95 |
| | SubTotal | | 878,135.04 |
| Professional / Consultant / Artist Fees (inc. QS) | | | 90,000.00 |
| Resource/Building Consent Costs | | | 5,000.00 |
| Media educational documentary | | | 25,000.00 |
| | | | 998,135.04 |
| Rounded (excluding G.S.T) | | | **998,140.00** |
| Total (including G.S.T @ 12.5%) | | | **1,122,908.00** |

WELLINGTON GATEWAY

FOR

ISTHMUS GROUP / KRISTIN PEREN

PROPOSED SCULPTURE

BUDGET COST ESTIMATE

| ITEM | DESCRIPTION | QUANTITY | UNIT | TOTAL RATE | TOTAL AMOUNT |
|---|---|---|---|---|---|
| - | GENERAL NOTES TO CONTRACTORS<br><br>Site access is assumed will be either;<br>a) from the South bound lane of the Hutt Road just South of the interchange and across two Wellington-Hutt Valley/Wairarapa rail track, or<br>b) from the North bound only motorway access point adjacent the motorway overbridge signage gantry.<br><br>It is acknowledged that both options have inherent risks associated with accessing the site and appropriate systems will have to be agreed with the relavant authorities before works commence. | | | | |
| | PRELIMINARY & GENERAL | | | | **72,130.00** |
| 1 | For the purposes of this estimate a 22 week contract duration has been assumed as reasonable based on the extent and nature of the works | | Note | | |
| 2 | Site Supervision; allow for 10% time for duration of the works | | Sum | | 5,280.00 |
| 3 | Allow for site telephone for duraction of works | | Sum | | 1,000.00 |
| 4 | Allow to provide storage container for duration of works | | Sum | | 2,200.00 |
| 5 | Allow for site WC and amenities for duration of works | | Sum | | 1,650.00 |
| 6 | Allow for clearing site debris and rubbish removal | | Sum | | 3,000.00 |
| | Allow for site access; include one of the following two options; | | | | |
| 7 | a) provision for daily escort across rail track | | Sum | | 33,000.00 |
| 8 | b) escort or lane closure provisions to nearside lane of Northbound urban motorway | | Sum | | |
| 9 | Allow for scaffold ladder/staircase to access island structure over 2.0m high, 18 weeks | | Sum | | 9,000.00 |
| 10 | Allow for scaffold barrier / edge protection to perimeter of structure over 2.0m high | | Sum | | 13,500.00 |
| 11 | Allow for 10days mobile cherry picker access provisions for fixing lighting | | Sum | | 3,000.00 |
| 12 | Final site clean and demobilisation | | Sum | | 500.00 |
| | SITE PREPARATION | | | | **5,880.00** |
| 13 | Site clearance; remove trees | 2 | No | 350.00 | 700.00 |
| 14 | Site clearance; site vegetation | | Item | | 500.00 |
| 15 | Site strip; excavate 100mm topsoil and spread on-site | 381 | $m^2$ | 5.00 | 1,905.00 |
| 16 | Excavate; bulk excavation to formation level; spread/spoil excavated material on-site | 111 | $m^3$ | 25.00 | 2,775.00 |
| | SUBSTRUCTURE | | | | **35,182.50** |
| 17 | Anchor bar foundation ring beam; 1200x400mm deep; including excavation, concrete and reinforcing at 80Kg/$m^3$ | 79 | m | 400.00 | 31,600.00 |
| 18 | Hardfill / drainage layer; import and place 150mm thick hardfill/drainage metal to form building platform/drainage layer | 44 | $m^3$ | 65.00 | 2,860.00 |
| 19 | Allow weedmat over area of island | 289 | $m^2$ | 2.50 | 722.50 |
| | FRAME & STRUCTURE | | | | **481,903.00** |
| 20 | RB25 steel galvanised anchor bars; in vertical flues at 1400mm crs to perimeter of structure; cast into footing | 1,840 | kg | 10.00 | 18,400.00 |
| 21 | Extra value for top web forge plate and oversized washer and nut | 40 | No | 300.00 | 12,000.00 |
| 22 | Concrete reinforced band; 400x200mm; reinforced (allow 2No. 12mm bars) and cast directly against byfusion blocks used as formwork; at every 6th byfusion course | 667 | m | 35.00 | 23,345.00 |
| 23 | Extra Value allowance for concrete pump equipment hire; allow 1 day hire per band over 2.0m high | | Sum | | 5,600.00 |
| 24 | Geotech reinforcing mesh; 600mm wide laid to perimeter on every layer of byfusion blocks | 5,054 | m | 2.00 | 10,108.00 |
| 25 | Allow for manufacture and delivery of byfusion blocks; Island 1 approximately 8 x 8 x 14m high | 50,000 | No | 1.90 | 95,000.00 |
| 26 | Allow for manufacture and delivery of byfusion blocks; Island 2 approximately 7 x 7 x 9m high | 24,000 | No | 1.90 | 45,600.00 |
| 27 | Allow for manufacture and delivery of byfusion blocks; Island 3 average 5 x 15 x 3m high | 13,000 | No | 1.90 | 24,700.00 |
| 28 | Allow labour to lay and gluing of byfusion block (assume Block laying tradesman with 2No. Labourer laying and 1No. Labourer) | 87,000 | No | 2.00 | 174,000.00 |
| 29 | Extra Value for constructing around drainage flues | | Item | | 1,000.00 |
| 30 | Allow to drill and anchor fix 800mm long stainless steel 'wriggle pins'; 4mm diameter, including 80mm diameter plastic washer at 1000x1000mm ctrs in external face of sculpture | 1,110 | No | 65.00 | 72,150.00 |

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| | | | | | |
|---|---|---|---|---|---|
| | ELECTRICAL SERVICES | | | | **146,300.00** |
| 31 | Allow to make local connection to transport lighting cabling | | Item | | 1,500.00 |
| 32 | Supply and install electrical meter | | Item | | 800.00 |
| 33 | Trench and cabling to each island location (PROVISIONAL SUM) | | Sum | | 5,000.00 |
| 34 | Supply and install light controls weatherproof and secure housing (PROVISIONAL SUM) | | Item | | 3,000.00 |
| 35 | Supply light fittings and controls (as per Philips Estimate/Quote No.QTO020810 dated 11th Aug. 2010) but allow for reduced scope of LED strings | | Item | | 110,000.00 |
| 36 | Allow for light programming time and programming equipment | | Item | | 10,000.00 |
| 37 | Allow for making connection to local mains data link and cabling to and connecting to programming equipment (PROVISIONAL SUM) | | Sum | | 4,000.00 |
| 38 | Allow to install light fittings | | Item | | 12,000.00 |
| | EXTERNAL WORKS | | | | **31,900.00** |
| 39 | Allow for grading, rolling and preparing excavated material ready for seeding | | Item | | 7,500.00 |
| 40 | Extra Value for backfilling and grading topsoil around islands | | Item | | 2,500.00 |
| 41 | Hydro-seeding; grass seed the site area in making good (PROVISIONAL SUM) | 500 | m² | 3.50 | 1,750.00 |
| 42 | Planting; allow for planting to top of islands | 203 | m² | 50.00 | 10,150.00 |
| 43 | Allow for stainless steel pins to anchor LED light strings | 200 | No | 50.00 | 10,000.00 |
| | TOTAL AMOUNT FOR BUDGET COST ESTIMATE CARRIED FORWARD TO SUMMARY | | | | 773,295.50 |

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**NOTES**

The following have been excluded from this estimate of cost:

1 Legal Costs

2 Working outside normal hours

3 Delivery of materials to site by train (unless similar or equal cost to road delivery costs)

4 Temporary works to form access route and/or making good on completion

5 Site boundary fencing generally including to separate site area from rail tracks

6 Positive drainage or connection to existing drain network

7 Provision for any external or local power outlet or other electrical services work except for lighting

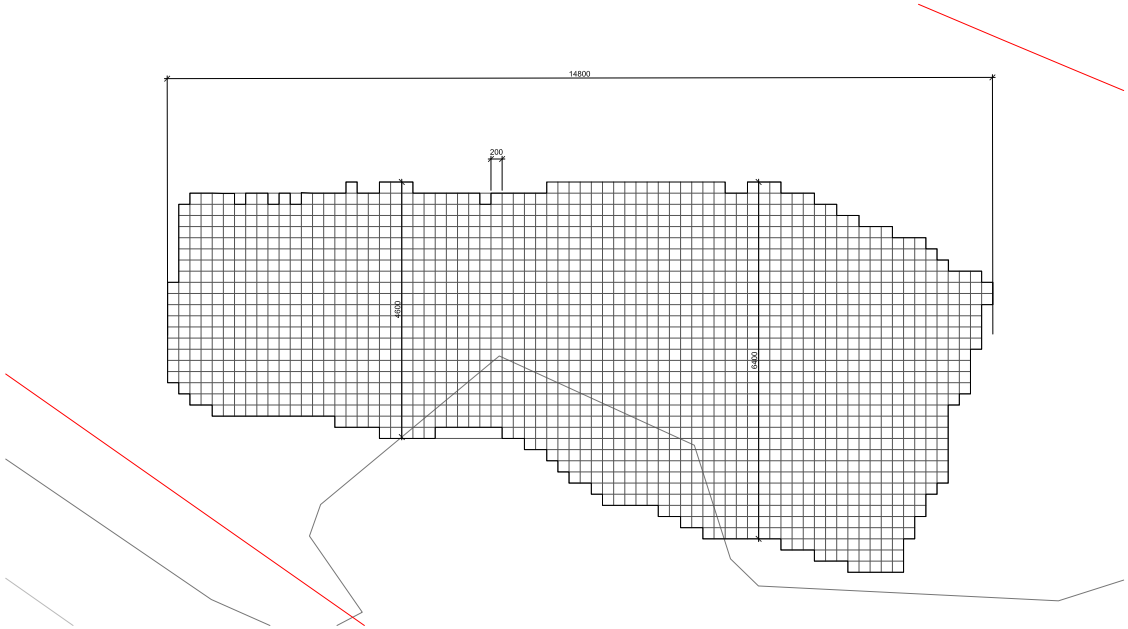
8 Temporary or permanent access provision for public

9 Signage (temporary or permanent)

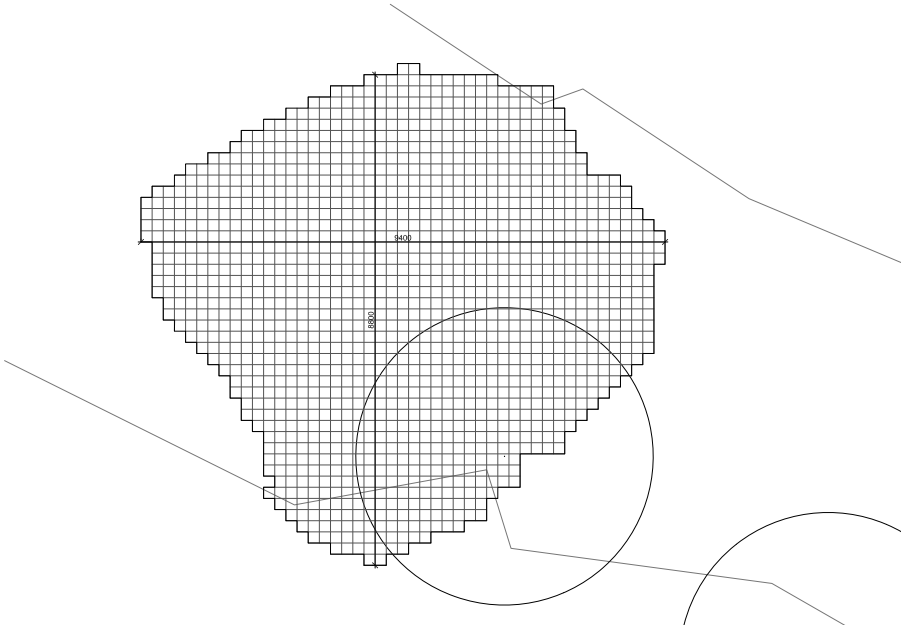
10 Demolition or breaking out of any existing structures

11 Provision for GST increases to 15%

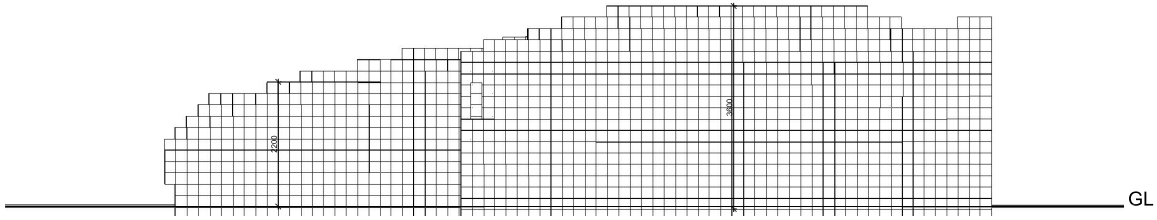
# APPENDIX



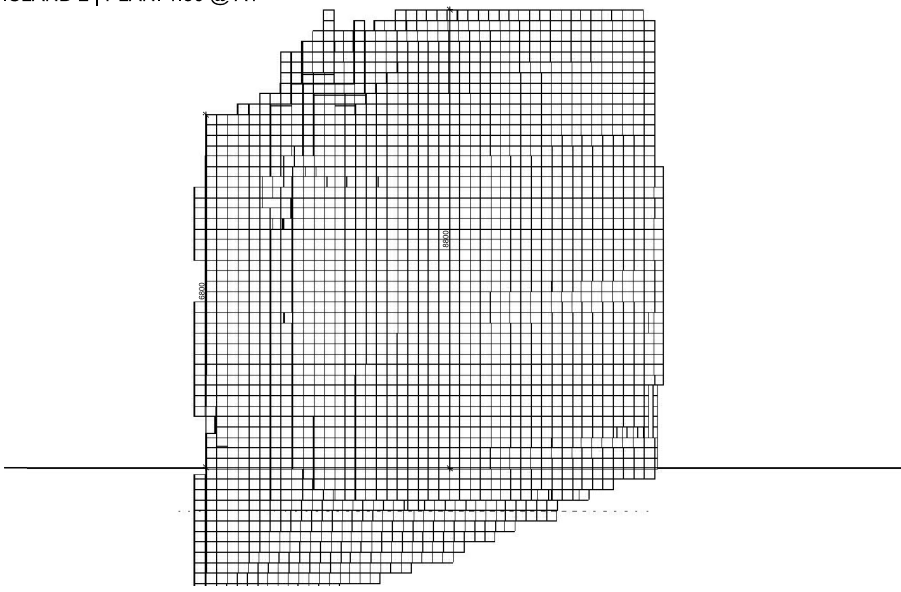

ISLAND 1 | PLAN: 1:50 @ A1



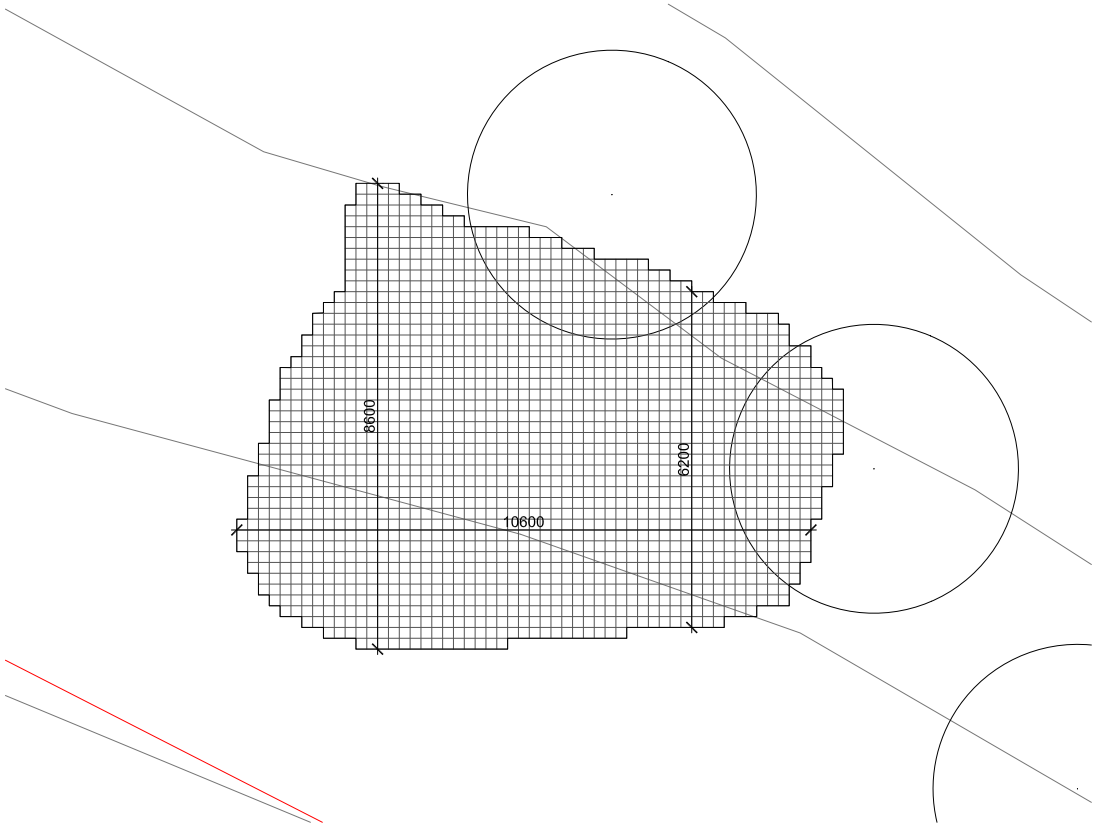

ISLAND 2 | PLAN: 1:50 @ A1



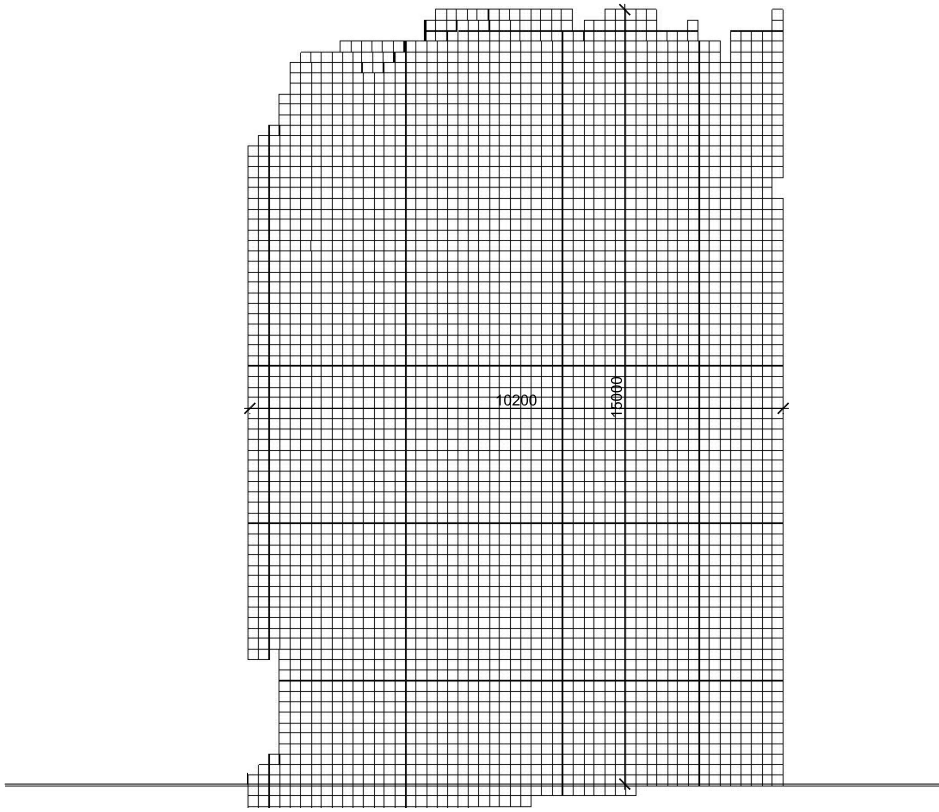

ISLAND 1 | ELEVATION: 1:50 @ A1




ISLAND 2 | ELEVATION: 1:50 @ A1




ISLAND 3 | PLAN: 1:50 @ A1




ISLAND 3 | ELEVATION: 1:50 @ A1

# FOREWORD REFERENCES

1. Intensive farming practices prevail and place inordinate demands on catchments' hydrological systems for irrigation. One consequence is that many rivers can no longer maintain rich instream faunal habitats nor naturally flush their sediments or the waters of their estuaries out to sea, a situation that contributes to coastal erosion, river aggradation and flooding, and poor coastal water quality.

2. The Cree people called the northern lights the 'Dance of the Spirits'.

3. The region has a foundation of Torlesse Greywacke rocks, that make up the Tararua and Rimutaka Ranges, that go from Wellington in the south to the Manawatu Gorge where they are renamed as the Ruahine Ranges, and continue further north-northeast, towards East Cape. To the west of the Tararua Ranges are the Manawatu coastal plains. To the east of the Ruahine Ranges is the Wairarapa-Masterton Basin, then the Eastern Uplands that border the eastern coast of the North Island from Cape Palliser to Napier.

4. The biggest in historical times being the magnitude 8.2 Wairarapa Earthquake in 1855. Damage from the 1855 earthquake is still visible, particularly the large landslip on State Highway 2 between Ngauranga and Korokoro (just north of Rocky Point where the BP petrol station is located). Although bush has overgrown the slip the dramatic change in terrain is still visible. Surprisingly, most locals are oblivious to the location of the landslip as they drive by on the highway.

5. There are several major earthquake faults in the region, some of which slip a metre or more in one jump every few centuries.

6. See: Mark Stocker, Shurrock: Shaping New Zealand Sculpture, Dunedin: University of Otago Press, 2000; also Michael Dunn, 'Aspects of New Zealand Sculpture', 4. The Origins: 1920-50', Education, 1977, pp 26-28 and P. Cape, Artists and Craftsmen in New Zealand, Auckland: Collins, 1969 and Michael Dunn, New Zealand Sculpture, A History, Auckland: AUP, 2002.

7. The turn of the century witnessed a two-way aesthetic traffic: the exodus of many promising young artists to Europe and the arrival of European-trained masons and sculptors and teachers in New Zealand. In the difficult years before and following WWI, home-grown practitioners gained ground. Serious challenges to inherited artistic conventions became manifest around the 1940s, seeking a wider, freer expression in local materials, born of an increasingly awareness of the country's unique geographical and cultural difference.