

Final PBRF 2018 Portfolio - Massey University

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Panel and Subject Creative and Performing Arts | Design

**Platform of Research
Contextual Summary**

My communication design research focuses on innovative systems to facilitate access to and understanding of complex information, predominantly science (particularly environmental and social issues), and nonfiction narratives. It uses design to foreground credibility and comprehension to affect change. My work marries functional and aesthetic elements within interactive and analogue works, including websites, data visualisations, books, brand communication systems, exhibition and installation design.

This research and its impact is exemplified through LAWA: Land, Air, Water Aotearoa (NRO1), a multi award-winning website (RC1,3) incorporating scientific information and data visualisation about NZ's environmental monitoring. LAWA is a national platform offering multi-level access to data based on user expertise. It applied visual communication best practice to computer science principles established by Professor Ben Shneiderman and others, predominantly an 'overview first, zoom and filter, then details-on-demand' user experience. Several facets of LAWA have been presented nationally and internationally (ORO8-10). Innovative website systems were also produced for NRO3 and ORO3-5.

Experimental publication systems form key components of Extraordinary Anywhere (NRO2), which employed a novel content 'map' to join functional navigation with expressive typography and illustration. Make/Use (NRO3) uses an encoded wayfinding system which was communicated through brand elements, a typeface and a multi-part publication. Book series design for Te Papa and Massey University Press (ORO1-2) also apply graphic systems to non-fiction content.

Science communication through exhibition design is key to Whakatairangitia, rere ki uta, rere ki tai (NRO4), in which typographic frameworks brought clarity and identity to a multi-stakeholder project in an exhibition context.

I make important contributions to the design community serving as a co-chair of SEG (Society for Experiential Graphic Design) and as an invited member of their Academic Task Force (RC9). I take an active role in the supervision of postgraduate students (RC12) and have developed funded postgraduate opportunities with GNS Science and the Joint Centre for Disaster Research (RC11).

In 2017, I was awarded a Te Pūnaha Matatini (Centre of Research Excellence) scholarship (RC2) to undertake a PhD at Victoria University that will apply design to science communication as a reflexive, interdisciplinary practice.

Field of Research

Visual communication design, information design, science communication, typography, user experience and user interface design

Receive Score

Yes

Nominated Research Outputs (NRO)

NRO #1 Bailey, J., & Brown, A. (2014). *LAWA: Land Air Water Aotearoa* [Website (including data visualisation) and brand system (including logo, video and associated assets)]. New Zealand. Retrieved from <http://www.lawa.org.nz/>

Title LAWA: Land Air Water Aotearoa

Abstract	LAWA is an innovative website that makes environmental data available to the public in a clear and engaging manner. Commissioned by Local Government New Zealand (LGNZ), it was a multi stakeholder project including regional councils/unitary authorities (owners of the data); MFE; Cawthron Institute (scientific consultants) and Massey University with funding from the Tindall Foundation. Web development/build was by IT Effect. In Phase 1, Open Lab strategised, conceptualised and realised the project's identity, the associated website's purpose and visual language. This was then developed into a system to communicate freshwater data in phase 2. In the third phase, the framework and visual system were extrapolated and adapted for further modules: coastal water; water quantity and air quality, and enhancements made to the UX/UI. Quality assurance and approval was via the LAWA steering group (selected Chairs of Regional Councils) and scientists from MFE and the local government sector. The project won the inaugural SCANZ (Science Communicators Association of New Zealand) Excellence in Science Communication Award and was a Best Awards finalist (RC).
Authors	Bailey J; Brown A
Publication date	01 January 2014
Publisher URL	http://www.lawa.org.nz/
Medium	Website (including data visualisation) and brand system (including logo, video and associated assets)
Confidential Design	No
Place of publication	New Zealand
Commissioning body	Local Government New Zealand (LGNZ)
Quality Assured	No
PBRF Type	Creative Work
Author Contribution (if multiple authors)	Creative Lead, directing all aspects of LAWA design over a four year period, a role that included designing site architecture, user experience and interface. Developed product name, logo and associated assets; wrote and directed introductory video; oversaw testing. Sole author of data visualisation and conceptual multi-level experience for users with differing expertise, and a glossary/explanation lookup system. Led engagement with scientists and developers. Anna Brown oversaw liaison with the steering group and contributed to all stages. Multiple designers, staff of Local Government New Zealand (LGNZ), the Ministry for the Environment (MFE) and the Cawthron Institute, and developers had input into the content, contextualisation, and design process.
NRO Description	LAWA was named a "world first" in making whole country environmental data comparable across regions on a single platform (RC5). Blending best practice visual communication with usability principles drawn from computer science and other fields, it makes data transparent and meaningful for all users. It was commissioned by LGNZ; MFE and Cawthron Institute (scientific consultants) were key partners. The project included identity (including name) development, the website's purpose and visual language, and a system to communicate freshwater data. This system was subsequently extrapolated and adapted for further modules (coastal and lake water quality, air quality, water quantity). Quality assurance was via the LAWA steering group (Council chairs) and stakeholder scientists. LAWA won the inaugural SCANZ Excellence in Science Communication Award (RC1) and was a Best Awards finalist (RC3). Facets of the research have been presented at conferences internationally and nationally (RC8–10).
Quality Assured	Yes
Main Research Object URI	MU_PBRF_Bailey_NRO1.pdf

Main Research Object Video No

Cross Reference to Maori Panel No

Cross Reference to Pacific Panel No

NRO #2 Bailey, J., & Brown, A. (2016). *Extraordinary Anywhere: Essays on Place from Aotearoa New Zealand* [book design including internals, cover and visual content map]. Editors: Lacey, C and Horrocks, I., Wellington, New Zealand: Victoria University Press. Retrieved from <http://vup.victoria.ac.nz/>

Title Extraordinary Anywhere: Essays on Place from Aotearoa New Zealand

Abstract ISBN: 9781776560707

Authors Bailey J; Brown A

Publication date 01 January 2016

Publisher URL <http://vup.victoria.ac.nz/extraordinary-anywhere-essays-on-place-from-aotearoa-new-zealand/>

Medium book design including internals, cover and visual content map

Confidential Design No

Publisher Victoria University Press

Place of publication Editors: Lacey, C and Horrocks, I., Wellington, New Zealand

Commissioning body Victoria University Press

Status Published

Quality Assured Yes

PBRF Type Creative Work

Author Contribution (if multiple authors) I led the development of the conceptual visual contents map (located in the dust jacket) and the production of interpretive collage illustrations throughout. In an open and fluid collaborative design process with Anna Brown, I co-developed cover design, interior typographic and colour system and book typesetting. Anna led the engagement with the editors.

NRO Description Extraordinary Anywhere is a nonfiction book reimagining the idea of place, featuring conceptual navigation elements and a refined visual system. From the editors' perspective, design formed an integral part of the research from the outset, shaping written content, structure and identity. The result is an aesthetic synthesis drawn from our interpretation of the essays, communicating the varied narratives of 16 authors through collaged ephemera illustration. Influenced by maps as repositories of memory and as navigational aids, the dust jacket acts as a novel visual contents page using the happenstance placement of essay illustrations on a page number grid; an assemblage defined the same way geographical features define a map. As designers, Anna and I co-authored an essay in the book about the book's design process (ORO7). The book was named Best Non-Illustrated Book 2017 (PANZ Book Design Awards, RC1). It has been reissued for a rare second edition and garnered positive reviews (RC6).

Quality Assured Yes

Main Research Object URI MU_PBRF_Bailey_NRO2.pdf

Main Research Object Video	No
Cross Reference to Maori Panel	No
Cross Reference to Pacific Panel	No

NRO #3	McQuillan, H., Archer-Martin, J., Bailey, J., Fox Derwin, E., Kane, K., O'Hara, J., . . . Stewart-MacDonald, B. (2015). <i>Make/Use</i> [multimedia zero waste fashion project, exhibition and website]. Auckland, NZ: Objectspace, 11 July - 8 Aug 2015. Retrieved from http://archive.objectspace.org.nz/Exhibitions/Detail/Make/Use.html
Title	Make/Use
Abstract	Make/Use built a community of early adopters around a new wave of product design strategies that empower users to make, use, re-make and re-use. The research centres around the development and testing of an embedded navigational system by which users can formulate a functional understanding of the construction of a garment/object and its opportunities for manipulation. It asks: How might the encoding of navigational clues and markers into a garment or product aid in its facility for creation and modification by the user, thereby enhancing emotional investment and connection, and extending its functional life? Building on current leading research in zero-waste design and production strategies, how might this strategy extend the post-production lifespan, thereby both further reducing material waste, and slowing the demand for the production of new consumer goods and materials, to the benefit of global ecologies? The interdisciplinary research & development team comprises established and emerging researchers in the fields of fashion, spatial, industrial, textiles and visual communication design. This stage of the Make/Use project culminated in an exhibition-event that introduced the system to the public and created a collaborative and open-source environment for shared learning and engagement.
Authors	McQuillan H; Archer-Martin J; Bailey J; Fox Derwin E; Kane K; O'Hara J; Menzies G; Stewart-MacDonald B
Author URL	https://makeuse.nz/
Publication date	01 January 2015
Publisher URL	http://archive.objectspace.org.nz/Exhibitions/Detail/Make/Use.html
Medium	multimedia zero waste fashion project, exhibition and website
Confidential Design	No
Publisher	Objectspace, 11 July - 8 Aug 2015
Place of publication	Auckland, NZ
Status	Published
Quality Assured	Yes
PBRF Type	Creative Work

**Author Contribution
(if multiple authors)**

Individual contributions were:
System + project development: all
Written texts: McQuillan, Archer-Martin
Textile + Fashion collection: McQuillan, Menzies
Identity + communication: Bailey, Kane
Website: Bailey
Video: O’Hara
Workshops: McQuillan, Archer-Martin
Exhibition Design: Archer-Martin
Exhibition Furniture: Archer-Martin, Fox Derwin
Photography: Stewart-MacDonald

I was lead designer of the logo and brand system and associated open source modular typeface. I designed/tested a poster system (limited edition screen print with Greta Menzies; digital posters). I was sole designer of the 5 ‘tear off’ publications utilising the typeface and a grid system to communicate zero waste design principles and assembled as the exhibition publication. I designed the website to open source patterns and typeface, and designed garment labelling and signage for the Objectspace Gallery exhibition.

NRO Description

Make/Use was a collaborative interdisciplinary project that developed, positioned, exhibited and communicated an open-source zero-waste garment system and sought to question industry conventions in relation to knowledge-keeping, production and material use. Through developing open-source, user-modifiable zero waste designs, Make/Use empowered users and challenged them to question the relationships they have with their present and future garments. Objectspace Gallery commissioned and part-funded a solo exhibition of design from the Make/Use project in 2015. The exhibition ran for a month, and incorporated residencies, workshops and a multi-part publication that assembled as a set. Make/Use garments, publication, video and website were purchased by Te Papa for their permanent collection (RC5). The exhibition was the recipient of a DINZ Best Award in 2016 (RC3) and the Open Source in the Arts Award 2016 (RC1). The Make/Use website has had circa 50,000 page views (RC5).

Quality Assured

Yes

**Main Research Object
URI**

MU_PBRF_Bailey_NRO3.pdf

**Main Research Object
Video**

No

**Cross Reference to
Maori Panel**

No

**Cross Reference to
Pacific Panel**

No

NRO #4

Smith, H., Allan, P., Bryant, M., Manning, M., Bailey, J., Richardson, J., . . . Hardy, D. (2017). *Whakatairangitia rere ki uta, rere ki tai exhibitions* [Exhibition]. The Dowse Art Museum (14 April–30 July), Dairy Sheds 436 Kuku Beach Road (11–12 March).

Title

Whakatairangitia rere ki uta, rere ki tai exhibitions

Abstract	The third exhibition of the Wai o papa series was held in a cluster of disused dairy sheds on the Ngāti Tukorehe shareholders’ farm, on a site renowned for its cultural importance within wider ancestral landscape. This exhibition endeavour on Tahamata Incorporation’s farm brought interdisciplinary work in art, culture, design and science together from an indigenous perspective. The exhibition not only communicated climate change content, but also showed experiments to spatially and intuitively communicate Māori values, while activating for implementation, a series of critical adaptations.
Authors	Smith H; Allan P; Bryant M; Manning M; Bailey J; Richardson J; Richards A; Spinks A; Poutama M; Shelton A
Venue	The Dowse Art Museum (14 April–30 July), Dairy Sheds 436 Kuku Beach Road (11–12 March)
Start date	01 January 2017
Quality Assured	Yes
PBRF Type	Creative Work
Author Contribution (if multiple authors)	I developed and produced a bilingual typographic and visual system for the Whakatairangitia, rere ki uta, rere ki tai: Climate Change Adaptation Strategies project.
NRO Description	Whakatairangitia, rere ki uta, rere ki tai was a multi-phase, multi-stakeholder project supported by National Science Challenge funding. It utilised whakapapa (genealogy), hīkoi (walking) and kōrero tuku iho (ancestral knowledge) to activate understanding of climate change, and the development of transition plans to help hapū and iwi adapt their land and community planning. This synthesis of indigenous knowledge, art, design and science was communicated via two exhibitions for which I undertook the typography, visual communication and information system design. This required the translation of multifaceted outputs through a visually engaging, appropriate and harmonious system that connected the pressing science with the whenua. This was used in a site-specific exhibition at Kuku Beach, Horowhenua, and a commissioned installation in the Dowse Art Museum as part of the exhibition ‘This Time of Useful Consciousness—Political Ecology Now’.
Quality Assured	Yes
Main Research Object URI	MU_PBRF_Bailey_NRO4.pdf
Main Research Object Video	No
Cross Reference to Maori Panel	No
Cross Reference to Pacific Panel	No

Other Research Outputs (ORO)

ORO #1	Bailey, J., & Brown, A. (2014). <i>Te Papa Tongarewa book series</i> [book design system; 3 hardback colour board books, 15mm x 15mm. My New Zealand ABC Book: Learn the alphabet with art and objects from Te Papa; My New Zealand Colours Book: Learn colours with art and objects from Te Papa; My New Zealand 123 Book: Learn counting with art and objects from Te Papa]. Wellington, New Zealand: Te Papa Press. Retrieved from http://www.tepapa.govt.nz/
Title	Te Papa Tongarewa book series

Abstract	A three part children's book series commissioned by Te Papa. These board books employ a considered system of colour, typography and image in a way that is both sophisticated and vibrant, recognising that a children's book has to appeal to, and engage both adults and children. Designed as a means of introducing a new generation to the art and objects of the Te Papa collection, we worked with the Te Papa curatorial team to select a collection that allowed considered composition. As a design process, we employed a user-centred approach, including engaging children from a local kindergarten in the design process and as test participants. Work was undertaken through Open Lab at Massey University. The books were listed in the New Zealand Listener Top Children's Books 2014 and were reviewed positively in the New Zealand Herald and the New Zealand Book Council 'Peer Review' publication. They were the recipient of a DINZ Best Award in 2015.
Authors	Bailey J; Brown A
Publication date	12 November 2014
Publisher URL	http://www.tepapa.govt.nz/TePapaPress/FullCatalogue/Art/Pages/ThreeCoolBoardBooks.aspx
Medium	book design system; 3 hardback colour board books, 15mm x 15mm. My New Zealand ABC Book: Learn the alphabet with art and objects from Te Papa; My New Zealand Colours Book: Learn colours with art and objects from Te Papa; My New Zealand 123 Book: Learn counting with art and objects from Te Papa
Confidential Design	No
Series	978-0-9876688-7-5; 978-0-9876688-8-2; 978-0-9876688-9-9
Edition	First
Publisher	Te Papa Press
Place of publication	Wellington, New Zealand
Commissioning body	Te Papa Press
Status	Published
Quality Assured	Yes
PBRF Type	Creative Work
Quality Assured	Yes
Cross Reference to Maori Panel	No
Cross Reference to Pacific Panel	No

ORO #2	Bailey, J., Brown, A., Le Bas, T., & Wiseman, M. (2015). <i>Book series systems (five) commissioned by Massey University Press: Poetry New Zealand (2017); The Journal of Urgent Writing (2016); Massey Texts (2015); Land & Food Annual (2016) Thinking About: Objects from Te Papa (2017); Home: New Writing (2017) (multi-edition book systems)</i> [multi-edition book design systems: various formats, colour]. Massey University Press, New Zealand. Retrieved from http://www.masseypress.ac.nz/
Title	Book series systems (five) commissioned by Massey University Press: Poetry New Zealand (2017); The Journal of Urgent Writing (2016); Massey Texts (2015); Land & Food Annual (2016) Thinking About: Objects from Te Papa (2017); Home: New Writing (2017) (multi-edition book systems)

Abstract Massey Texts was the first series Massey University Press. A system was designed (through Open Lab, Massey University's in house design studio) to allow disparate subjects to be communicated through a single visual system (Bailey, Le Bas, Brown, Wiseman). Poetry New Zealand employs a vibrant typographic system for covers over multiple years (Bailey, Le Bas) and was a commission from MUP; The Journal of Urgent Writing is a cover system utilising photography, typography and colour choice to communicate topical contemporary issues (Bailey); Thinking About is an upcoming series that uses colour, typography and illustration to build a visual connection over a series of essay books informed by objects from Te Papa (Bailey).

Authors Bailey J; Brown A; Le Bas T; Wiseman M

Publication date 01 January 2015

Publisher URL <http://www.masseypress.ac.nz/>

Medium multi-edition book design systems: various formats, colour

Confidential Design No

Publisher Massey University Press, New Zealand

Commissioning body Massey University Press

PBRF Type Creative Work

Quality Assured Yes

Cross Reference to Maori Panel No

Cross Reference to Pacific Panel No

ORO #3 Bailey, J., Brown, A., & Jeppesen, T. (2015). *Studio Pacific Architecture website* [Website information architecture, visual system including icon-based filtering, user interface design, user experience]. New Zealand. Retrieved from <http://www.studiopacific.co.nz/>

Title Studio Pacific Architecture website

Abstract Studio Pacific Architecture, a highly respected and prominent architecture practice, commissioned Open Lab to design a new responsive website. As the studio's design output is distinctive and varied, the site needed to function as a framework to showcase the high quality output whilst subtly conveying the personality philosophy of the practice. Through a process of co-design workshops with architects and designers from the practice, a versatile system was developed to manage these tensions. Using a clean, structured grid and associated typographical system, images can be placed and curated for maximum impact. The site has an icon-based filtering system that aids the user experience, but also introduces subtle elements of humanism and humour.

Authors Bailey J; Brown A; Jeppesen T

Publication date 01 July 2015

Publisher URL <http://www.studiopacific.co.nz/>

Medium Website information architecture, visual system including icon-based filtering, user interface design, user experience

Confidential Design No

Place of publication New Zealand

Commissioning body Studio Pacific Architecture

Quality Assured No

PBRF Type Creative Work
Quality Assured Yes
Cross Reference to Maori Panel No
Cross Reference to Pacific Panel No

ORO #4 Bailey, J. (2014). *Bull O'Sullivan Architecture website* [Information architecture, visual system, user interface design, user experience]. Retrieved from <http://bosarchitecture.co.nz/>

Title Bull O'Sullivan Architecture website

Abstract Bull O'Sullivan Architecture, a leading architecture practice based in Auckland, commissioned me to design a website that would compliment their aesthetic style and philosophical approach, whilst being simple to manage and visually engaging in its own right. It also had to be responsive for access on all devices. I defined an information architecture to maximise the user experience in terms of simple negotiation of the space/content (using a framework of featured/overview content, leading to zooming or filtering content, leading to 'details on demand'),but offering the user the possibility of being surprised and enticed to engage with buildings through a novel homepage/project section experience. The homepage features a system that allows the website manager to curate an intriguing combination of images, encouraging the 'cropping' (or more accurately framing, as the content management system is used to select the part of an image to focus on) of portfolio photographs to engage the viewer through interesting highlighting of features. The results is a textural mosaic of building elements, from which a user can quickly navigate for further information and full size images. My role was sole designer, and included scoping and designing all elements of the site and overseeing the build.

Authors Bailey J

Publication date 01 January 2014

Publisher URL <http://bosarchitecture.co.nz/>

Medium Information architecture, visual system, user interface design, user experience

Confidential Design No

Commissioning body Bull O'Sullivan Architecture

Status Published

Quality Assured No

PBRF Type Creative Work

Quality Assured Yes

Cross Reference to Maori Panel No

Cross Reference to Pacific Panel No

ORO #5 Parkin, T., Whitty, J., McQuillan, H., Holdaway, S., Bailey, J., & Brown, A. (2015). *Space Between online platform: sustainable fashion e-commerce strategies* [Interactive Website]. Wellington, New Zealand: Space Between. Retrieved from <http://www.spacebetween.ac.nz/>

Title Space Between online platform: sustainable fashion e-commerce strategies

Abstract	This research investigates on-line user experience strategies and e-commerce processes to motivate an ethical shift in the fashion industry by challenging the existing paradigm, which subscribes to concepts of fast fashion and planned obsolescence.
Authors	Parkin T; Whitty J; McQuillan H; Holdaway S; Bailey J; Brown A
Publication date	23 April 2015
Publisher URL	http://www.spacebetween.ac.nz/
Medium	Interactive Website
Confidential Design	No
Publisher	Space Between
Place of publication	Wellington, New Zealand
Quality Assured	Yes
PBRF Type	Creative Work
Quality Assured	Yes
Cross Reference to Maori Panel	No
Cross Reference to Pacific Panel	No

ORO #6	Sparks, T., & Bailey, J. (2016). <i>Crisis mapping before a crisis: a trans-situational map for the CDEM sector</i> . Wellington, New Zealand: Massey University.
Title	Crisis mapping before a crisis: a trans-situational map for the CDEM sector
Authors	Sparks T; Bailey J
Confidential report	Yes
Commissioning body	Wellington Regional Emergency Management Office (WREMO)
Publisher	Massey University
Place of publication	Wellington, New Zealand
Publication date	01 January 2016
Quality Assured	Yes
Status	Published
PBRF Type	Report
Quality Assured	No
Cross Reference to Maori Panel	No
Cross Reference to Pacific Panel	No

ORO #7	Bailey, J., & Brown, A. (2016). Designing Place. In C. Lacey, & I. Horrocks (Eds.), <i>Extraordinary Anywhere: Essays on Place from Aotearoa New Zealand</i> . Wellington, New Zealand: Victoria University Press. Retrieved from http://vup.victoria.ac.nz/
Title	Designing Place
Authors	Bailey J; Brown A
Chapter number	Dust Jacket

Book title	Extraordinary Anywhere: Essays on Place from Aotearoa New Zealand
Number of chapters in book	1
Editors	Lacey C; Horrocks I
Publisher	Victoria University Press
Publisher URL	http://vup.victoria.ac.nz/extraordinary-anywhere-essays-on-place-from-aotearoa-new-zealand/
Place of publication	Wellington, New Zealand
Publication date	01 July 2016
ISBN-10	1776560701
ISBN-13	9781776560707
Output Type	Research
Quality Assured	Yes
Confidential	No
Notes	Book design and design colophon chapter within Extraordinary Anywhere: Essays on Place from Aotearoa New Zealand. Co-authorship and design by Jo Bailey/Anna Brown.
Status	Published
PBRF Type	Chapter in Book
Quality Assured	Yes
Cross Reference to Maori Panel	No
Cross Reference to Pacific Panel	No

ORO #8	Doehring, K., & Bailey, J. (2013, August 19). The land and water New Zealand web tool: Where have we come from and where are we heading. In <i>Joint Conference for New Zealand Freshwater Sciences Society, New Zealand Marine Sciences Society and the Australian Society for Fish Biology: Aquatic Science at the Interface</i> . University of Waikato, Hamilton, New Zealand. Retrieved from https://drive.google.com/file/d/131VxgqWqJ-5uq0WYsTVScvNn3lu_YXKV/view
Title	The land and water New Zealand web tool: Where have we come from and where are we heading
Abstract	Regional Councils, the Cawthron Institute and Massey University with the help from the Tindall Foundation are currently working to improve the Land and Water NZ website (LAWNZ, www.landandwater.co.nz) which informs people about New Zealand's river water quality. Our vision for the new website is for a respected, publicly accessible and easy to use tool which will act as a 'One-stop shop' for New Zealand's public to improve awareness of fresh water issues, increase the number of initiatives to improve fresh water quality, and facilitate the exchange and sharing of water quality information between all interested groups. This talk summarises how far we've got to date with the new website design, including the steps involved to develop this tool and where we are aiming to take this resource.
Authors	Doehring K; Bailey J
Author URL	https://drive.google.com/file/d/131VxgqWqJ-5uq0WYsTVScvNn3lu_YXKV/view

Name of conference	Joint Conference for New Zealand Freshwater Sciences Society, New Zealand Marine Sciences Society and the Australian Society for Fish Biology: Aquatic Science at the Interface
Conference place	University of Waikato, Hamilton, New Zealand
Conference start date	19 August 2013
Conference finish date	23 August 2013
Quality Assured	No
Confidential	No
PBRF Type	Conference Contribution - Other
Quality Assured	No
Cross Reference to Maori Panel	No
Cross Reference to Pacific Panel	No

ORO #9 Bailey, J., & Sparks, T. (2017, February 23). LAWА (Land Air Water Aotearoa): A human-centred design process case study for science communication. In *Australian Science Communicators Conference 2017*. The Science Exchange, Adelaide, Australia. Retrieved from <http://2017conf.asc.asn.au/speakers17/jo-bailey/>

Title LAWА (Land Air Water Aotearoa): A human-centred design process case study for science communication

Abstract LAWА (Land Air Water Aotearoa) is a website designed with the purpose of making scientific information on New Zealand's environment available to the public in an easily comprehensible, credible and trustworthy way.

LAWА is a collaboration between New Zealand's 16 regional councils and Unitary Authorities, the Cawthron Institute, Massey University and the Ministry for the Environment.

When it launched in 2013, LAWА was a world first in terms of making national water quality information accessible on a single platform. It has since grown to include the water quality of lakes and beaches alongside rivers, air quality, and water quantity (available for consented use), with other indicators in the pipeline.

In this project, the role of science communication was undertaken by designers, who acted as a facilitating bridge between government (scientists, communicators and management at the local government and ministry level) and the audiences or users of the website.

This case study will share observations on the design process that led to the successful launch of LAWА in 2013, and which has seen the tool embraced by the science, policy, government and academic communities, as well as (most importantly) the (non-stakeholder) users. (In addition, it also led to it being recognised as the 2015 Excellence in Science Communication Award Winner by SCANZ).

Authors Bailey J; Sparks T

Author URL <http://2017conf.asc.asn.au/speakers17/jo-bailey/>

Name of conference Australian Science Communicators Conference 2017

Conference place The Science Exchange, Adelaide, Australia

Conference start date 23 February 2017

Conference finish date 24 February 2017

Quality Assured Yes

Confidential No

PBRF Type Conference Contribution - Other

Quality Assured No

**Cross Reference to
Maori Panel** No

**Cross Reference to
Pacific Panel** No

ORO #10 Brown, A., & Bailey, J. (2013, November 6). Design conversations: Design conservation. In *Design for Conservation Symposium*. Lincoln University, Christchurch, New Zealand.

Title Design conversations: Design conservation

Abstract Open Lab is a design studio within the College of Creative Arts at Massey University, Wellington. Open Lab provides a dynamic interface between design education, academic research and Aotearoa/New Zealand's business and wider communities. Two current Open Lab projects seek to engage the public with conservation and environmental issues; one through spatial experience design, the other in the digital space. Wildbase Recovery is a proposed rehabilitation centre for native birds that have been treated by Massey University's vet school in Palmerston North, and is a partnership between the university and Palmerston North City Council. It is a unique experience, giving New Zealanders and international visitors a rare opportunity to engage with the stewardship of our native taonga. Wildbase Recovery is not a zoo exhibition or show but a dynamic, close-up insight into leading vet and conservation practice in a working environment. Open Lab were successful in their bid to design the interpretative space for Wildbase Recovery. Research staff, graduates and students have collaborated to design the digital and physical interactives, modular furniture, graphic displays and other spatial interventions all aimed at educating users and encouraging them to engage and ultimately be inspired to act. To complement viewing of patients in the aviaries, physical and digital interactives immerse users in the world of nga manu and the vets and communities caring for them. Two key concepts have informed the design elements: 'Waka huia', a treasure chest, and 'Roost': a safe, nurturing place for animal patients while they're prepared for return into the wild. Building of the facility is currently scheduled to start in 2015.

Land and Water Aotearoa is an online tool charged with making scientific data more accessible to the public in a clear and engaging manner. It is a collaboration between regional councils, the Ministry for the Environment, the Cawthron Institute and Massey University. Open Lab has worked with the project partners and potential users to develop a website to enable the translation of scientific data so it can be easily understood by all water users, and contribute to increasing engagement with water issues. Through the design process, we have explored methodologies, processes, tools and techniques with which to democratise access to complex scientific information, and to foreground credibility, transparency and trustworthiness in design for the web. The resulting website will be released to the public in January 2014.

Authors Brown A; Bailey J

Name of conference Design for Conservation Symposium

Conference place Lincoln University, Christchurch, New Zealand

Conference start date 06 November 2013
Conference finish date 07 November 2013
Quality Assured No
Confidential No

PBRF Type Conference Contribution - Other
Quality Assured No
Cross Reference to Maori Panel No
Cross Reference to Pacific Panel No

ORO #11 Bailey, J., & Kapica, N. (2016, June 8). Experience in Principle: Experience in Practice—Curriculum-informed service design and placemaking. In *Society for Experiential Graphic Design*. The Westin, Seattle, Washington, USA.
Title Experience in Principle: Experience in Practice—Curriculum-informed service design and placemaking
Authors Bailey J; Kapica N
Name of conference Society for Experiential Graphic Design
Conference place The Westin, Seattle, Washington, USA
Conference start date 08 June 2016
Conference finish date 11 June 2016
Quality Assured Yes
Confidential No

PBRF Type Conference Contribution - Other
Quality Assured No
Cross Reference to Maori Panel No
Cross Reference to Pacific Panel No

ORO #12 Bailey, J., & Sparks, T. (2017). Prepare Wellington: Trans-situational mapping in a crisis. What can contextually relevant information offer science communication?. In *Australian Science Communicators National Conference 2017*. Adelaide, Australia.
Title Prepare Wellington: Trans-situational mapping in a crisis. What can contextually relevant information offer science communication?
Abstract New Zealand is a seismically active country with a small population distributed over a relatively large geographical area. Due to a combination of economic reality, government policy and a shifting technological landscape, it is no longer considered viable for civil defence to offer a centralised and coordinated response in all circumstances.
‘Prepare Wellington’ is a research report written for WREMO (Wellington Regional Emergency Management Office). Human Centred Design (HCD) and experience prototyping were utilised to understand whether citizens within a geographically diverse area might use alternative networks of communication before a crisis so that they would be further encouraged to help each other during a crisis.

Authors	Bailey J; Sparks T
Name of conference	Australian Science Communicators National Conference 2017
Conference place	Adelaide, Australia
Conference start date	23 February 2017
Conference finish date	24 February 2017
Publication date	24 February 2017
Confidential	No
Quality Assured	No
PBRF Type	Conference Contribution - Other
Quality Assured	No
Cross Reference to Maori Panel	No
Cross Reference to Pacific Panel	No

Research Contributions (RC)

RC Type	Research prizes, fellowships, awards and appointments
Description of Research Contribution	<p>LAWA (NRO1) was awarded the SCANZ (Science Communicators Association of NZ) Excellence in Science Communication Award 2015. The award is judged on 'the quality of explanation of scientific concepts, how interest is captured, the relevance to and style of communication for the intended audience and the delivery against identified objectives...the project must have demonstrated that the chosen audience was engaged and gained a better understanding of an aspect of science and/or the role and importance of science in NZ or globally'. www.scanz.co.nz/award/</p> <p>Extraordinary Anywhere (NRO2) won the Upstart Press Award for Best Non-Illustrated Book at the Publishers Association of New Zealand Design Awards 2017. The judges speech noted: 'Intriguing and playful cover assuming the language of maps, but divulging coordinates of poetry or location details. The restricted colour palette works, and the change of pace and the change of place with the sections, the chapter intros and openers give relief or a cause to pause. The qualities of this book speak for themselves'. www.bookdesignawards.co.nz/</p>
Cross Reference to Maori Panel	No
Cross Reference to Pacific Panel	No

RC Type	Research prizes, fellowships, awards and appointments
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**Description of
Research Contribution**

Sole recipient of a competitive PhD scholarship (\$81,900 over three years plus fees) funded by Te Pūnaha Matatini (Centre of Research Excellence hosted by the University of Auckland) that will develop methods and approaches for transforming complex data about New Zealand’s environment, economy, and society into knowledge, tools, and insight for making better decisions. The PhD project, The Reflexive Scientist, is being supervised by Rhian Salmon, Rebecca Priestley and Sally Davenport, and is located in the Science in Society group at Victoria University of Wellington. The project proposes that new mechanisms are required for reflexive analysis of science communication activities by scientists. These mechanisms involve utilising design process tools for unpacking and articulating the communication objectives (and assumptions) of individual science communication practitioners and their organisations, as well as the political and cultural context in which they operate. As with much of my practice, I am proposing to use design as a tool to work in an interdisciplinary context with scientists and other disciplines to develop new insight and tools. The scholarship began in November 2017.

**Cross Reference to
Maori Panel**

No

**Cross Reference to
Pacific Panel**

No

RC Type

Research prizes, fellowships, awards and appointments

**Description of
Research Contribution**

Recipient of the following Designers Institute of New Zealand (DINZ) Best Awards:

As sole designer:

MakingGood.ac.nz: Bronze Best Award, Interactive Category, 2014 for MakingGood.ac.nz (ORO3)

Creative director/lead:

LAWA: finalist, Best Awards, Public Good Category, 2015 for LAWA (NRO1)

With Anna Brown:

Te Papa Board Books: Bronze Best Award, Colour Category, 2015 for Te Papa Board Books (ORO1)

Team awards:

Pipe Dreaming: Bronze Best Award, Spatial Category, 2017 for Pipe Dreaming (RC8)

Make/Use Exhibition: Bronze Best Award, Exhibition Category, 2016 for Make/Use Exhibition (NRO3)

Contributor (as part of the design team) to: Armed Offenders Squad Identity, New Zealand Police: Bronze Best Award, Ngā Aho Category, 2015 for Armed Offenders Squad Identity, New Zealand Police

Space Between online platform: Bronze Best Award, Public Good Category, 2016 for Space Between online platform (ORO5)

Open Lab visual identity: Finalist, Best Awards, Promo Category, 2016 for Open Lab visual identity

**Cross Reference to
Maori Panel**

No

**Cross Reference to
Pacific Panel**

No

RC Type	Research funding and support
Description of Research Contribution	<p>Awarded research funding of \$25,000 from WREMO (Wellington Regional Emergency Management Office) for WREMO crisis and community mapping tool feasibility research report and proposal (ORO6). This report followed a human-centred design process and was presented to WREMO and MCDEM (Ministry of Civil Defence and Emergency Management) staff in July 2016. Joint award with collaborator Tristram Sparks.</p> <p>The Make/Use exhibition (NRO3) was funded \$10,000 by Objectspace Gallery, Auckland. This comprised \$5000 for the exhibition, \$3500 for the publication and \$1500 for the public programme. The project also received a Massey University research grant for just over \$14,000 and in-kind support from Nancy's Stitch Studio, Autex, Metal Construction, Mainfreight, AUT, Auckland Girl's Grammar, and Lela Jacobs.</p>
Cross Reference to Maori Panel	No
Cross Reference to Pacific Panel	No

RC Type	Recognition of research outputs
Description of Research Contribution	<p>After seeing the Make/Use (NRO3) exhibition in Objectspace in August 2015, Claire Regnault, Senior Curator Creative Industries at Te Papa oversaw the purchasing of several parts for Te Papa's permanent collection. The elements were: four of the garments and flats; the film; the publication multi-part large format sheet journal produced weekly during the exhibition (ISBN 978-0-9941228-6-5 (vols. 1–5 set) – the publication was sewn together at the culmination as a broadsheet) and they also archived a copy of the website (which Google Analytics show has had 50,000 page views). I was the sole designer producing the publication (I also contributed to the editing), and I led design of the website (including site architecture, user experience and user interface design). Elements of the identity system I designed also permeate the video and the garments themselves.</p> <p>LAWA (Land Air Water Aotearoa) (NRO1) has been recognised as a "world first initiative in making a wide range of environmental data for a whole country available to the public in one place" (Dr Roger Young, Group Manager for freshwater sciences, Cawthron Institute). See https://www.lawa.org.nz/get-involved/news-and-stories/national-news/2017/september/world-rivers-day-heralds-boost-for-water-quality-data/.</p>
Cross Reference to Maori Panel	No
Cross Reference to Pacific Panel	No

RC Type	Recognition of research outputs
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Description of Research Contribution

Extraordinary Anywhere has been well received in both academic and wider communities for its content and design. Reviews, recognition and reprinting of Extraordinary Anywhere (NRO2) include:

Editor Cassandra Fusco in Takahē Magazine praised its 'simple and skilful design'. On stuff.co.nz writer Morgan Godfery described it as 'stylish, cultivated'. Poet and author Paula Green in NZ Poetry Shelf said 'I love the feel of the book in my hand, the shape and internal design'. The Booksellers NZ Review draws attention to 'an intriguing dust cover...which deserves to be studied as it adds a visual dimension to the publication.' Academic and author Professor Jane Stafford in The Listener described it as 'elegant'.

The book has been featured on the fontsinuse website (<https://fontsinuse.com/uses/13986/extraordinary-anywhere-essays-on-place-from-1>), and typeface designer Kris Sowersby described it as 'beautiful work' on social media. Other coverage included appearances in thespinoff, Pantograph Punch, North&South, an extensive review in the Scoop Review of Books; and featuring as 'Book of the Week' in the Dominion Post.

The book was reprinted in September 2017 and VUP Publisher Fergus Barrowman has confirmed an ebook version is planned.

Cross Reference to Maori Panel

No

Cross Reference to Pacific Panel

No

RC Type

Recognition of research outputs

Description of Research Contribution

Reviews, recognition and reprinting of Te Papa Board Book series (ORO1):

In June 2017, Te Papa Press newsletter stated: 'It's true that some books can never be allowed to go out of print and that's certainly the case with our award winning board books for children...which have just been reprinted.'

'ABC' listed as one of The New Zealand Listener's Top 50 Children's Books 2014: '...Three bilingual gems from Te Papa Press...'

'Colours' and 'ABC' listed on the Storylines Notable Books List 2015.

Review of the whole set: NZ Book Council Peer Review April 2015: '...bold thematic headings include Te Reo Māori...The use of white text on black, or colour on colour makes a welcome change. ... A colourful series of books to be shared by the young and old together, and a delightful showcase of New Zealand art.'

Review of 'Colours': New Zealand Herald, 8 February 2015: 'one of three bright and beautiful board books for kids...they are small works of art.'

Review of the whole set: WeLoveBooks (Booksellers NZ), 17 December 2014: '...beautifully presented and published.'

Cross Reference to Maori Panel

No

Cross Reference to Pacific Panel

No

RC Type	Facilitation, networking and collaboration
Description of Research Contribution	In 2016 I fostered links with Te Pūtahi – Christchurch centre for architecture and city-making and FESTA (the Festival of Transitional Architecture), and through them with Jos De Krieger of Superuse Studios in the Netherlands. De Krieger held a successful professional seminar at Massey University as a result of this relationship. I developed an exhibit for FESTA with colleague Nick Kapica, artist Julia Morison and a student studio. The resulting interactive kinetic sculpture, publication design and environmental graphic system utilised scavenged and borrowed materials and projection; it was informed by De Krieger’s material reuse practice. Formed from a group of suspended cardboard carpet cores, the installation functioned as pavilion, folly or sculpture, and at night became a three-dimensional cinematic screen for a choreographed sequence of projections derived from explorations reusing and re-thinking waste materials (process becoming content for the public exhibit). ‘Pipe Dreaming’ communicated ideas about reinvigorating old materials and questioned if bringing new life to the city in a state of flux was aspiration or folly. Highly successful from a pedagogical point of view, it has also gained widespread recognition, with the team winning a Global Design Award from the Society for Experiential Graphic Design (SEGD) in June 2017 (RC13), and a Designers Institute of NZ Best Award in October 2017 (RC3). The relationship is continuing, with a further collaboration in planned.
Cross Reference to Maori Panel	No
Cross Reference to Pacific Panel	No

RC Type	Facilitation, networking and collaboration
Description of Research Contribution	SEGD (the Society for Experiential Graphic Design) is an international multidisciplinary organisation of professionals who plan, design, and build experiences that connect people to place. I sit on SEG D’s Academic Task Force (since 2017); an invitation-only group that assesses academic contributions to the annual SEG D conference (most recently held in Miami) and seeks to facilitate connectedness and best practice across institutions. Since 2015, I have co-chaired with Nick Kapica New Zealand’s only SEG D chapter (one of 27 globally). We hold numerous research dissemination and networking events each year for the design community in Wellington. See www.segd.org
Cross Reference to Maori Panel	No
Cross Reference to Pacific Panel	No

RC Type	Facilitation, networking and collaboration
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**Description of
Research Contribution**

Off Grid 17: An Experiential Journey was a conference/experience that gave the design discipline an opportunity to consider the meaning of experience design (nomenclature with disparate meanings across specialisms) through the context of placemaking. It was conceived and organised by myself and Nick Kapica. Held in February 2017, participants came to Wellington via hub events in Brisbane, Sydney, Auckland and Christchurch (hosted by Dot Dash, Frost, DINZ and Te Pūtahi respectively). Over two days, site-specific research fora were held in venues including museums (Te Papa, Wellington Museum), galleries (City Gallery, Playstation), cafes, laneways and a planetarium (Space Place). The event was run under the SEGD umbrella (RC9). Internationally renowned speakers who presented included Uwe Brückner (Stuttgart), Morag Myerscough (London), Andrew Balster (Chicago) and Nils Wiberg (Reykjavík), supported by local speakers including staff from leading architecture practices Athfield Architects and Studio Pacific Architecture, street artists, practicing designers and people responsible for Wellington's unique vibe. John Lutz, SEGD president said: "Nick and Jo deserve accolades for pulling together this amazing content. It was wonderful to experience ... and connect with design professionals from around the globe". Feedback included "Off-Grid 17 is one of the best trips I've had for a design conference" (Stephen Minning, Director, BrandCulture).

**Cross Reference to
Maori Panel**

No

**Cross Reference to
Pacific Panel**

No

RC Type

Student factors

**Description of
Research Contribution**

In 2016 I developed (with Tristam Sparks, School of Design), Elspeth Tilley (School of English & Media Studies, Massey University), and David Johnston (Joint Centre for Disaster Research, Massey University) fully funded transdisciplinary Masters scholarship opportunities:

The project was developed for and with GNS Science (Graham Leonard), and focuses on a need they identified for greater understanding of and improvements to tsunami risk communication.

Candidates were recruited for a Master of Design and a Master of Communication tandem project, through which communication and design practice could mutually inform and reinforce each other.

The candidatures were offered with full fee funding and a stipend for each student secured from GNS Science. The candidates were recruited in a competitive process and commenced in February 2017. Elspeth Tilley supervises MComm candidate Adrienne Sheridan and Tristam Sparks and I supervise MDes candidate Harmony Repia (RC12). They are due to complete in February 2018, and further opportunities with GNS for funded postgraduate scholarships are in discussion for 2018-19.

**Cross Reference to
Maori Panel**

No

**Cross Reference to
Pacific Panel**

No

RC Type

Student factors

**Description of
Research Contribution**

Supervision of Master of Design candidates at Massey University:

Bridie MacInnes (co-supervision with Helen Mitchell). 'One for the Road'. A photography-based MDes exploring the craft brewing industry (completed November 2017).

Monish Patel (co-supervision with Mark Bradford). 'NZSO:Experiments'. An exploration of engaging millennials with the New Zealand Symphony Orchestra (completed October 2017).

Harmony Repia (co-supervision with Tristram Sparks). Working title: 'Communicating Tsunami Risk'. A project exploring how people understand and respond to the risk of tsunami utilising a Mātauranga Māori informed design process (completes February 2018). See RC11.

I have been invited to be a respondent for Massey University Master of Design candidates at critiques on a regular basis during this PBRF period.

**Cross Reference to
Maori Panel**

No

**Cross Reference to
Pacific Panel**

No

RC Type

Student factors

**Description of
Research Contribution**

Compiled entry submission for the SEGD (Society for Experiential Graphic Design) Global Design Awards 2016 for a BDes(Hons) student project: 'Makara Peak Wayshowing' (students: Oliver Ward, Josie Schultz, Rhianna Field, Stephanie Tidey, Rachel Jupp). The project was awarded a Merit, which was presented in Seattle in June 2016. I secured funding from SEGD for two students to attend and speak at the associated conference about their project.

Compiled entry submission for the SEGD Global Design Awards 2017 for a student project: 'Pipe Dreaming' (RC8) (students: Katie Deller, Nicole Gesmundo, Nicki Gordon, Tzu-Shiuan Huang, Sarah Joubert, Calvin Lai, Maggie Meiklejohn, Franziska Steinkohl, Rachael van Wieringen). This project was undertaken under the direction and mentorship of myself and Nick Kapica. The project was awarded a Merit, which was presented in Miami in June 2017. I secured from SEGD for the students to attend and speak at the associated conference.

I also collated and submitted an entry for Pipe Dreaming into the 2017 DINZ Best Awards, in which it was the recipient of a bronze award (RC3).

This extrapolation of outputs from a teaching and learning experience into a design discipline forum has been incredibly well received by the students (See <http://www.pechakuha.org/cities/christchurch/presentations/the-making-of-pipe-dreaming-aka-our-festa-adventure>); it has raised the profile and esteem of Massey University internationally and domestically (see RC8).

**Cross Reference to
Maori Panel**

No

**Cross Reference to
Pacific Panel**

No

RC Type

Other evidence of research contribution

**Description of
Research Contribution**

Colleague Tristram Sparks and I were approached in 2017 by Dr Sally Potter, GNS Science Hazard & Risk Management Researcher to collaborate on a proposal: 'Building a better felt report: Understanding human perceptions of levels of earthquake shaking'.

Following an earthquake, members of the public can immediately report their perception of the intensity of shaking at their location using the GeoNet FeltRAPID mobile application or website. The resulting composite social data stream provides a valuable and rapid estimation of severity. This project will build on recent research investigating the behavioural response of people to earthquake shaking and apply a human centred design approach to improve the FeltRAPID product's usability, experience and value as a data collection and science communication tool. Using earthquake simulators with a known Modified Mercalli Intensity (MMI) we will test the range of perceptions of shaking intensities to improve the reliability of this and other near real-time response tools. This builds on user experience research we completed for GNS Science on their GeoNet website.

We are part of an international interdisciplinary team including Tatiana Doded (GNS), Ben Payne (GeoNet), Sara McBride (US Geological Survey); Mary-Anne Thompson (University of Auckland), Dean Peterson (Te Papa) and SR Uma (GNS). The project advanced to the second round of the EQC Biennial Contestable Grants Programme. Project will have a two-year duration once funded.

**Cross Reference to
Maori Panel**

No

**Cross Reference to
Pacific Panel**

No

RC Type

Outreach and engagement

**Description of
Research Contribution**

I developed an illustrative infographic system for Dr Mike Joy (renowned freshwater ecologist and science communicator and recipient of awards from the Royal Society of New Zealand; Ecological Society of New Zealand; Forest & Bird and most recently the inaugural Critic and Conscience Award from Universities New Zealand) to connect compelling water quality statistics with the peer reviewed papers that underpin them through detailed referencing. This builds on principles I established in my MDes and subsequent research, and through LAWA (NRO1), which considered access to primary data and rigorous scientific analysis as a key component of credibility. Dr Joy used a poster version of the illustrations on his tour of schools with investigative journalist and best-selling author Nicky Hager in 2016-17 to support and extend their talks on becoming passionate and engaged citizens informed by valid research.

**Cross Reference to
Maori Panel**

No

**Cross Reference to
Pacific Panel**

No

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