





Remaking Collection

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REMAKING COLLECTION

Unexpected Connections: Reimagining the Nineteenth Century through Generative Art

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Unexpected Connections: Reimagining the Nineteenth Century through Generative Art is an interactive, generative artwork that offers new modes of archival exploration, discovery and expression using digitised cultural heritage objects. It combines the allure of serendipity with the storytelling potential of palimpsests in order to probe what biography might mean in the digital age. Based upon Mitchell Whitelaw's interactive work Succession: digital fossils for an industrial age, Unexpected Connections was developed as a tool to explore the inter-crossings of people, places, communication forms, technologies and practices that shaped nineteenthcentury knowledge networks. The focal point is the nineteenth-century polymath William Colenso (1811-1899) and his contemporaries. The goal of the project is to simulate an archaeology of knowledge, evoking the geology if not palaeontology of the archival research enterprise, affording opportunities to turn chance encounters into unexpected connections and to rethink digital biography as a complex system of meshworks, lifegrids and life geographies. The article opens with a brief overview of the exhibition context which framed the development of this particular online platform and discusses the various critical, technical and artistic affordances, challenges and futures. It closes with a meditation on the role of such interventions in rethinking collections and their use.

Unexpected Connections: Reimagining the Nineteenth Century through Generative Art (Shep & Owen, 2016) is an interactive, generative artwork that offers new modes of archival exploration, discovery and expression using digitised cultural heritage objects. It combines the allure of serendipity with the storytelling potential of palimpsests in order to probe what biography might mean in the digital age. This article opens with a brief overview of the exhibition context which framed the development of this particular online platform and discusses the various critical, technical and artistic affordances, futures and challenges. It closes with a meditation on the role of such interventions in rethinking collections and their use.

The impetus for *Unexpected Connections* was an exhibition in 2016–2017 at the Turnbull Gallery, National Library of New Zealand, Wellington (see **Figure 1**). It was conceptualised and curated by Sydney J. Shep, Rhys Owen and Charlotte Thompson Darling as part of their Royal Society of New Zealand Marsden Fund project entitled 'Personal Geographies and Global Networks: William Colenso and the Victorian Republic of Letters'. It was co-designed with and installed by Wellington-based photographer, filmmaker and interarts creative Neil Pardington, assisted by Turnbull's conservation specialist Brendan O'Brien and curator of manuscripts



Figure 1: *Unexpected Connections: Colenso and His Contemporaries.* Exhibition view, Turnbull Gallery, National Library of New Zealand, Wellington, 14 November 2016–9 March 2017.

Shannon Wellington. The aim of the exhibition was to fashion both a physical and virtual tool to explore the inter-crossings of people, places, communication forms, technologies and practices that shaped nineteenth-century knowledge networks. The focal point was our research subject, the nineteenth-century polymath William Colenso (1811–1899) and his contemporaries.

We staged the exhibition experience using the popular Victorian aesthetic and knowledge-building platform of the Wunderkammer, or 'cabinet of curiosities'. This choice of design reflected Colenso's own collecting practices, his contribution to building the Hawkes Bay Philosophical Institute's exhibition rooms and the place of nineteenth-century industrial exhibitions in attesting to 'the circulation of ideas and practices and to the power of the visual in carrying knowledge across borders' (Macnab et al, 2013: 769). Moreover, this aesthetic put storytelling at the heart of a user-generated interpretive experience. The gallery itself was turned into a cabinet of curiosities with objects displayed in period furniture (see **Figure 2**). At the centre of the exhibition space was a Persian carpet, two vintage pin-tucked leather wing chairs and a revolving bookcase with a selection of nineteenth-century books and periodicals as well as two iPads preloaded with the *Unexpected Connections* artwork.



Figure 2: *Unexpected Connections: Colenso and His Contemporaries.* Exhibition view, Turnbull Gallery, National Library of New Zealand, Wellington, 14 November 2016–9 March 2017.

Sixty objects were selected, which ranged from taxidermy and herbarium specimens to Colenso's brass microscope and printer's composing stick, from microscopic specimen slides to his estranged wife's medicine case and from paintings and photographs to manuscripts, printed ephemera and books. Items were clustered into themes (the Republic of Letters; Moas, Mates & Men; Victorian Science Communities; Colenso's Other Women; Female Polymaths) and framed by several open-ended and intentionally provocative narratives. Comparable to historical curiosity cabinets, we did not label individual objects save for a few discreet numbers linked to the adjacent storyboard panels and the exhibition catalogue. We also relied upon variable lighting and different display heights to engage visitors of all ages in close observation and to stimulate curiosity. By reframing the life and work of Colenso in this way, we aimed to combine the unexpected element of serendipity with the suggestive and imaginative power of palimpsests.

As with many Victorians, Colenso (see **Figure 3**) was a man of prodigious talents: printer of te Tiriti o Waitangi (The Treaty of Waitangi, New Zealand's



Figure 3: William Colenso, carte de visite, ca.1880. Maker unknown. Te Papa (O.012380) ['No Known Copyright Restrictions']. Available at: http://collections.tepapa.govt.nz/Object/398780/download.

founding document from 1840) and witness to its signing, classifier of native botanical species, compiler of a groundbreaking Māori lexicon, zealous evangelist and educationalist, indefatigable explorer and remarkable politician. His local and overseas letter correspondence network of over eighty interlocutors included significant figures in the international scientific community such as William and Joseph Hooker (father and son) of Kew Gardens, Charles Darwin, Allan Cunningham, James Hector, Walter Mantell and Julius von Haast; it also featured local identities such as teacher and suffragist Mrs Emily Hill of Napier, hotelier Hans Mortensen of Norsewood, Captain William Colenso Drummond of Dannevirke, Hawke's Bay Māori missionary and leader Renata Tamaki-Hikurangi Kawepo and Mrs Bibby, Waipawa shopkeeper. Nor was Colenso above controversy: he spoke out during the signing of the Treaty of Waitangi, New Zealand's instrument of colonial oppression, highlighting misunderstandings amongst the indigenous community about its scope and intent; he fathered a child with his Māori housekeeper and was defrocked as a result; and he insisted on reclassifying botanical specimens according to their site-specific characteristics, often substituting the original discoverer's name with his own. Although Colenso was one of the most accomplished polymaths of Victorian New Zealand, his contributions to Māori, Pakeha and imperial history have been under-estimated, dismissed or virtually forgotten.

Polymaths, like Colenso, lived rich, interconnected, transnational lives that populate the pockets and corners of our nineteenth-century re-imaginings. Yet they remain challenging figures for biographers and historians alike. Excavating and reassembling archival traces into a multi-dimensional narrative using the traditional linear, developmental model of biography requires great skill. Colenso's standard biography is composed of discrete chapters, each devoted to one aspect of his career (Bagnall & Petersen, 1948). It makes no claims to be comprehensive or synthetic, but, rather, reflects a conventional, chronological approach to biographical writing. As the product of a public call to copy archives in private hands and make them available to the nation, it also reflects the state of the archive at the time of its writing. More recently, New Zealand film-maker and writer Peter Wells (2011) published *The Hungry Heart: Journeys with William Colenso*, a work

composed of 'biographical entertainments' that tells us more about the author than his subject. Two international conferences and an edited biography (Bagnall & Petersen, 2012) later, Colenso remains a controversial figure and a formidable biographical subject.

Given this backdrop, our Marsden project challenge was to computationally model nineteenth-century polymathic networks and think of biography as a complex concatenation of multi-dimensional and multimodal 'meshworks' (Ingold, 2011), 'lifecourses' (*Founders and Survivors*, 2015) or 'life-grids' (Hitchcock, 2014). We deployed a model originally developed in 2012 by Shep (2014: 66) entitled 'Modelling Situated Knowledges in Book History' (see **Figure 4**).

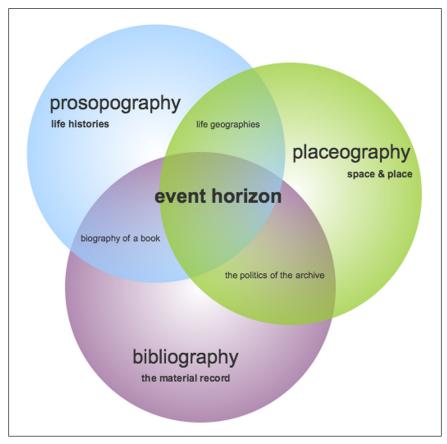


Figure 4: Modelling Situated Knowledges in Book History (Shep, 2014: 66).

The premise of the model is that knowledge is the product of multi-dimensional transactions between people (prosopography), places (placeography) and material records or things (bibliography) in the nexus of event horizons. This model is a research framework, a research ontology and a research methodology. People acquire information either directly or indirectly in particular places, at particular times and through particular channels. The exchange of information can be modelled as a timestamped event shaped by the specific site of knowledge acquisition and mediated by the specific communication form, whether a letter, a lecture, a conversation, a published pamphlet or a book. The circulation of such 'situated knowledge' is both mobile and mutable, polychronic and multi-temporal; it changes over time and is moulded by socially, culturally, economically and politically-embedded and embodied practices. Like a rhizomorphic network or Ingold's 'meshwork', it is also a fluid field of production characterised by cycles of connectivity, multiplicity and rupture. Such 'knowledge in transit' (Secord, 2004) requires an understanding of both location and locution; that is, space and language re-conceptualised as the 'geosemiotics' (Scollon & Scollon, 2003) of knowledge transfer.

We also proposed that digital approaches and computational tools could offer fresh insights into the worlds of Colenso and his contemporaries and signal an innovative way forward. As Elizabeth Podnieks (2009: 2) remarked:

The two greatest changes notable in biography arise both from technologies that allow for radical new ways of producing, disseminating, and theorizing the genre and from an expansion of the definition of what constitutes biographical expression.

Digital biographies are now commonplace (Arthur, 2010; Topalov & Voitech, n.d.), and are primarily structured as a set of links which serve up the equivalent of single subject dictionary or Wikipedia-like entry or provide contextual background to a critical edition of a writer's works. Could we create a digital experience that captured both the research process and exposed the constructedness of narrative in digital space? Historical geographer David N. Livingstone (2003: 183) has

suggested that 'greater sensitivity to the spaces of a life could open up new and revealing ways of taking the measure of a life'. Could we also think anew about Philip Ethington's (2007: 465, italics original) call to recognise that 'the past cannot exist in time; only in space. All human action *takes* and *makes* place. The past is a set of places made by human action. History is a map of those places" In a world of linked open data, social network analysis and algorithmic thinking, what would a digital 'map' of a life look like and how would users interact with and experience it? Could we look through and beyond the polymathic figure of Colenso to the nodes and links that constitute the networked 'life geographies' of those communities of practice and spaces of intellectual engagement with which he was in direct or indirect contact?

Unexpected Connections composes multi-layered images randomly drawn from a curated collection of some three hundred and fifty digitised objects related to Colenso and his contemporaries (see **Figure 5**). These objects are gathered together into DigitalNZ



Figure 5: Exhibition installation of *Unexpected Connections: Reimagining the Nine- teenth Century through Generative Art.*

sets (DigitalNZ, n.d.) and organised by format: maps, photographs, manuscripts, artworks, newspapers, other printed material. *Unexpected Connections* uses a modified *Succession* (Whitelaw, 2014) randomised search algorithm to draw down digital objects and reassemble them into a suite of five blended overlays randomly resized, cropped and repeated. Each object can be investigated further through metadata hyperlinks to the original collecting institution; the multi-layered images can also be saved. The goal was to simulate an archaeology of knowledge, evoking the geology if not palaeontology of the archival research enterprise, affording opportunities to turn chance encounters into unexpected connections. The digital installation also complemented the physical exhibition by suggesting, if not exposing, how serendipitous links between objects can be assembled to create beautiful artworks and evocative palimpsests that have the potential to reveal new connections and tell new stories.

Unexpected Connections is based upon Australian academic, printmaker and creative coder Mitchell Whitelaw's interactive work *Succession: digital fossils for an industrial age.* As Whitelaw (2014, n.p.) notes:

Succession generates digital fossils from images documenting the history of Newcastle-upon-Tyne. Each one is unique, generated by selecting five items at random from a set of about two thousand ... The term succession is borrowed from ecology, where it refers to the way living systems create the conditions for their own future changes. The question for industrial capitalism is, what next? This work reveals layers of our shared heritage, rearranging and compressing them to seek out new meanings and latent stories. Our industrial culture was founded on coal: a fossil fuel, a compressed residue made from the dead bodies of ancient plants and animals. Succession in turn produces visual fossils: compressed energy to fuel reflection on the past, and speculation on the future.

Our digital installation (see **Figure 6**), localised and reinterpreted by Marsden technical lead Rhys Owen, stretches Whitelaw's original concept (Whitelaw, 2018) in several, unique ways: critically, technically and artistically.



Figure 6: Palimpsest from *Unexpected Connections: Reimagining the Nineteenth Century through Generative Art.*

Critically, it reframes the generative experience as one which combines serendipity and palimpsests in the service of digital biography and user-initiated locative storytelling. It may have precursors in the theoretical fictions and montages of Aby Warburg's *Mnemosyne Atlas* or the restless collages of Walter Benjamin's unfinished *Arcades* project, but it shifts temporal chronology into spatial, episodic engagements and thus interrogates the concept of deep time in the age of the anthropocene. It also instantiates Manuel DeLanda's idea of non-linear history (1997) by foregrounding his reworking of Deleuze and Guattari's assemblage theory, in particular, his unpicking of the 'diagram of an assemblage' (2016: 5, italics original) in the context of genetically-driven and historically-informed speculative realism:

An ensemble in which components have been correctly matched together possesses properties that its components do not have. It also has its own tendencies and capacities. The latter are real but not necessarily actual if they are not currently manifested or exercised. The term for something that is real but not actual is *virtual*. An assemblage's diagram captures

the virtuality, the *structure of the possibility space* associated with an assemblage's dispositions.

Technically, in our next development phase, saved images will be able to be user-curated, shared and dynamically re-generated through persistent identifiers whose metadata replay the composition engine and replicate each image. Stories both unsolicited and commissioned arising from the palimpsests will be published online to generate and sustain a community of reflective practice. Furthermore, we are experimenting with incorporating a different kind of serendipity tool to select the digital images that generated the *Unexpected Connections* palimpsests. Conceptualised by Shep and developed by Australian digital historian Tim Sherratt in 2012, *Magic Squares* (see **Figure 7**) is based on an ancient Chinese predictive tradition that was popularised by printers like Benjamin Franklin and, in New Zealand, Robert Coupland Harding. It also forms the basis of combinatorial number games such as sudoku with its permutations structured by a sequence of delimited mathematical variables.



Figure 7: *Magic Squares.* (Sherratt & Shep, 2012). Available at: http://wraggelabs.com/shed/magicsquares/.

Our five-by-five square grid is populated by items related to Colenso, drawn down dynamically from DigitalNZ and prompted by the number of each grid square; the outer rows, columns and inner diagonals add up to the so-called 'magic constant'. This grid interface echoes Hitchcock's notion of 'life-grids' and provides a method to script a generative biographical narrative based on serendipity. It also foregrounds Ingold's idea of a 'mesh-work' insofar as the sensemaking process of storytelling inheres in the spaces between the objects rather than solely the objects themselves. Furthermore, as an agent of serendipity, *Magic Squares* may furnish a way of dreaming ourselves into the so-called 'lost years' of Colenso, between his expulsion from the church in 1852 and his reincarnation as a political animal in 1856. Like Harry Ricketts' (2010) compelling fusion of creative non-fiction into his biography of the First World War poets, what is absent in the historical record or merely shadowed by variable evidential traces is a springboard to new forms of biographical expression that explode anxieties about the modes and ethics of narrativity (Strawson 2004, 2017).

Artistically, *Unexpected Connections* is also a potent canvas for exploring what we term at Wai-te-ata Press the 'digital handmade' (Shep & Browning, 2018) (see **Figure 8**).



Figure 8: Digital Handmade: 3-D printed logotype block and analogue letterpress prints.

This concept of the 'digital handmade' was devised to embrace hybridity and a technological continuum, speaking back to devotees of technological disruption and evolutionary progressivism. It uses the affordances of new technology, specifically 3-D printing, plus serendipitous encounters in the analogue letterpress print shop, to reimagine if not reinvent nineteenth-century printing history. As a letterpress printer, Shep will generate 3-D printed plates of random individual digital images in the Unexpected corpus and letterpress print them. The unexpected quirks and foibles resulting from the 3-D printing process expose the fingerprint or DNA of the machine and cannot be controlled. By reverse engineering a digital generative artwork through analogue printing, we aim to create new cultural heritage objects that further complicate the boundaries between physical and digital materiality (Shep, 2016) and interrogate the metaphysics of the technology continuum. Moreover, these printing plates with their flats and grooves can, like a vinyl disk, be machine-read by an optical phonograph using a repertoire of pre-determined soundbytes that could, in effect, release the 'sound' of Colenso's voice: particularly apt given his idiosyncratic manuscript hand as well as his raging newspaper editorials. Such an experiment in data sonification opens up exciting possibilities for analysing texts through the ear rather than solely through the eye.

During the development journey of *Unexpected Connections*, challenges in constructing and maintaining the digital artwork were rife. DigitalNZ harvests metadata from over two hundred NZ-based collecting institutions, serves up a thumbnail image and links it back to the original item. While re-use is encouraged, and indeed successful mash-up competitions have been run in the past, each collection item has its own licensing agreement. As a result, issues of copyright and creative re-use seriously limited the number of digital objects that could be included in our corpus. Some web-scraping to isolate individual images was required in several instances where complex page images were served up by the DigitalNZ API. In the application build, this API was used offline due to a licensing agreement which disallowed distribution of the key with the application to both harvest items into the sets and to configure the application.

Using a format-based structure for the DigitalNZ sets was a useful curatorial and organizational tool, but it pre-scripted some of the operations and might be seen to limit the generative capacity of the machine and its code. As it turned out, however, this method of quarantining by format ensured that the digitised historical newspaper collection Papers Past – by far the largest asset in the DigitalNZ corpora and forming the bulk of our corpus – did not hijack the wealth of other images in our digital artwork. When DigitalNZ re-architected their resource URLs, a delay in reharvesting Papers Past meant links to this part of our corpus were broken. By disabling that specific call-out code, the artwork could still function and, as we discovered, do so remarkably well (see Figure 9). In the absence of the power of the bi-tonal printed newspaper word which frequently dominated the foreground and flattened the perceptual richness and perspectival depth of the palimpsests, composites became increasingly evocative and increased the viewer's dwell time. Text was still part of the perceptual field appearing in manuscripts, maps, printed captions and ephemera, but the insistence on typography initiating the decoding experience was modulated.

Moreover, this unintended recalibration meant the process of interrogating the spatial relationship between foreground and background made visible the epistemic nature of the project and emphasised the storytelling objective: how do we view the world and how much do you need to know to make sense of each multilayered canvas? This, in turn, led to further speculation about the role of randomness in a tuned system, the location of digital assets in our model of situated knowledges and



Figure 9: Palimpsests from *Unexpected Connections*: [left] with *Papers Past* newspaper content; [right] without *Papers Past*.

the relationship between elegant code and a beautiful aesthetic experience. As one of our beta testers remarked (project email correspondence, 17 June 2017):

I'm fascinated not only by what it does (and how), but also the effects that it has on users (well, this particular viewer in general). The layers and the masking effect generate a curiosity. The juxtapositions often lead to something akin to metaphorical astonishment, inviting me to not only understand the component pieces, to reverse engineer the ingredients, but to also pattern-seek by imagining causal connections between them, to resolve these gestalt images into something connectively meaningful.

Several fascinating conundrums also emerged during the course of the project's conceptualisation and development. The architecture and experience of Unexpected Connections straddles the paradoxical combination of randomness framed by a highly structured system. We aimed to foreground the role of serendipity as an integral part of the researcher's toolkit. Stumbling across hitherto unknown sources, making unexpected connections and telling new stories with old objects is an experience that has been characterised as 'the allure of the archive' and indeed, exemplifies the experience of Wunderkammern. In her highly evocative work, Le Goût de l'archive (The Allure of the Archives), French pre-Revolutionary historian Arlette Farge (2013: 30) suggests that 'the reality of the archive lies not only in the clues it contains, but also in the sequences of different representations of reality'. And yet, in digital space, serendipity provides the illusion of randomness but the rules of intentionality are always already built into algorithmic thinking and scripting. As Deb Verhoeven (2016: 18) has eloquently observed, 'serendipity lures and enchants all those within earshot with the promise that somewhere beneath the discontinuities of categorization run underground streams of possibility', and asks, 'what might be the radical potential of serendipity for digital research environments and archives?'. Advocating for a renewed awareness of the social life of information, she calls for serendipitous, solace-less acts of linking that redistribute power through participatory co-creation, illuminate our own defining partiality and fallibility and make possible world-making and remaking in the archive.

Can new narratives prompted by *Unexpected Connections'* digital palimpsests (see **Figure 10**) offer 'different representations of reality'? Farge (2013: 71) likens the historian's approach to unpick the infinitude of these realities to that of a prowler:

Searching for what is buried away in the archives, looking for the trail of a person or event, while remaining attentive to that which has fled, which has gone missing, which is noticeable by its absence. Both presence and absence from the archive are signs we must interpret in order to understand how they fit into the larger landscape.

Such a balancing act of presence and absence is the fulcrum of storytelling. As museum historian Maria Zytaruk (2011) notes, collectors transformed the cabinet from a storehouse of static objects to a dynamic visual tool for creating, organising, recording and preserving knowledge. They also compiled catalogues, talked about objects in their letter correspondence, shared their cabinets with like-minded collectors and deeded their collections to posterity. These dynamic spaces of knowledge-making and knowledge brokering – what David N. Livingstone (2005)



Figure 10: Palimpsests from Unexpected Connections.

calls the geographies of text, talk and testimony – emphasise how objects both embed and transmit meaning across time and space; in other words, have a focus on 'how the object is constituted as it passes historically through multiple sites of discursive and economic production' (Harris, 2000: 112). However, in his short essay 'Excavation and Memory', Walter Benjamin (1932/2005: 576) posits that it is not the object itself or the inventory of the archaeologist's findings that is important, but rather, the act of marking the precise location where it is found. Thus, far from permanently fixing 'things-in-motion' (Appadurai, 1986: 9), the curiosity cabinet enables the word 'history' to be, as Benjamin (1985: 177) has further observed, 'written in the characters of transience'. Like the spacing material that holds together hand-composed type yet is invisible when printed, or letterforms that are defined by the spaces around them, absence becomes presence in the grammar of storytelling. *Unexpected Connections'* situated narratives are less about the digital objects themselves and more about the links between objects, those in-between spaces and places that expose the logic of the constructedness of the past, its archive and its users.

Since our digital artwork was launched and as the randomisation engine has evolved, we have noticed periodic clustering of functions and forms. We conjecture that the machine and its code are in a process of continuous machine learning and can thus be ascribed with some measure of latent artificial intelligence. Indeed, as John McCormack et al (2014: 135) suggest:

In essence, all generative art focuses on the process by which an artwork is made, and this process is required to have a degree of autonomy and independence from the artist who defines it. The degree of autonomy and independence assigned to the computer varies significantly—from works that seek to minimize or exclude the creative 'signature' of the human designer to those in which the computer's role is more passive and the human artist has primary creative responsibility and autonomy.

Inspired by the Oulipo movement of the 1960s, Bill Seaman coined the term 'recombinant poetics' in 1995 in order to define a particular approach to emergent meaning that is used in generative virtual environments. Based upon a

set of mathematical constraints to liberate the imagination and promote playful interactions, 'recombinant poetics' foregrounds the relationship between man and machine and functions as 'a generative system that is an "authored space" characterized by a "resonant unfixity" (Seaman, 2001; Seaman, 2014).

Farge talks about the generative nature of these spaces of resonant unfixity. While she calls these spaces 'words', we could substitute 'word' with 'archival object' or, indeed, a 'generative artwork' like *Unexpected Connections*:

Words are windows; they will let you catch a glimpse of one or several contexts. But words can also be tangled and contradictory. They can articulate inconsistences whose meaning is far from clear. Just when you think you have finally discovered the framework underlying the way events unfolded and individuals acted, opaqueness and contradiction begin to creep in. Incongruous spaces emerge with no apparent connection to the landscape that seemed to be taking shape only a few documents earlier. These discordant spaces and gaps harbor events as well, and the hesitant and unfamiliar words used to describe them create a new object. These words reveal existences or stories that are irreducible to any typology or attempt at synthesis, and do not neatly fit into any easily described historical context ... History is not a balanced narrative of results of opposing moves. It is a way of taking in hand and grasping the harshness of reality, which we can glimpse through the collision of conflicting logics. Farge (2013: 85–6).

A significant objective of the Marsden project was to redefine digital biography as a complex system of spatially-located and networked processes and products that captures the multi-variate nature of interconnected lives and the circulation of knowledge that constitutes the record of those lives. It afforded a dynamic testing ground for new digital humanities-inflected approaches to collaborative 'digital biography', enabling a move from the synthetic imperative of traditional biography to socially- and culturally-mediated acts of constructivism. If *Unexpected Connections* enables us to glimpse Farge's 'conflicting logics' through serendipity and creative

encounters with cultural data, it also enfolds those logics into elegant palimpsests ripe for new modes of storytelling and re-imaginings of the biographical enterprise. Ultimately, the figure of 'William Colenso' is situated at the intersection between different forms of storytelling and different kinds of storytellers, including the historian, the biographer, the archivist and even, perhaps, the flaneur.

Competing Interests

The authors have no competing interests to declare.

References

- Appadurai, A 1986 Introduction: Commodities and the Politics of Value. In:
 The Social Life of Things: Commodities in Cultural Perspective, pp. 3–63.
 Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511819582.003
- **Arthur, P L** 2010 Digital Biography: Capturing Lives Online. *a/b: Auto/Biography Studies*, 24(1): 74–92. DOI: https://doi.org/10.1080/08989575.2009.10846789
- **Bagnall, A G** and **Petersen, G S** 1948 *William Colenso; printer, missionary, botanist, explorer, politician; his life and journeys.* Wellington: Government Printer.
- **Bagnall, A G** and **Petersen, G S** 2012 *William Colenso: His Life and Journeys*, St. George, I (Ed.). Dunedin: Otago University Press.
- **Benjamin, W** 1932/2005 Excavation and Memory. In: Bullock, M P, Jennings, M W, Eiland, H and Smith, G (Eds.), *Selected Writings, Vol. 2, part 2 (1931–1934), 'Ibizan Sequence'*, pp. 576. Cambridge, MA: Belknap Press.
- **Benjamin, W** 1985 *The Origin of German Tragic Drama.* trans. Osborne, J. London: Verso.
- **DeLanda, M** 1997 *A Thousand Years of Nonlinear History*. New York: Zone Books.
- DeLanda, M 2016 Assemblage Theory. Edinburgh: Edinburgh University Press.
- **Digital New Zealand** n.d. https://digitalnz.org/ [Last accessed 28 October 2018].
- **Ethington, P J** 2007 Placing the Past: 'Groundwork' for a Spatial Theory of History. *Rethinking History*, 11(4): 465–93. DOI: https://doi.org/10.1080/13642520701645487

- **Farge, A** 2013 *The Allure of the Archives* (trans.) Scott-Railton, T. New Haven & London: Yale University Press.
- Founders and Survivors: Australian Life Courses in Historical Context, 1803–1920 2015 http://foundersandsurvivors.org/ [Last accessed 28 October 2018].
- **Harris, J G** 2000 The New New Historicism's Wunderkammer of Objects. *European Journal of English Studies*, 4(2): 111–123. DOI: https://doi.org/10.1076/1382-5577(200008)4:2;1-Q;FT111
- Hitchcock, T 2014 *The Digital Panopticon: The Global Impact of London Punishments,* 1780–1925. https://blog.digitalpanopticon.org/visualising-life-grids-and-narrating-the-lives-of-convicts/ [Last accessed 28 October 2018].
- **Ingold, T** 2011 The Meshwork. In: *Being Alive*, pp. 63–88. New York: Routledge. DOI: https://doi.org/10.4324/9780203818336
- **Livingstone, D N** 2003 *Putting Science in its Place. Geographies of Scientific Knowledge.* Chicago: Chicago University Press. DOI: https://doi.org/10.7208/chicago/9780226487243.001.0001
- **Livingstone, D N** 2005 Text, Talk and Testimony: Geographical Reflections on Scientific Habits. An Afterword. *British Journal for the History of Science*, 38(136): 93–100. DOI: https://doi.org/10.1017/S000708740400648X
- **Macnab, N, Grosvenor, I** and **Myers, K** 2013 Moving frontiers of empire: production, travel and transformation through technologies of display. *Paedagogica Historica*, 49(6): 769–95. DOI: https://doi.org/10.1080/00309230.2013.846927
- McCormack, J, Bown, O, Dorin, A, McCabe, J, Monro, G and Whitelaw, M 2014 'Ten Questions concerning Generative Computer Art. *Leonardo*, 47(2): 135–141. DOI: https://doi.org/10.1162/LEON_a_00533
- **Podnieks, E** 2009 Introduction: 'New Biography' for a New Millennium. *a/b: Auto/Biography Studies*, 24(1): 1–14. DOI: https://doi.org/10.1080/08989575.2009. 10846785
- **Ricketts, H** 2010 *Strange Meetings: The Lives of the Poets of the Great War.* London: Chatto and Windus.
- **Scollon, R** and **Scollon, S W** 2003 *Discourses in Place. Language in the Material World.* London: Routledge. DOI: https://doi.org/10.4324/9780203422724

- **Seaman, B** 2001 Oulipo |vs| Recombinant Poetics. *Leonardo*, 34(5): 423–430. DOI: https://doi.org/10.1162/002409401753521548
- **Seaman, B** 2014 Generative Works: From Recombinant Poetics to Recombinant Informatics. *International Conference on Cyberworlds*. DOI: https://doi.org/10.1109/CW.2014.10
- **Secord, J A** 2004 'Knowledge in Transit. *Isis*, 95(4): 654–672. DOI: https://doi. org/10.1086/430657
- **Shep, S J** 2014 Books in Global Perspectives. In: Howsam, L (Ed.), *The Cambridge Companion to the History of the Book*, pp. 53–70. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CCO9781139152242.005
- **Shep, S J** 2016 Digital Materiality. In: Schreibman, S, et al. (Eds.), *A New Companion to Digital Humanities*, pp. 322–330. New York: John Wiley & Sons. DOI: https://doi.org/10.1002/9781118680605.ch22
- **Shep, S J** and **Browning, L** 2018 The Digital Handmade. Available at: https://www.victoria.ac.nz/news/victorious/2017/autumn-2017/handmade [Last accessed 28 October 2018].
- **Shep, S J** and **Owen, R** 2016 *Unexpected Connections. Reimagining the Nineteenth Century through Generative Art.* Available at: https://wai-te-ata-press.gitlab.io/unexpected/#/ [Last accessed 28 October 2018].
- **Sherratt, T** and **Shep, S J** 2012 *Magic Squares*. Available at: http://wraggelabs.com/shed/magicsquares/ [Last accessed 28 October 2018].
- **Strawson, G** 2004 Against Narrativity. *Ratio* (new series), XVII. 4 December. Available at: http://lchc.ucsd.edu/mca/Paper/against_narrativity.pdf [Last accessed 28 October 2018]. DOI: https://doi.org/10.1111/j.1467-9329.2004.00264.x
- **Strawson, G** 2017 *The Subject of Experience*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780198777885.001.0001
- **Topalov, O** and **Vojtech, V** n.d. Frederic Nietzsche: a digital biography. http://nietzsche.aspone.cz/ [Last accessed 28 October 2018].
- **Verhoeven, D** 2016 As Luck Would Have it: Serendipity and Solace in Digital Research Infrastructure. *Feminist Media Histories*, 2(1): 7–28. DOI: https://doi.org/10.1525/fmh.2016.2.1.7

- **Wells, P** 2011 *The Hungry Heart. Journeys with William Colenso.* Auckland: Vintage.
- **Whitelaw, M** 2014 *Succession.* Available at: http://mtchl.net/about-succession/ [Last accessed 28 October 2018].
- **Whitelaw, M** 2018 'Mashups and Matters of Concern. Generative Approaches to Digital Collections'. DOI: https://doi.org/10.16995/olh.291
- **Zytaruk, M** 2011 Cabinets of Curiosities and the Organisation of Knowledge. *University of Toronto Quarterly*, 80(1): 1–23. DOI: https://doi.org/10.3138/utq.80.1.001

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