Responsibilities, Reclamation and Recuperation – the Critical Constructions of Kristin O'Sullivan Peren

EDIFICES AND IMPLICATIONS

For centuries, and across diverse cultures, sculpture has functioned variously as a votive, commemorative, didactic or decorative agent. In public or private domains and in stone or bronze, it has often been figurative and 'inspirational'. Since 1945, however, a diversity of forms, materials and sites have demonstrated that sculpture's source references and their implications are innumerable — including the atrocities of war, the atomic bomb, the commerce of munitions and unchecked ecological degradation.

The challenge to the rule of capital posed by the anti-war, pro-civil rights and free speech demonstrations and the related events of 1968,¹ raised further questions about the role of the art world within capitalism. Discussion of these concerns led to potent expression in the lowly materials of *Arte Povera*² and Anti-Form³ works.

Working in unorthodox materials, often referred to as detritus, artists associated with such movements rebuffed the notions of order and permanence that were epitomised by the austerity of Modernism. Rejecting traditional boundaries and the idea of 'object-hood',⁴ they questioned the role of art in society, art as a finished, saleable product, and the ideological dominance behind gallery and museum display. By exhibiting their work (often impermanent⁵) in alternative venues, they helped forge a radical socio-political critique of art in the twentieth century with far-reaching ramifications. Thereafter, neither the materials, the formative methods involved, nor the function and value of art could be prescribed by established hierarchies.

With traditional certainties effectively obliterated, many European sculptors favoured irony as an appropriate idiom for leaving meaning open; being unconcerned with closure, they were intent upon engagement. The groundwork was established for 'counter-monument'⁶ works, for Earth Art, urban interventions and environmental works, so that in the 21st century contemporary sculpture is as freely various as the concerns it addresses and the sites, materials and audiences it engages.

This legacy, endorsing critical engagement, took root slowly in Aotearoa New Zealand. Its growth involved breaking with British academic principles, developing independent self-references and educating a public reluctant to accept change.⁷ In effect, this legacy continues to inform much contemporary sculpture in this country and questions, in particular, New Zealand's promotion as clean, green-blue and democratic.

Kristin O'Sullivan Peren challenges this promotion through prints and sculpture which address pressing ecological concerns, particularly the despoliation and contamination of natural resources caused by unsustainable practices and notions of progress.⁸ Her language, abstract and contemporary, includes an educated view of this country's historical roots, its socio-political developments and geography. Her work, she says, is as much informed by the geological formation of Aotearoa (and its on-going mutations), as it is by its several waves of tenancy (particularly the European) and their impact upon and degradation of host ecosystems.

New Zealand's colonial history is one of 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 those that are sustainable in the long term, with scant regard for contingent environmental problems – irrigation, pesticide and fertiliser use, run-off and erosion, and the continued depletion of native ecosystems, causing loss of indigenous flora and fauna. 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 in-stream faunal habitats or flush their sediments and the waters of their estuaries out to sea naturally, a situation that contributes to coastal erosion, river aggradation and flooding, and poor coastal water quality. Land alterations such as these, together with mining, fracturing and landfill activities, highlight the level of unchecked contamination and disruption practiced in New Zealand – a landmass which in itself is characterised by geological eruption, disturbance and discontinuity.⁹

ANXIOUS ISLANDS

Kristin Peren says that her work has always addressed the land, its formative forces and resources and she acknowledges that her creative development owes much to her teacher and mentor John Drawbridge. His tuition and encouragement to experiment helped Peren to recognise that her work concerned ecological rather than urban issues, although they clearly are related. "Throughout the 1980s and 1990s," Peren says, "my imagery included only island shapes in the midst of water and light, focusing on the land and particularly the degradation of our coastline and waterways – hence the early *Islands* prints (1995) [Figure 1]. The subsequent small 'Islands' (2005) sculptures [Figure 3-4] and two monumental resource-related works, *Poplars* (2003-05) and *Papakura* (2005-08), demonstrate the expressive development of ecological concerns."¹⁰

Peren's *Islands* (1995) prints evoke landfalls as dense mass and structure, uninhabited and untouched. They are not the paradisal landfalls of settler dreams as painted by colonial artists: Fox, Kinder, Buchanan or Heaphy.¹¹ And while Peren's brooding prints may suggest forms born of tectonic up-thrust, they are not visual renderings. Peren was forging a language more symbolic than naturalistic¹² and this gains considerable clarity in the 'Islands' (2005) sculptures. Cast in epoxy resin, they are luminous and elegant and yet, like the earlier prints, these are also anxious 'islands'; gestural metaphors concerning the land and its resources as affected by natural and human energies.

See, I have poured o'er plain and hill

Gold open-handed, wealth that will

Win children's smiles

- Autumnal glories, glowing leaves,

And aureate flowers, and warmth of sheaves,

'Mid weary pastoral miles.13

Just prior to casting the 'Islands', Peren had completed *Poplars* (2003-05) [Figure 5], sited on farmland in the Gibbston Valley. Conceptually and aesthetically, *Poplars* is critical rather than inspirational. Early settlers in New Zealand planted poplars as boundary or marker points. Central Otago has now become synonymous with the striking seasonal changes of the acclimatised poplars. Against spring and summer skies they rise as glorious Hooker Green rods. In autumn they turn into flaming aurora yellow and gamboge spires. For many settlers these highly visual trees marked out Central Otago as one of the country's finest fruit baskets and also signposted pathways leading to valuable greenstone deposits. But these exotics, replicas from the 'old country', together with other introduced flora and fauna, and farming practices, can also be interpreted as viral, spreading a contagion of penetration and displacement in native bio-diverse systems and natural resources.

Yonder my poplars, burning gold,

Flare in tall rows of torches bold,

Spire beyond kindling spire.14

Poplars critiques several layers of replication and displacement. Built from schist gathered from Peren's own farmland, the work does not imitate the ubiquitous settler tree. Rather, the five constituent members appear full of imminent movement and encourage a discourse about nature: resources and changes are posed as involving an intricate balancing act between people, animals, technologies and ecologies. One of the elements is slowly collapsing and Peren indicates that she is happy to let this happen, in that the land and vegetation appear to be reclaiming, re-colonising their space.

Peren says she looked at the lay of the land, the lines of erosion and how the changing light affected these. Schist, with its rich foliation, appeared to be an expressively appropriate medium.¹⁵ The sculptures were strategically positioned to maximise a sense of movement and change. "Looking back," Peren says, "I can see that the 'Islands' prints were almost Romantic, almost darkly paradisal and that *Poplars*, by the very nature of their material expression, were a more powerful statement of concerns, and with application far beyond New Zealand."



Figure 1. Kristin Peren, *Island'* #V (1995). Print, 67 x 87cm. Private collection, NZ.



Figure 2. Kristin Peren, *Angled Land* (1996) from 'The Irish'. Print, 104 x 96cm. Artist's collection.

Peren's comments signal a development in her perceptions and explorations of core issues and how she determined to give these concerns contemporary expression. Part of this development was due to the time and experience Peren gained while Artist-in-Residence in Dublin at the Black Church Print Studio and during a period spent on the west coast of Ireland in 1996. During the residency Peren began researching Ireland in terms of the land, colonisation, and the historic and



Figure 3-4. Kristin Peren Islands # I and #II (2005). Cast epoxy resin, 25 x 51cm. Private collections. NZ.



Figure 5. Kristin Peren, *Poplars* (2003-05). Five members of Alexandra, Gibbston and Glenorchy schist and barbed wire over steel armatures, 200 x 50cm; varied circumferences. Private collection, Central Otago.



Figure 6. Kristin Peren, Papakura (2005-08). Three epoxy resin forms, approx. 3.7M x 60 x 40cm. Queenstown Events Centre.

on-going ramifications these entail. She began, she says, to fully appreciate the power and agency of history in relation to cultures and their occupancies — not just in Ireland, but much further afield.

The Irish (1996) [Figure 2], compact in size and fired with colour, stand in dramatic contrast to Peren's New Zealand 'Islands' of the previous year. *The Irish*, she says, were the result of really engaging with the west of Ireland, a landscape still visibly steeped in famine history.¹⁶ Peren, who is of Irish descent, was deeply moved by the narrow raised ridges in the landscape used for growing potatoes during the Great Famine, *an Gorta Mór* (1845-1852) and still visible today.

She walked amongst the 'famine ridges' and across blanket¹⁷ peat-bog land peppered with stooks of drying turf beside trench-style cuts.¹⁸ Travelling inland she noticed more fertile land. Much of this, once held by (largely absent) Anglo-Irish landlords, was enclosed behind miles of dry-built stone walls. Peren was struck by the contrast between these cultivated domains, dotted with the remains of 'big houses', and the 'famine ridges' of the West and adjacent bog land.¹⁹ She was also aware of the Troubles in the north of Ireland and says it felt as though smouldering embers of ancient grievances and displacements were flaring up catastrophically in the present.²⁰ She returned to the Dublin print studio and produced *The Irish*.

Peren was both fascinated and horrified by the widespread practice of turf-cutting and burning and says, "It seemed almost sacrilegious, an unsustainable practice. But it has to be understood within the wider historical context and the management of resources. When I returned to New Zealand I began to appreciate something of the scale and causes of deforestation and river depletion occurring not only in New Zealand, but worldwide."



Figure 7. Kristin Peren, *Baleful Fusion* (2009). Compressed recycled rubbish, 340 x 100 x 200cm. Private collection, Central Otago.

The Irish prints are physically small but their thesis is large: the historic razing of the land and the human spirit and the residual aftermath. Peren says that before her travels she saw the landscape of New Zealand as layers upon layers of possibilities, abstract and almost untouched; totally different from the manicured European world. Upon her return, she realised that huge displacements - natural and manufactured have impacted upon these islands despite the lessons of the Old World. She began to look at New Zealand's intensive agricultural practices and acknowledged that a lot of the land is overworked, over-stocked with introduced breeds and species. Excessive irrigation practices contribute to river degradation and contamination, and deforestation.

The residency in Ireland stimulated in Peren a more critical-contextual perspective. It is apparent in *Poplars* [Figure 5] and the concurrent series of bone works, *False Trophies* (2004-07), the constituent materials of which were lifted from the land around Peren's home in the Gibbston

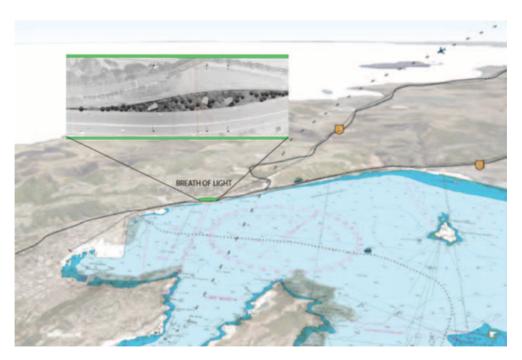


Figure 8. Composite of proposed sculpture site in relation to the land transport access route in Wellington and access via land, sea and air. Image courtesy of Isthmus Group, Wellington.

Valley. In these works it is possible to catch more than a glimmer of Peren's experience during her Irish residency and particularly her perception of the cultural and historical significance of Ireland's stone walls.

Few people will visit Ireland or the UK and remain indifferent to their dry-built stone walls. Beautiful and functional they may be, but in Ireland some were built out of dire necessity. People cleared the land in order to plant food. Others, walls and roads, were famine (1845-1852) projects – labour in exchange for minimal sustenance. Many walls and roads wend their way over mountains, meaninglessly. Yet whether utilitarian or useless, these structures are historical documents about resources and displacement. And, in a similar vein, so is Peren's anti-monumental work, *Poplars*. Shortly after its completion, Peren began work on *Papakura* (2005-08) [Figure 6].²¹

Composed of three huge, highly organic, cast epoxy resin hulls, *Papakura*,²² in terms of intention, scale and impact, confirmed Peren as a multi-skilled and engaged artist.²³ Basically the work is a celebration of light as the source of life. The processes and learning involved in *Papakura* and *Baleful Fusion* (2009) [Figure 7], built from blocks of compressed plastic rubbish, have, Peren says, proved inestimable and informed both her research and the sculpture proposal she submitted to the Wellington Council in response to their call for a 'Northern Gateway Sculpture' (2010) [Figures 14, 15 and 16].²⁴



Figure 9. Heaphy, Charles, 1820-1881. [Heaphy, Charles] 1820-1881: Birdseye view of Port Nicholson, in New Zealand, shewing the site of the town of Wellington, the river and valley of the Hutt and adjacent country, taken from the charts and drawings made during Col[one]I Wakefield's survey, [1839] and now in the possession of the New Zealand Company. Drawn, lithographed by T. Allom [from a drawing by Charles Heaphy]. Printed by Hullmandel & Walton. London, Published by Trelawney Saunders, [1843?]. Ref: C-029-006-b. Alexander Turnbull Library, Wellington, New Zealand. http://natlib.govt. nz/records/22875686. Image courtesy of Alexander Turnbull Library, Wellington.

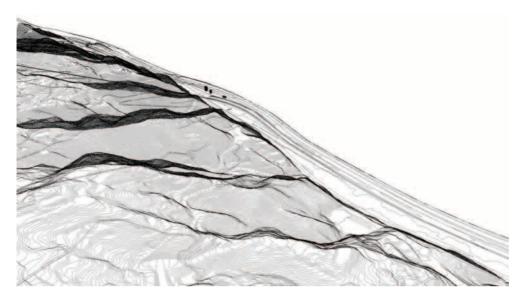


Figure 10. Aerial view of contour lines and proposed sculpture. Image courtesy of Isthmus Group, Wellington.

The Council's brief indicated that the selected work would be sited near the Wellington Urban Motorway (part of State Highway 1), a major road extending from the base of the Ngauranga Gorge into the Wellington CBD. The site was unique and complicated: nestled between the Ngauranga Interchange (State Highways 1 and 2), where the motorway travels south across a narrow piece of land alongside the Wairarapa and North Island main trunk railway lines.

Peren researched the site and responded to the brief with a proposal centred upon the idea of responsibilities, reclamation and recuperation and taking the form of three 'islands'.²⁵ Sited on the edge of the natural amphitheatre of Wellington Harbour, the work was to reference the pre-European history of Te Upoko o te Ika a Maui / Te Whanganui a Tara, juxtaposing this with the contemporary, modified landscape of Port Nicholson. It aimed to encourage cognisance of Wellington's relationship with the land and the active fault lines which the city straddles, referencing the geological processes of uplift and erosion occurring naturally between land and sea.²⁶

Just as much of the capital city's centre is built on reclaimed land, raised up after the major earthquake in 1855, so Peren's proposed 'islands' were intended to add to the dialogue of responsibilities and reclamation on several levels. Their proposed mass and rootedness, topped with native plantings, were not conceived of to contest the natural inexorable geomorphologic energies present. The work, in a seismographic manner, was to register cautions about the underlying geomorphologic processes *and* to critique the cost and significance of the work's constituent materials – rubbish, the origins of which effectively contribute to the despoliation of all land.

The work, engineered from 800 tonnes of compressed recycled rubbish garnered from the communities of Wellington²⁷, built over an armature designed to protect the 'islands' against instability and night-lit with a spectrum of LEDs,²⁸ would, Peren believed, be an addition to an area afflicted by constant coastal erosion.²⁹ The sculpture would restore something of the cultural integrity of the site's three ancient pa. It would be both a product of, and a comment on, urban life and use of resources in relation to the host environment. The sculpture was intended to encourage communities to recognise the imperative responsibilities involved.³⁰

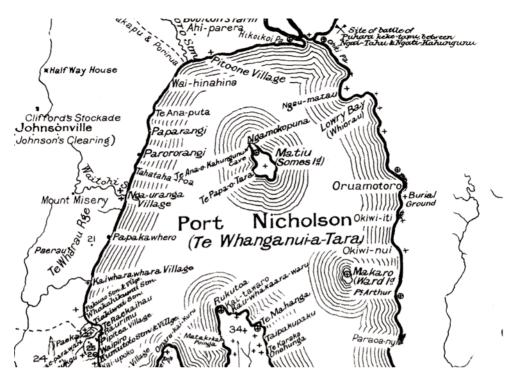


Figure 11. Historical map, Port Nicholson, Te Whanganui-a-Tara. Referencing: the remains of historic pas, villages and occupations. Information supplied by Messrs. Elsdon Best and H. N. McLeod. Map compiled by Mr. H. J. W. Mason and published by the Lands and Survey Department, 1916. '*From Early Wellington*' by Louis Ward (Whitcombe and Tombs, 1929) fig.63.



Figure 12. Park, Robert, 1812-1870. [Park, Robert] 1812-1870 :[Maori dwellings and chapel with whalers' lookout Tutaewera near Kaiwharawhara, Wellington ca 1842]. Ref: NON-ATL-P-0004. Alexander Turnbull Library, Wellington, New Zealand. http://natlib.govt.nz/records/22835899. Image courtesy of Alexander Turnbull Library, Wellington.



Figure 13. Gold, Charles Emilius (Lieutenant-Colonel), 1809-1871. [Gold, Charles Emilius] 1809-1871: Landslip caused by earthquake near Wellington N. Zealand Jan 1855. Ref: B-103-016. Alexander Turnbull Library, Wellington, New Zealand. http:// natlib.govt.nz/records/22330780. Image courtesy of Alexander Turnbull Library, Wellington.



Figures 14 and 15. Artist's impressions of *Breath of Light*, long section and North/South view on the Northern Motorway. Images courtesy of artist with the support of Isthmus Group, Wellington, 2010.



Initially Peren used the working title of *Aurora* because her concept centred on the idea of restoring light and substance to a specific downgraded Wellington site, at the heart of an extensive mountain range.³¹ The whole region is prone to earthquakes,³² affecting all the communities in and around the Hikurangi Trough, through the collision pressures between the Pacific Plate and the Australian Plate. The Pacific Plate is being subducted, pulled under the Australian Plate and is compressing the Wellington Region.

'WHAT'S IN A NAME?'33

During Peren's research she discovered that her working title, *Aurora*, was the name of one of the first ships carrying Europeans into Wellington. She began to question the appropriateness



Situated at the confluence of major movement networks of land, sea and sky, Peren's islands were conceived of as both evincing and critiquing land acquisition, tenancy and consequences, in particular, the building of communities, their use of and impact upon resources.

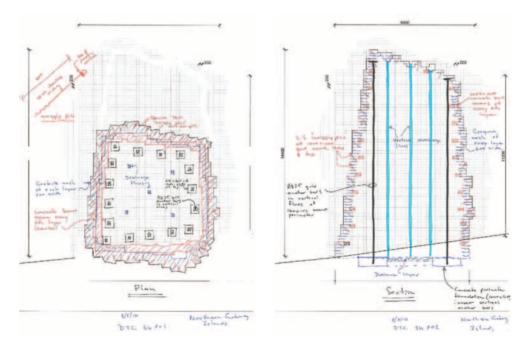


Figure 16. Engineering drawing of proposed sculpture construction of *Breath of Light*, 2010. Image courtesy of Adam Thornton of Dunning, Thornton, consultants for the Wellington Northern Gateway.

of this title and the larger issues it signified. "I wanted to assess the potential impact of the work in relation to local iwi," she says, "and having grown up in Rotorua, I fully appreciate and respect the importance of protocol. And because of the close proximity of the proposed sculpture and its materials to several traditional Maori pas, I sought advice from local kaumatua."

Liz Meluish, Natural Resources Advisor at Port Nicholson Block Settlement Trust, was one of Peren's advisors. "Our conversations," Peren says, "were almost metaphoric. When Liz said that the proposed work would 'restore a breath of light' to the area, it re-affirmed the importance of light in relation to life and communities and the relevance of my proposed sculpture in relation to resources and so I adopted *Breath of Light* as the work's title and was greatly encouraged by Liz's comment that it would, potentially, 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

Peren envisaged that *Breath of Light* would, literally, grow, turning the inorganic into something organic – three living islands – not landfill. Working with a botanist, she began to devise a hydroseeding technology to impregnate the tops of each island with indigenous plant seeds. The intention was that once germinated, these plantings would return the manufactured islands of rubbish to nature.

In her workbook Peren wrote, "The work will involve a delightful irony. We, the contributing communities, will be placing recycled rubbish on the land, as opposed to using it as landfill. Amongst the existing vegetation, we will create 'islands' of reclaimed resources that will eventually be populated by local flora and fauna — a reverse of the previous waves of land acquisition and, therefore, an evolving ecology."

Here in Aotearoa New Zealand and elsewhere, attitudes as to what constitutes sculpture have broadened,³⁴ not just in terms of its expressive materials but, more importantly, its concerns and sites.³⁵ Given the sheer scale and constituent materials of Peren's proposed work, it might well have encouraged us to review our claim to being clean, green-blue, and to re-assess what we consider worth preserving and commemorating publicly.

It is indicative of the conceptual strength of Peren's proposal that several established institutions gave freely of their expertise. They included: the landscape architects, Isthmus; the structural engineering firm of Dunning Thornton Consultants; the landscape ecologist Isobel Gabites and the surveyors, Kwanto. Their input enabled the artist to submit her proposal to the Wellington Council in August 2010, a fully rationalised project plan, including a construction schedule and costs. Subsequently, Peren was delighted when her proposal was one of three short-listed.³⁶

During the night of September 4, 2010, an earthquake caused widespread damage in Christchurch, New Zealand's second largest city. Because it occurred during the night when most people were off the street and because there were few houses of unreinforced construction, there were no immediate fatalities. However, six months later at 12:51pm on February 22, 2011 the city was struck by a 6.3-magnitude earthquake. Hundreds of suburban residents and city workers, stunned and terrified, milled amidst the chaos of collapsing buildings and roads that rose, fell and gaped. One hundred and eighty-five people died and the quake was felt from Invercargill to Wellington.³⁷

"The events of September 2010 and February 2011, particularly the loss of life, and life confidence, were and remain tragic. The aftermath - social, cultural and geographical dismemberments and displacements - continues," Peren says. "And whilst I understand the stasis that has befallen the Wellington Northern Gateway project, I am hopeful that it will be re-visited. If we can acknowledge

the dynamics involved in our geography, then I believe we can still construct projects that add to our communities. We have to invest in and constantly scrutinise the balance between sustainable ecological practices and notions of progress in relation to the land, its resources and its inhabitants. This is what gives us our sense of identity."

Building on the legacy sketched at the outset of this essay and asserting the right to use a repertoire of apparently unappealing materials, sculptural proposals such as *Breath of Light* address global ecological concerns and offer a stream of proliferating associations and issues. Such sculptures pose questions about the contagions of resources, how they flow *or* are impeded by ideological, economic or practical constraints.

That said; let us admit that art will not change the human world and its virulent ways. But, free of dictates, art can be a potent critical presence. It can encourage dialogue about our communities, our actions, and our use of resources.

A public sculpture, especially one in which communities have agency, can take on a life of its own if it is owned and considered relevant by the host communities.³⁸ Given the opportunity, and built from over 800 tonnes of recycled rubbish, could a twenty-first century sculpture such as *Breath* of *Light* generate reflection beyond its materiality? This potential would involve not only the critical acumen behind the concept and its materials, but also the wider public intelligence and agency it seeks to engage in dialogue concerning resources.

ACKNOWLEDGEMENTS: My thanks to Dr. Isa Moynihan (Christchurch), Dr. Brenda Allen and Professor Linda R. Tyler (both of the University of Auckland), all of whom generously read and commented on this article.

- 1 In 1968 Soviet forces invaded Czechoslovakia, ending the Prague Spring liberalisation; in Paris and other European cities students protested against the Vietnam war and racial inequalities; NYU students demonstrated against the reappearance of Dow Chemical Company recruiters on campus. (Dow Chemical was the principal manufacturer of napalm, the toxic chemical burning agent used against human beings and plant life by the US military in Vietnam.) The North Vietnamese launched the Tet offensive (ending in a United States military victory, but a psychological defeat). Dr Martin Luther King, Jr. and Robert Kennedy were assassinated, and the first Black Power salute was seen on Television worldwide during an Olympics medal ceremony. Such events fired the cultural and democratic imagination and actions of the 'New Left'.
- 2 In 1967 curator Germano Celant coined the term Arte Povera to refer to the humble materials used by artists making elemental, anti-elitist art for a group exhibition entitled Arte Povera - IM Spazio at the Galleria La Bertesca, Genoa.
- 3 In the 1960s the term 'anti-form' represented the abandonment of the traditional concept of art and sculpture and its traditional materials.
- 4 Pier Paolo Calzolari, John Chamberlain, Jimmie Durham, Giovanni Anselmo, Joseph Beuys, Barry Flanagan, Eva Hesse, Jannis Kounellis, Mario Merz, Robert Morris, Bruce Nauman and Gilberto Zorio, amongst others.
- 5 See, for example, Robert Morris' Continuous Project Altered

Daily (1969) the materials of which underwent changes during the work's existence and were eventually swept up and disposed of by the artist; also: Robert Morris, 'Anti-Form', *Artforum*, April (1968) Robert Morris, "Anti Form," Artforum, April 1968, reprinted in Continuous Project Altered Daily: The Writings of Robert Morris, Cambridge, Mass., MIT Press, 1993, p. 46.

- 6 The term relates to site-specific, often temporary work, commenting directly upon the past but not as a memorial because it does not enshrine or offer ideological positions or propositions for the future.
- 7 Mark Stocker, Francis Shurrock: Shaping New Zealand Sculpture (Dunedin: Otago University Press, 2001) and Michael Dunn, New Zealand Sculpture: A History (Auckland: Auckland University Press, 2002), particularly 68-129.
- 8 In some respects her work can be aligned with established predecessors such as: Chris Booth, Christine Hellyar, Peter Nicholls, Pauline Rhodes and Bronwyn Taylor, all of whose works consistently focus upon the land and its resources, and imbalances threatening these. See: Priscilla Pitts, *Contemporary New Zealand Sculpture: Themes and Issues* (Auckland: David Bateman Ltd., 1998).
- 9 New Zealand is a relatively small part of a large continent, mostly submerged, known as Zealandia. The land above sea level is either being uplifted or built up by aggradation. This map shows the estimated or measured uplift rates in different parts of the country. The mountain ranges are rising the fastest, in excess of five millimetres per year.

The greatest rate of uplift is on the western side of the Southern Alps. A few areas are slowly subsiding, but most of these are being filled in by sediment carried seaward by the rivers (Carolyn Hume, GNS Science). Eileen McSaveney and Simon Nathan. 'Geology – overview', Te Ara - the Encyclopedia of New Zealand, updated 2-March-2009 http://www.TeAra.govt.nz/en/geology-overview/11/3

- 10 This and all subsequent quotations come from conversations between the artist and writer 1999-2012.
- 11 William Fox (1812-93); Rev. John Kinder 1819-1903); Charles Heaphy (1820-81) and John Buchanan (1819-98) were some of the country's earliest colonial landscape painters.
- 12 This was clearly signalled in the print series, *The Irish* (1996) produced during Peren's residency at The Black Church Print Studio, Dublin, in 1996.
- 13 A poem about bestowing the benefits of English horticulture, including gorse, from A Colonist in his Garden by William Pember Reeves (1857-1932) (London: Allen & Unwin, 1925) 98ff.
- 14 Ibid.
- 15 Schist is formed at high temperatures and high pressures by dynamic metamorphism that aligns the grains of mica, hornblende and other flat or elongated minerals into thin layers, or foliation.
- 16 During the Irish famine, and while Ireland was under British rule, approximately one million people died and a million more emigrated from Ireland, causing the island's population to fall by between twenty and twenty-five percent. The proximate cause of famine was a fungus known as 'phytophthora infestans', a potato disease commonly known as potato blight. Although blight ravaged potato crops throughout Europe during the 1840s, the impact and human cost in Ireland – where one-third of the population was entirely dependent on the potato for food – was exacerbated by a host of political, social and economic factors which remain the subject of historical debate.
- 17 There are two main types of bogs: blanket bogs, generally located in high rainfall and low temperature areas of mountain regions and the West of Ireland; and raised bogs, originating in former lake basins and are mainly concentrated in the central lowlands of Ireland. Bog peat consists of ninety-five percent water; the remaining five percent is made up of rotted plants, pollen and dust. Sphagnum mosses are the peat forming mosses of the bog (twelve different varieties, some containing penicillin). In favourable conditions peat grows at a rate of approximately one millimetre per year; it takes one thousand years to grow one metre.
- 18 The word bog is derived from the Irish word 'bogach', meaning soft. Seventeen percent of the land surface in Ireland is covered in peat, proportionally more than any other country in the world except Canada and Finland. The cutting of peat (called 'turf' when cut) for fuel began in prehistoric times but became widespread in the seventeenth

century and, particularly, during the Famine. It continued at an increasing rate until the mid-twentieth century. About fifteen percent of blanket bog in the Irish Republic, and fifty percent in the North of Ireland, has been destroyed by cutting. See: J. Feehan,; and S McIlveen, S, in The Atlas of the Irish Rural Landscape (Cork: Cork University Press, 1997).

- 19 The 'Great Hunger', An Gorta Mor in Gaelic, happened in an era when millions of people knew only famine, oppression, and degradation. The potato famine itself was a natural disaster such as a flood or an earthquake, and there is no way to predict when such an event will happen. But to be prepared for such an event and to deal with it is the important issue. The English, who ruled all of Ireland at the time, did not remedy the situation. Famine authority, Austin Bourke, comments that there was "a sinister trend toward monoculture." Potatoes, once used as backup for grains, toward the end of the seventeenth century had become an important winter food. By the middle of the eighteenth century, potatoes were a general field crop and a staple diet item of tenant farmers year round.
- 20 The duration of the Troubles is conventionally dated from the late 1960s and considered by many to have ended with the Belfast 'Good Friday' Agreement of 1998. Between 1969 and 2001, 3,526 people were killed. See: Tim Pat Coogan, Ireland in the Twentieth Century (UK: Palgrave Macmillan, 2006 also Marianne Elliot, The Long Road to Peace in Northern Ireland: Peace Lectures from the Institute of Irish Studies at Liverpool University (Liverpool: Liverpool University Press, 2007).
- 21 Papakura translates as red or glowing earth.
- 22 Each of the three forms hosts an elaborate composition of six rods containing over 22,000 light-emitting diodes (LEDs), electronically controlled and designed to deliver an ever-changing dance of spirits.
- 23 Peren comments: "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."
- 24 Council funds for the project of \$900,000 were to be administered by the Wellington Sculpture Trust. The Selection Panel included: Ian Athfield, Vivien Atkinson, Sue Elliott, Helen Kedgley, Chris McDonald, Neil Plimmer and Martin Rodgers.
- 25 The three sculptural islands reference the *kainga* and hilltop pa that were located along the harbour edge and would have functioned as *kaitiaki* (guardians) of this unique entry to the city.
- 26 From certain angles, Peren's forms resemble moraines, accumulations of boulders, gravel or other debris carried and deposited by a glacier. From other angles the forms resemble drumlins (long, narrow, whale-shaped hills of gravel, rock and clay debris, formed by the movement of a glacier) and eskers (long, narrow ridges of gravel and

sand deposited by a stream flowing in or under a retreating glacier. The forms suggest a geographer's understanding of nature's formative forces.

- 27 Forged into rectangular interlocking blocks by an existing technology and secured vertically and horizontally by specific earthquake techniques.
- 28 Light-emitting diodes.
- 29 Geologists and geographers note that Nature 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. 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, before eventually being driven into the hinterlands with the arrival of Europeans.
- 30 The world consumes in excess of eighty million tonnes of plastic per annum. Per capita, per annum this equates to:

USA	121kg
England	49kg
NZ	45kg
China	28kg
India	6kg

The world's proposed best efforts are to recycle up to forty percent of consumed plastic but, typically, an average of only ten percent is achieved. This is currently the case in Wellington. Figures such as these raise questions about the impact of the oil and gas industries on the environment. Is what we discard waste or misplaced resources following manufacturing activities and treatment processes? See: http://cipet.gov.in/plastics_ statics.html; www.plasticseurope.org/plastics-industry/ market-and-economics.aspx; See: Richard Gran, "Drowning in Plastic: The Great Pacific Garbage Patch," Telegraph, 24 October 2009. www.telegraph.co.uk/earth/ environment/5208645/Drowning-in-plastic-The-Great-Pacific ...; also Andres Peyrot, Plastic Continent Ahoy!; oceans.taraexpeditions.org/en/plastic-continent-ahoy. php?id

31 The region has a foundation of Torlesse Greywacke, hardened sandstone and mudstone with chert and pillow lava elements) that make up the Tararua and Rimutaka Ranges, stretching from Wellington in the South, to to the Manawatu Gorge where they are re-named as the Ruahine Ranges, and continuing further north-east 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.

- 32 The biggest in historical times being the magnitude 8.2 Wairarapa Earthquake in 1855. Damage from this earthquake is still visible, particularly the large landscape slip between Ngauranga and Korokoro). Although bush has overgrown the slip, the dramatic change in terrain is still visible. There are several major earthquake faults in the region.
- 33 From Shakespeare's Romeo and Juliet (II, ii, 1-2).
- 34 The turn of the twentieth century witnessed a two-way aesthetic traffic: the exodus of many promising young artists to Europe and the arrival of European-trained masons, sculptors and teachers. After WWI home-grown practitioners gained ground. Challenges to inherited artistic conventions became manifest around the 1940s, born of an increasing awareness of the country's unique geographical and cultural differences and seeking a wider, freer expression in local materials.
- 35 While public sculpture is a relatively new art form in Aotearoa New Zealand, several scholars indicate that it is no longer inflected by dominant influences from elsewhere. Michael Dunn, *New Zealand Sculpture: A History* (Auckland: Auckland University Press, 2002) and Priscilla Pitts, *Contemporary New Zealand Sculpture: Themes and Issues* (Auckland: David Bateman Ltd.,1998)
- 36 When Neil Plimmer (Chair of the Wellington Sculpture Trust) announced the shortlist of three finalists: Kristin Peren (Central Otago), Phil Price (Christchurch) and Paul Rolfe and Arini Poutu (Wellington), he said that they had been chosen from a rich body of submissions, including overseas competition, for the proposed \$900,000 Gateway Sculpture.
- 37 There have been over 9,300 aftershocks since January 2012.
- 38 Peren says, "Public involvement would be central not only to the underlying concept of *Breath of Light*, but also to the construction and subsequent life of the work and its site, parallel to the existing highway, railway and sea traffic. Working with my media savvy (eldest) daughter, I'd like to make a documentary to raise education about plastics in general and the importance of recycling in particular. The documentary could archive, promote and sustain interest during construction as well as encourage people to be aware of the resource imperatives involved."