

TRANSMISSION + TRANSMEDIA

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Attestation of Authorship

I hearby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma of a university or other institution of higher learning.

This exegesis uses the Chicago (Turabian) citation style, 7th edition, as prescribed by the Digital Design programme, School of Art and Design, AUT University.

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He mihi mahana ano ki nga tangata katoa hei awhina ki a puta noa i te wa ki aku mahi: ko nga kaumatua, librarians, publishers, ko toku whanau whanui, ratou ko toku matua, ko toku whaea, ko toku tuakana, ko toku teina. Anei te whakatauki:

Ko te manu e kai ana i te miro, nōna te ngahere. Ko te manu e kai ana i te mātauranga, nōna te ao.

Nga mihi aroha ki toku hoa rangatira, ko Elwyn (Ned), my rock of ages, raua ko toku tamahine, ko Rangiatea, my very own nature sprite (...which I guess makes me a wrinkly old tuatara).

Abstract

Transmedia can be described as storytelling across multiple platforms of media delivery. This transmedia project, *Otea*, uses three digital media – an animated motion comic, an e-comic, and an interactive game - to tell a single story.

The objective is the creation of a transmedia resource that allows the transmission of aspects of traditional Maori knowledge, culture and language, via an original fictional narrative aimed primarily at children. Henry Jenkins calls transmedia storytelling "the art of world making," and my goal is to build a rich and engaging story-world where the aspects of Maoritanga⁴ used are an accessible and natural part of the storytelling landscape.

By embedding these cultural concepts inside a story that communicates my own enthusiasm by way of entertainment, I aim to initiate positive interest in these topics. Given the transmission of Maori concepts at the heart of the project, specific Maori cultural lenses have been applied to interpret the modern media employed.

Through practical investigation, this project explores how a transmedia approach might be applied to communicate Maori cultural concepts, in order to develop a potentially useful methodology for other practitioners to employ and build upon.

³ Henry Jenkins, introduction to *Convergence Culture: Where Old and New Media Collide* (New York: New York University Press, 2006), 21.

⁴ Maori culture, Maori perspective. P.M.Ryan, *The Reed Dictionary of Modern Maori* (Auckland: Reed Publishing, 1997), 147.

This exegesis outlines the creative process behind *Otea*, a transmedia storytelling project delivered via a motion comic, an e-comic and an interactive game. The aim in using transmedia is the development of a Maori cultural resource that artfully embeds aspects of traditional Maori knowledge inside a quest style narrative.

This research project seeks to develop an original and relevant contribution to the field of transmedia, by creating a work that investigates how transmedia storytelling works and how it might be applied.

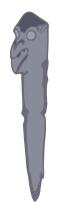
The exegesis is divided into five sections:

- 1. Positioning the Researcher: This section outlines my cultural identity, and articulates the origins and personal nature of the project, based on my own journey toward Maori language acquisition.
- **2.** Contextual and Cultural Frameworks: This section presents and discusses the critical frameworks of my research project: the emergent principles of transmedia learning, balanced against relevant Maori cultural principles that relate to the media forms employed.
- 3. Research Methods: This section discusses my interpretation and application of heuristic inquiry, incorporating a Maori research approach involving tacit, implicit and explicit knowledge, and the use of active documentation.
- **4.** *Practical and Technical Methodology:* This section discusses the evolution of my illustration style, and examines the three final media forms and the practical application of transmedia play principles.

5. Contemplations: This section revisits the hybrid visual language of deep remixability, reflects on Maori cultural influences, and concludes with final thoughts on the outcomes of the project.



1 Positioning the researcher



KO HIKURANGI, KO MANAWARU NGA MAUNGA
KO WAIAPU, KO TE ARAI NGA AWA
KO TAKITIMU, KO HOROUTA NGA WAKA
KO NGATI POROU, KO RONGOWHAKAATA NGA IWI
KO IRITEKURA, KO NGAI TAWHIRI NGA HAPU.
KEI TE TAHA O TOKU MATUA, HE MAORI, HE PAKEHA HOKI.
KEI TE TAHA O TOKU WHAEA, HE PAKEHA, HE MAORI HOKI.
KO WAIPARA TE WHANAU, KO ZAK TOKU INGOA

Figure 1. My personal pepeha

The pepeha above³ (figure 1) is a statement of Maori tribal identity,⁴ a traditional way of introducing oneself,⁵ and an affirmation of one's right to speak⁶ based upon ancestral connection or whakapapa to forebears and geography.⁷ "Whakapapa is the genealogical descent of all living things from the Gods to the present time." ⁸

The meaning of whakapapa is to lay flat one thing upon another, as when reciting genealogy – the laying out of generations of ancestors. Whakapapa also explains the origins of the material and immaterial things that exist in the Maori world. It is, therefore, an appropriately Maori way of beginning this exegesis.

Any culturally specific outlook operates from tacit understanding, and although this project began as a creative endeavour which is not strictly autobiographical, the reasons for pursuing it stem in part from personal experiences. Welby Ings describes heuristic-based research of this kind (within a postgraduate creative sphere) as "...graphic design statements that wholly, or in part, draw on navigations of the self." ⁹ For this reason I situate myself inside the project and lay out here its whakapapa or origins.

In 2002 I created a four page comic strip *Rock of Ages*, that was published in a children's book collection, *Storylines: The Anthology.*¹⁰ In 2004 I was awarded a grant by Te Waka Toi, Creative New Zealand, to develop a script continuing *Rock of Ages* in graphic novel form. The script was completed and subsequently tinkered with, but the graphic novel project was never realised (for more detail see Appendix A).

In 2010, while teaching an interactive media paper involving aspects of game design and non-linear storytelling, I started noting down ideas for how the *Rock of Ages* story might translate into a game (for notes on prior game testing see Appendix B).

³ Translation: *Hikurangi* and *Manawaru* are the mountains; *Waiapu* and *Te Arai* are the rivers; *Takitimu* and *Horouta* are the canoes; *Ngati Porou* and *Rongowhakaata* are the tribes, *Iritekura* and *Ngai Tawhiri* are the sub-tribes; On my father's side there is both Maori and Pakeha ancestry; On my mother's side there is both Pakeha and Maori ancestry; Waipara is my family, Zak is my name.

⁴ Hirini Moko Mead and Neil Grove, *Nga Pepeha a Nga Tupuna* (Wellington: Victoria University Press, 2001), 9. Sometimes referred to as a tribal boast.

⁵ Maori.org.nz, "Pepeha - What Is It?," http://www.maori.org.nz/tikanga/default.php?pid=sp72&parent=71 (accessed August 20, 2013).

⁶ Jo-Anne Gilsenan, Jane Hopkirk and Isla Emery-Whittington, "Kai Whakaora Ngangahau – Maori Occupational Therapists' Collective Reasoning," in *Clinical Reasoning in Occupational Therapy: Controversies in Practice*, ed. Linda Robertson (London: Wiley-Blackwell, 2012), 108.

⁷ University of Otago, "Mihimihi/Pepeha," *Maori at Otago/Maori ki Otago* http://maori.otago.ac.nz/reo-tikanga-treaty/te-reo/mihi (accessed April 21, 2013).

⁸ Cleve Barlow, Tikanga Whakaaro: Key Concepts in Maori Culture (Oxford: Oxford University Press, 1991), 173.

⁹ Welby Ings, "The Internal Pathway of the Self: Supervisory Implications of Autobiographical, Practice-led Ph.D. Design Theses" (paper presented at the Doctoral Education in Design Conference, Hong Kong, People's Republic of China, 2011), http://www.sd.polyu.edu.hk/DocEduDesign2011/proceeding.php (accessed November 7, 2013).

¹⁰ Tessa Duder, ed., Storylines: The Anthology (Auckland: Scholastic, 2003), 91-94.

1 Positioning the researcher



Figure 2. Origins of the project

The story involves two main protaganists, *Kurutai*, a nature sprite, and *Mokotawhito*, an ancient tuatara. Kurutai's immediate quest, with assistance from Mokotawhito, is the retrieval of the fragmented mauri of Otea before calamity occurs.

The comic strip print material has been remixed into a motion comic that serves as a prologue or origin story. A portion of the graphic novel script has been re-versioned as an electronic comic or e-comic. The game design ideas have been linked together to form an interactive quest style game (see figure 2). These three related strands form the basis for my new transmedia project - *Otea: Rock of Ages* (see figure 3).

The goal of working in transmedia is the creation of a story-world that facilitates a positive interest in Maori language and culture by way of

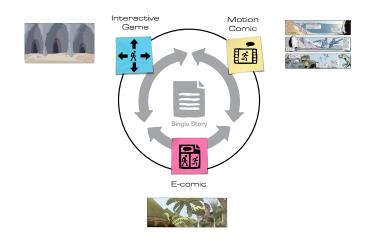


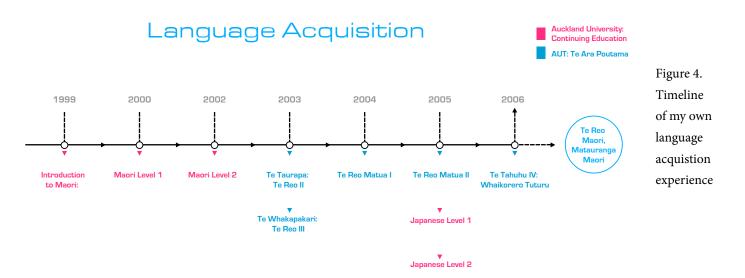
Figure 3. The new transmedia project

entertainment,¹¹ allowing the transmission of this kind of knowledge, an intersection of education, entertainment and empowerment.¹² The paradigm of this triadic approach is used by a group of educational game designers to articulate their core values, which usefully mirrors my own goals.

¹¹ Angela Fitchett, "Unspoken Racism Endemic in NZ," *Nelson Mail Online*, September 20, 2011, http://www.stuff.co.nz/nelson-mail/opinion/5656096/Unspoken-racism-endemic-in-NZ (accessed June 5, 2013). In New Zealand (a predominantly monolingual country) Maori language and culture has sometimes been negatively portrayed and politicised. Through the creation of an entertaining adventure story in which the language, customs and legends are interwoven, I hope to divorce it from any such hostile dogma.

¹² Sasha Barab et al., "Making Learning Fun: Quest Atlantis, A Game Without Guns," *Education Technology Research & Development* 53, no. 1 (2005): 89, 91.

1 Positioning the researcher



The idea of language acquisition¹³ through popular entertainment and storytelling is inspired in part by Tolkien's *Lord of the Rings*¹⁴ and his invented Elvish languages.¹⁵ The desire to pursue this project grew from many goals – a chance to work across different media concurrently, a return to sequential storytelling where I could be both author and illustrator, an abiding interest in

Maori mythology, to name some examples. It was only as I delved deeper into the project's origins that I realised it was a response to my personal journey into learning *te reo Maori*, and grew from a desire to communicate the overall positive experience, ¹⁶ and sense of wellbeing and empowerment I gained by undertaking this journey (see figure 4). ¹⁷

Dean Mahuta believes that it's vitally important that Maori occupy these digital spaces, to articulate an authentic Maori world-view.¹⁸ Born from a confluence of events, this project was a way of rephrasing my own quest for

¹³ Language acquisition is used here to refer only to a desire to learn more about a language, or create a positive connection, rather than actual language tuition. There already exist many avenues to acquire actual language learning. This function cannot be duplicated inside a small story designed primarily for entertainment. Instead, what can be fostered is familiarity with a language, and an understanding that language, culture and the worldview this creates are inextricably linked.

¹⁴ Dan Craft, "Elf Help: Linguist Ensured Films' Dialogue Was Authentic," *Pantagraph*, April 28, 2005, D1. http://ezproxy.aut.ac.nz/login?url=http://search.proquest.com/docview/252617318?accountid=8440 (accessed June 8, 2013).

¹⁵ K. Rosenberg, "Movie, Linguistics Fans Learn About Middle Earth Languages," *Pantagraph*, May 1, 2005. http://ezproxy.aut.ac.nz/login?url=http://search.proquest.com/docview/252574141?accountid=8440 (accessed June 8, 2013). Elvish has a cachet and mystique tied to the mythology of Middle Earth, which is why some fans of Tolkien's literary works are motivated to learn it.

¹⁶ In my role as an illustrator at the NZ Herald I developed Maori language graphics to foster these positive associations, but these resources were generally aimed at an adult, newspaper reading audience.

¹⁷ Although, like any quest, this was not without some intellectual struggle. Additionally, the confidence I gained from this experience, combined with my interest in manga and anime, encouraged me to take up introductory Japanese language night-classes. If reading Japanese comics could compel me to attempt to learn something of the language, perhaps a Maori comicbook could do the same for someone else.

¹⁸ Dean Mahuta, "Maori in Video Games - A Digital Identity," special issue, Te Kaharoa 5 (2012): 127.

Maori knowledge. As Rabiger points out:

"...human beings are by nature seekers, and though everyone's quest is different, everyone seeks fresh chapters of meaning during their journey through life." 19

Therefore an adventure story for children in the form of a quest, whereby Maori language and cultural concepts are an affirming, accessible and natural part of the story-world, seems to be an ideal method to communicate my own ongoing quest and enthusiasm for learning.

¹⁹ Michael Rabiger, Directing: Film Techniques and Aesthetics (Burlington, MA: Elsevier, 2008), 16.

2. CONTEXTUAL & CULTURAL FRAMEWORKS

Te ope o te ma Matanki²⁰

Due to the project's diverse components, this section brings together several separate but interrelated contextual areas working in conversation together (see figure 5), framed by the principles of transmedia and *tikanga Maori* (which can be translated as protocols).²¹ Comics (including motion comics) and game design are wide-ranging fields in their entirety. I have therefore applied relevant Maori lenses to these disciplines, as a way of focussing my research and also developing some useful guiding synergistic principles.

2.1 Remix and Remixability

My honours project, *Recollect*, applied a remix and remixability methodology to the development of content.²² Remix and remixability will again play a supporting but still essential role in this new project. In summary, remix is the practice of sampling existing media to create new but derivative material.²³

Lev Manovich took the idea further, and coined the term 'deep remixability'²⁴ – the creation of a new hybrid visual language that permeates our entire culture, "...or rather numerous languages that share the basic logic of remixability",²⁵

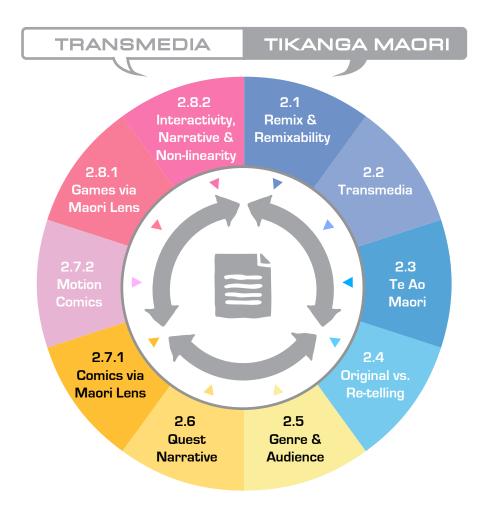


Figure 5. Conversation between relevant contextual and cultural frameworks.

^{20 &#}x27;The procession of the cavern Matariki': a proverb used about nobles and chiefs, used here to refer to the gathered contextual and cultural frameworks. Mead and Grove, *Nga Pepeha*, 383.

²¹ Barlow, Tikanga Whakaaro, 6. Here tika means 'right' and tikanga, 'the correct way'.

²² Zak Waipara, "Recollect: Remix and Remixability" (Honours' exegesis, AUT University, 2012).

²³ Eduardo Navas, "Regressive and Reflexive Mashups in Sampling Culture," in *Mashup Cultures*, ed. Stefan Sonvilla-Weiss (New York: Springer, 2010), 157-177.

²⁴ Lev Manovich, "Deep Remixability," Artifact 1, no. 2 (2007): 76-84.

²⁵ Lev Manovich, Software Takes Command, International Texts in Critical Media Aesthetics 5 (New York:

which evolved from multimedia existing inside the same digital space.

Within remix culture, there exists a sub-genre known as self-sampling, by which practitioners remix their own work.²⁶ *Recollect* was a proof of concept,²⁷ using remix and self-sampling as methodologies to build a series of linked motion graphics that explored how Manovich's language of remixability operates.

I proposed that the remix process is an improvisational creative tool for the digital practitioner, and that working in remixability (within a multitude of creative disciplines) requires you to be multilingual, having a diverse range of design skills and reference points to draw upon. In order to communicate more effectively in this hybrid language, a practitioner might achieve fluency through consistent production of materials across disciplines.²⁸ In many ways, all art is born out of cultural remix;²⁹ I argued for *conscious* use of remix within a digital design practice.

2.2 Transmedia

Remix and remixability are also closely related to transmedia, because assets are often transformed via remix into divergent digital media, and because

 $Bloomsbury Academic, 2013), 272. \ \underline{http://issuu.com/bloomsburypublishing/docs/9781623566722_web} \ (accessed December 4, 2013).$

 $Techopedia, "Proof of Concept (POC)," \underline{http://www.techopedia.com/definition/4066/proof-of-concept-\underline{poc} and \underline{poly} \underline{http://www.techopedia.com/definition/4066/proof-of-concept-\underline{poc} \underline{http://www.techopedia.com/definition/d$

transmedia requires versatility in working across these same media. Therefore, having some shared methodologies, this current research project, *Otea*, builds upon my earlier investigations into remix, and branches off into transmedia.

Stacey Edmonds defines transmedia within entertainment as "the delivery of the story across multiple platforms." ³⁰ However, because the term transmedia is sometimes applied broadly, a distinction should be made between transmedia storytelling and transmedia branding. The first deals with a consistent story (deliberately told across many media), and the second, "...we can think of as the Mickey Mouse lunchbox" ³¹ - which is not consciously designed to enhance or add to the storyworld, but to expand awareness of a brand.

Andrea Phillips divides transmedia storytelling further into two types - one story splintered across many media and one story added to *ad infinitum*.³² Tyler Weaver defines these divisions as 'native transmedia' and 'additive transmedia'. Weaver has a third category, which he colloquially calls 'crap transmedia', for unsuccessful projects conceived without an understanding of transmedia in mind. I have paraphrased it more usefully as 'exploitative' (in that transmedia is adopted because it is trendy, rather than due to the potential it offers). This third category could include native and additive types, as well as branding campaigns (see figure 6, overleaf).

²⁶ Mark Amerika, "Source Material Everywhere [[G.]Lit/ch RemiX]," in *Transgression 2.0: Media, Culture, and the Politics of a Digital Age*, eds.. Ted Gournelos and David J Gunkel (Continuum, 24 November 2011), EBL e-book, 59.

 $^{27 \}quad \text{A proof of concept is a demonstration that certain concepts or theories have real-world application.}$

²⁸ Zak Waipara, "Recollect," 27.

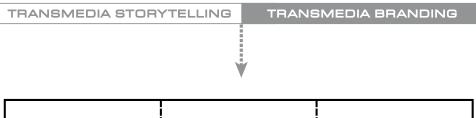
²⁹ Kirby Ferguson, "Embrace the Remix," TED.com, talk filmed June 2012, posted June 2012, http://www.ted.com/talks/kirby_ferguson_embrace_the_remix#t-76397 (accessed December 15, 2013).

³⁰ Stacey Edmonds, "Transmedia Learning", Training & Development in Australia (December 2010): 36-38.

³¹ Janet H. Murray, "Transcending Transmedia: Emerging Story Telling Structures for the Emerging Convergence Platforms," in *Proceedings of the 10th European Conference on Interactive TV and Video (EuroiTV '12)* (New York: ACM, 2012), 1-6.

³² Andrea Phillips, A Creator's Guide to Transmedia Storytelling: How to Captivate and Engage Audiences Across Multiple Platforms (New York: McGraw-Hill Books, 2012), 15.

³³ Tyler Weaver, Comics for Film, Games, and Animation: Using Comics to Construct Your Transmedia Storyworld (Burlington, MA: Focal Press, 2013), 11.



Native Transmedia	Additive Transmedia	ia Exploitative Transmedia	
Stories conceived to	Stories that have	Transmedia for the	
be transmedia from	transmedia elements	sake of it, buzz worthy	
beginning.	added on afterwards.	or solely for marketing.	

Figure 6. Types of transmedia adapted from Tyler Weaver's definitions

When looking at defining types of transmedia, the producer's intent plays an important role, but it is interesting to note that consumers (particularly in the case of children) can extract story meaning even from merchandise and logos. This is one reason why branding is such a powerful mechanism.

Edmonds uses The Matrix to deftly explain a transmedia approach, "...where you can watch the film, play the game, read the comic". This is neatly reflected in my own project: an animation (motion comic), an interactive game and an e-comic. These forms were chosen out of a need to, as Dr. Christie Dena recommends, "...create with media that you already work with, love or are genuinely curious about". The key idea is that combining artforms that you

are passionately interested in will result in sincere self-expression.

Henry Jenkins, a major theorist in the field,³⁶ maintains the success of transmedia projects is more likely when a single vision (or creator) holds creative control.³⁷ However, success can also be difficult given the range of skills required to work across transmedia, an important reason for purposefully limiting the scope of my project.

Given that *Otea* is aimed at children (though not exclusively), a relevant concept that emerges from the academic discourse is learning via transmedia play.³⁸ The coining of the term transmedia actually began with children's media in the first instance.³⁹

"Sesame Street from the very start encouraged its young fans to follow it across media platforms — from television to records, books, stuffed toys, public performances, feature films, and much more." 40

As a result, transmedia is a natural delivery process for modern audiences.

Usefully, transmedia experiences for children, even without explicit educational objectives⁴¹ and content, still offer opportunities for learning.⁴² For Jenkins, transmedia works best and attracts a wider audience by pitching the

³⁴ Edmonds, "Transmedia Learning," 36.

³⁵ Christie Dena, in *Comics for Film, Games, and Animation: Using Comics to Construct Your Transmedia Storyworld*, by Tyler Weaver (Burlington, MA: Focal Press, 2013), 49.

³⁶ Jenkins, Convergence Culture. This is his seminal text on transmedia creation.

³⁷ Ibid., 93.

³⁸ Becky Herr-Stephenson, Meryl Adler, and Erin Reilly, *T is for Transmedia: Learning Through Transmedia Play* (Los Angeles: USC Annenberg Innovation Lab/Joan Ganz Cooney Center, 2013), 10. http://www.joanganzcooneycenter.org/wp-content/uploads/2013/03/t is for transmedia.pdf (accessed April 22, 2013).

³⁹ Herr-Stephenson, Adler, and Reilly, T is for Transmedia, 6.

⁴⁰ Jenkins, introduction to *T is for Transmedia*, 4.

⁴¹ Kelsey Herron, "How 'Transmedia Play' Can Help Build 21st-Century Literacies," *Common Sense Media*, September 4, 2013. http://www.commonsensemedia.org/educators/blog/how-%E2%80%98transmedia-play%E2%80%99-can-help-build-21st-century-literacies (accessed September 15, 2013).

⁴² Herr-Stephenson, Adler, and Reilly, T is for Transmedia, 10.

content differently across the divergent media.⁴³ This informed my approach, in order to transmit the cultural underpinnings of the story more widely, as "... different storytelling artifacts [...] provide different entry points into the story at different times, for different audiences...".⁴⁴

In this way, transmedia stories can offer a fully immersive experience, "the realm of deep experiences...[which] can evoke emotions that simply can't be replicated in a single novel or film." ⁴⁵ Stories that are reinforced across media through repetition of elements are designed to maximise the involvement of the audience through these multiple entry points.

Transmedia is immersive primarily because of repetition and participation in the story. Audience members become participants after the initial experience by (metaphorically) taking these stories away, and then revisiting, reliving and remixing them.

"The complex, interconnected, and dynamic narratives and vibrant story worlds characteristic of transmedia, provide fertile sites for children to explore, experiment, and oftentimes contribute as story worlds unfold across media." 46

Some transmedia campaigns aim to create participation via social media "...to reach their audience directly, and enabling the audience to cocreate its experience

to a greater extent than ever before." ⁴⁷ Gomez claims that transmedia builds brand mythology, encouraging participation and the extension of the brand's narrative by the target audience.⁴⁸

Some producers view their audience in terms of participatory consumers, who are "...aware of their ability to create, co-create, modulate and propagate content." ⁴⁹ Even if the audience are not co-creators in the sense of participating directly through social media, immersive content encourages them to dwell on, or in some sense in, the story-world. This factor is exciting for transmedia producers, given the potential of an audience that actively disseminates the story.

If the target audience is conceived of as learners rather than consumers (a distinction that emphasises active participation over passive consumption), immersion and participation can be seen as powerful tools for creators interested in educational transmission through transmedia.

This varied, multi-media approach is also how transmedia learning allows the audience to experience the narrative in a form suited to their learning style, resulting in an effective and enjoyable learning experience.⁵⁰

Transmedia learning works because it leverages what children already know and how they play.

"Transmedia, done well, can contribute to an immersive, responsive,

⁴³ Henry Jenkins, "Transmedia Storytelling: Moving Characters From Books to Films to Videogames Can Make Them Stronger And More Compelling," *Technology Review* (2003). http://www.technologyreview.com/biotech/13052/ (accessed May 16, 2013), 3.

⁴⁴ Elmar Hashimov and Brian McNely, "Left to Their Own Devices: Ad Hoc Genres and the Design of Transmedia Narratives," in *Proceedings of the 30th ACM International Conference on Design of Communication* (Seattle: ACM, 2012), 252.

⁴⁵ Phillips, "A Creator's Guide," 5.

⁴⁶ Herr-Stevenson, Adler, & Reilly, T is for Transmedia, 10.

⁴⁷ Salkowitz, Comic-Con and the Business of Pop Culture, 12.

⁴⁸ He points out that this increased participation carries the risk of the creator losing control over the narrative. Jeff Gomez, in Adrian Pennington, "Transmedia: Starring Role," *New Media Age*, September 9, 2010, 19-20.

⁴⁹ Paul Jonathan, "The Path to Transmedia," Strategy, March 2010, 32.

⁵⁰ Stacey Edmonds, "The Pointy End of the Point..." Edmonds Overdrive Blog, entry posted May 28, 2010, http://edmondsoverdrive.me/?p=8 (accessed May 16, 2013).

TRANSMEDIA PLAY 1. Can promote new approaches to reading. 2. Can encourage learning via multiple entry points. 3. Involves exploration, experimentation and remix.

Figure 7. These transmedia play principles have been applied practically to my project in Section 4.5.

learner-centered learning environment rich with information and linked to children's existing knowledge and experiences." ⁵¹

Key transmedia principles of learning via play are set out in figure 7.52

2.3 Te Ao Maori and Transmedia

Despite the recent trend for transmedia in creative industries,⁵³ Jenkins shows this is not necessarily a new idea:

"For most of human history, it would be taken for granted that a great story would take many different forms, enshrined in stained glass windows or tapestries, told through printed words or sung by bards and poets, or enacted by traveling performers." 54

This is a feature of pre-literate cultures,⁵⁵ but also continued into post literate societies.⁵⁶ The same might be said of *te ao Maori*,⁵⁷ where the same mythic stories have always been told across a variety of artforms.⁵⁸ It is important to note that "Maori did not separate art from other aspects of culture; art was central to all activities and all objects." ⁵⁹

Since everything in traditional Maori society was interconnected,⁶⁰ it becomes apparent why the same stories flow through different forms of expression (see Appendix C for an example).

Applying Jenkins' broad view of transmedia and early societies, a transmedia approach fits harmoniously with Maori ways of telling stories. In this way my practice in the production of *Otea* is replicating a traditional approach to cultural storytelling, but using the modern idioms of a motion comic, an e-comic and a quest–style game.

The Maori knowledge (*matauranga*) embedded in the story refers specifically to Maori astronomy (including *Matariki* - the new year), the concept of *mauri*, and some Maori language in the form of proverbs and phrases. But the broader Maori worldview employed has also influenced the

⁵¹ Herr-Stephenson, Adler, and Reilly, T is for Transmedia, 10.

⁵² Adapted from Herr-Stephenson, Adler, and Reilly, *T is for Transmedia*, 2.

⁵³ Eric Wecks, "Technology and Storytelling, Part 1: Transmedia World-Building," Geek Dad Blog on Wired.com, entry posted October 19, 2012, http://www.wired.com/geekdad/2012/10/technology-and-storytelling-1/ (accessed May 4, 2013). Usually used in branding and marketing of commercial entertainment franchises.

⁵⁴ Henry Jenkins, "Transmedia Storytelling," 3.

⁵⁵ The term preliterate is used here without any value judgment. Traditional Maori society may not have used writing, but they were visually literate in many other forms of art.

⁵⁶ Lindsey Marshall and Lester Meachem, How to Use Images (London: Laurence King, 2010), 9.

⁵⁷ The Maori world.

⁵⁸ Margaret Orbell, *The Illustrated Encyclopaedia of Maori Myth and Legend* (Christchurch: Canterbury University Press, 1996), 12.

⁵⁹ Julie Paama-Pengelly, Maori Art and Design: Weaving, Painting, Carving and Architecture (Auckland: New Holland, 2010), 11.

⁶⁰ Deidre Brown, *Maori Arts of the Gods* (Auckland: Reed Books, 2005), 52. For example, a utilitarian gardening implement (*ko*) would be embellished by being carved and then dedicated to the deity *Rongomatane*, combining the agricultural, the artistic and the spiritual.

project, so that more subtle forms of *Matauranga Maori* are included. This is detailed more thoroughly in Appendix A.

2.4 Original Story vs Retelling Practice

"The great legends, like the best fairy tales, must be retold from age to age: there is always something new to be found in them, and each retelling brings them freshly and more vividly before a new generation – and therein lies their immortality." 61

So wrote Roger Lancelyn Green about the enduring importance of retelling stories. Noted comic author Neil Gaiman admits that some of his "...favourite sources of inspiration are those stories that have traditionally been called myths", believing "...passionately that their retelling is important." 62 He explains this practice as "...recursive fiction that draws upon existing characters." 63

Davies describes Gaiman's work as "...fiction which interpenetrates other secondary or fictional worlds." ⁶⁴ This definition illustrates the idea of connecting existing stories with new material. In literary terms this could be considered a kind of remix methodology. ⁶⁵ Tolkien did exactly this when he blended

together Norse myths and Anglo-Saxon folklore in order to set the scene for a new creation in *The Hobbit*.⁶⁶ The term recursive refers to a rule or procedure that can be applied repeatedly. Interestingly, retelling is a natural part of oral societies and here it is recursive in the original sense. In retelling, the stories are 'lived again'.

In oral cultures, with no writing system to record tangible documents, repetition was central to recall. In the world "...of the ancient Maori [...] the accumulation and transmission of experience was almost exclusively oral." 67

From my professional experience working in the fields of children's books and children's television (see Appendix B), the contemporary Maori stories that deal with myth and legend which I have encountered or worked on myself are almost always retellings of traditional stories (although it is important to note that even these retellings were edited).⁶⁸

The retelling of traditional stories with spiritual and ancestral significance to the culture out of which they arose, may explain a certain reticence by practitioners to add to or embellish the existing mythos. By contrast, *Otea* is an original story that builds upon the established foundations of a vast, already existing Maori mythology. Its point of difference is that it is new.

Usefully, Robyn Kahukiwa is one practitioner who has created her own

⁶¹ Roger Lancelyn Green, King Arthur and his Knights of the Round Table (London: Penguin Books, 1953), 13.

⁶² Alice Davies, "The Stories We Tell Ourselves: History and Narrativity in Neil Gaiman's The Sandman: Thermidor" (lecture, Aussiecon 4, Melbourne, VIC, September 2, 2010), 1. http://www.academia.edu/1669978/
The Stories We Tell Ourselves History and Narrativity in Neil Gaimans The Sandman Thermidor (accessed May 11, 2013).

⁶³ Hank Wagner, Christopher Golden and Stephen R. Bisette, *Prince of Stories: The Many Worlds of Neil Gaiman* (New York: St Martins Press, 2008), 30.

⁶⁴ Davies, "The Stories We Tell Ourselves", 1.

⁶⁵ Waipara, "Recollect", 12. Also discussed in relation to Alan Moore and the *League of Extraordinary Gentlemen*, in my Honours research.

⁶⁶ Tom Shippey, J.R.R. Tolkien: Author of the Century (London: HarperCollins, 2001), 13.

⁶⁷ Barry Mitcalfe, Maori Poetry: The Singing Word (Wellington: Victoria University Press, 1974), 1. My emphasis.

⁶⁸ A.W. Reed, *Treasury of Maori Folklore* (Wellington: A.H. & A.W. Reed, 1963), 12. The legends, as they exist today, did not arrive fully formed and intact. Examination of the variations that exist from iwi to iwi, or between Maori and their Polynesian 'cousins' show that alterations have occurred. Even shared whakapapa between related but distinct iwi groups will show variation.

original Maori story, *Supa Heroes: Te Wero*,⁶⁹ which retains familial ties to prior mythic stories. The genesis of Kahukiwa's transmedia creation lay in a desire to gift her mokopuna their own contemporary Maori superheroes "who have whakapapa (genealogy) to Polynesia." ⁷⁰ The term transmedia is used here because Kahukiwa's goal was to create these characters with "...stories, CD-ROMS and action figures..." ⁷¹ These superheroes, Hina and Maui, two orphaned children, are raised by Rehua, the God of Mercy and Kindness. In my project, genealogy also makes an appearance, with Mokotawhito reciting Kurutai's whakapapa.

In some measure adopting Kahukiwa's approach, *Otea* sprouts from extant myths without altering the originals. This is important, because although Maori culture is not static, as Simmons asserts "...whakapapa or genealogy is the rope that holds culture together. Whakapapa is that which keeps the mana and rights intact and likewise sustains the culture and cultural activities." 72

Retelling also has the purpose of transmission of culture for continuation. Since my story uses more obscure aspects of Maori myth, interwoven with new creations, the project can embrace the idea of invention and innovation while remaining culturally robust.⁷³ It is possible that some Maori may be uncomfortable or disagree with the approach I have taken, given that, as

"...Maori people are all different from each other, just as any other group of people are, so you get a variety of backgrounds that are Maori.

But these varied backgrounds may have some things in common..." 74

The key is to walk a careful line between honouring the precepts of the cultural past while embracing elements that the contemporary world offers, ⁷⁵ following in the footsteps of Kahukiwa and Grace, who: "…are at the forefront of writers creating a new mythology for the children, and grandchildren, of today." ⁷⁶

There are two lines of whakapapa for this project: those ancestral links between *Otea* and existing Maori mythology and folklore, and the historical events that led to the genesis of the project. By laying these histories down, one layer upon another in accordance with Maori custom, I hope to make clear how such a story might be both original in its creation and yet retain the hereditary truth of its mythic literary forebears, and thus express its Maori identity (for a detailed history see Appendix A). After all, as Tolkien himself wrote "…antiquity like a many-figured back-cloth hangs ever behind the scene." 77

Patricia Grace notes,

⁶⁹ Robyn Kahukiwa, Supa Heroes: Te Wero (Rotorua: Mauri Tu, 2000).

⁷⁰ Robyn Kahukiwa et al., *The Art of Robyn Kahukiwa* (Auckland: Reed Books, 2005), 132.

⁷¹ Robyn Kahukiwa, artist's statement, October 2007, "Robyn Kahukiwa – Superheroes Exhibition," Warwick Henderson Galleries. http://www.warwickhenderson.co.nz/exhibition/superheroes/ (accessed June 4, 2013).

⁷² David Simmons, Meeting-houses of Ngati Porou o te Tai Rawhiti: An Illustrated Guide (Auckland: Reed Books, 2006), 167.

⁷³ For an example of this kind of practice, Native American author Joy Harjo praises Patricia Grace's ability "...to reach back to the ancestors and the oldest knowledge and to pull it forward and weave it together.." Joy Harjo, "In Honor of Patricia Grace," *World Literature Today*, May 2009, 34.

⁷⁴ Paloma Fresno Calleja and Patricia Grace, "An Interview with Patricia Grace," *Atlantis* 25, no. 6 (2003): 111-112.

^{75 &}quot;Robyn Kahukiwa and Patricia Grace created a new taniko design, born from careful study of the old, and added to the existing weaving lore, demonstrating a respectful way of working." Keri Kaa, foreword to *Wahine Toa: Women of Maori Myth*, by Robyn Kahukiwa and Patricia Grace (Auckland: Viking Pacific, 1991), 7.

⁷⁶ Matt Bowler and Poppy Bowler, "Taniwha, Fairies and Birds Charm," The Nelson Mail, February 11, 2009.

⁷⁷ J.R.R. Tolkien, *Sir Gawain and the Green Knight* (London: HarperCollins, 1997), 73. Tolkien used this visual metaphor in describing the elder stories that lay behind the creation of the poem *Sir Gawain and the Green Knight*.

2.5 Genre and Audience

Hirini Moko Mead asserts that, "in traditional Maori belief a talent for creativity comes to the individual through the parents and down through one's ancestry." ⁷⁸ Mead maintains that, according to traditional values, it is the duty of the recipient of such skill to use this talent in the service of their iwi.⁷⁹ This project is an original fantasy adventure story that draws on Maori mythology and folklore, for Maori children (though not exclusively).⁸⁰

According to Laetz and Johnstone, "Fantasy is a transmedia genre." 81 This claim is made on the basis that, more than any other genre, fantasy has always employed other media to tell its stories, and is often adapted into other forms. Furthermore, "Works of fantasy are inspired, directly or indirectly, by myths, legends, and folklore." 82

In Jenkins' view, Tolkien "...self-consciously imitated the organization of folklore or mythology, creating an interlocking set of stories that together flesh out the world of Middle Earth." 83 Creating a broader, deeper story-world using mythology as backstory is one of the hallmarks of transmedia storytelling.

"Many great works of fantasy do inspire a sense of innocent wonder, especially for children and youths. And this is a very important part of the genre's historical legacy. Indeed, it may even be largely responsible for the initial development of the genre." 84

This quality of wonder is one I associate with reading original Maori myths and is therefore important to maintain in this new work. Kahukiwa's contemporary superhero myth, though tinged with dark themes, "…remains aspirational and easy-to-read for its intended younger audience." 85

Kurutai, my main protagonist (a child), is designed as an aspirational conduit for children to enter into the story-world of *Otea*. Given that children gravitate to transmedia naturally (see 2.2), pairing it with the fantasy genre seems an apt proposition.

Animal stories⁸⁶ (a feature of children's fiction) are also a staple of the fantasy genre. This is true of Maori fables, where gods, humankind and animals interact and are interrelated. In *Otea* there are three main animal characters that feature across the project's components, *Mokotawhito* (a tuatara), *Mokokata* (a gecko) and *Pakauroa* (an albatross).

Laetz and Johnston describe the genre's audience:

⁷⁸ Hirini Moko Mead, Tikanga Maori: Living by Maori Values (Wellington: Huia Publishers, 2003), 254.

⁷⁹ Mead. *Tikanga Maori*, 255. In this context I would use a broad translation of iwi, to mean not just a specific tribe but Maori people generally.

⁸⁰ Waipara, "Recollect". As a result I am working in the fantasy genre, which was absent from my last year's Honours project, the multi-genre motion graphic series *Recollect*.

⁸¹ Brian Laetz and Joshua J. Johnston, "What is Fantasy?" *Philosophy and Literature* 32, no 1 (April 2008): 161. http://muse.jhu.edu/login?auth=0&type=summary&url=/journals/philosophy and literature/v032/32.1.laetz.html (accessed June 6, 2013).

⁸² Laetz and Johnston, "What is Fantasy?," 164.

⁸³ Jenkins, Convergence Culture, 122.

⁸⁴ Laetz and Johnston, "What is Fantasy?," 169.

⁸⁵ David Eggleston, "Earth and Spirit: Robyn Kahukiwa's Mauri Ora! Exhibition," *Art New Zealand*, no 134 (Winter 2010). http://www.art-newzealand.com/Issue105/robyn.htm (accessed June 12, 2013).

⁸⁶ Laetz and Johnston, "What is Fantasy?," 170. Referred to as xenofiction.

2.6 Quest Narrative

As discussed in Section 1, the quest narrative plays an important role in framing the project both as a storytelling method and as a mirror for my own language journey.

As Rabiger notes, life marks us in unique ways, and the experience is often reframed via story.⁸⁷ What makes the quest form compelling is that it is often a familiar metaphorical life journey,⁸⁸ making it naturally attractive to an audience.⁸⁹ Robert McKee believes all stories are simply versions of the same story since time immemorial – and that story is the quest,⁹⁰ which Joseph Campbell calls the monomyth. Campbell developed this concept from studying comparative cultural mythologies, including Maori cosmogonies.⁹¹

The Maui cycle⁹² is a classic Maori (and Polynesian)⁹³ example of the quest narrative and embodies many archetypal qualities. As such there are deliberate commonalities between its story and *Otea*: *Rock of Ages*. Maui and Kurutai both share an unusual birth (see figure 8) and are abandoned/orphaned children, both are mentored by eccentric hermit style characters, and have some form of



Figure 8. Panel showing Kurutai's birth.

intervention from the Gods on their behalf.

"The underlying purposes of a hero's quest include not only the working out of destiny, but also confirmation of his or her identity." 94

This was true of Maui and will eventually become a central theme for Kurutai.

2.7 Comics

2.7.1 Comics: via a Maori lens

Sequential storytelling using words and pictures is central to definitions of the comicbook form.⁹⁵ There are no clear equivalents for this artform in *te ao Maori*, but parallels might be drawn between the way ancient hieroglyphic narratives, wall tapestries⁹⁶ and church windows⁹⁷ have been defined as protocomics.

Maori employed visual storytelling of their own. In carved, stylised wooden

⁸⁷ Rabiger, Directing, 18.

⁸⁸ John Izod, *Myth, Mind and the Screen: Understanding the Heroes of Our Times* (Cambridge: Cambridge University Press, 2001), 105. "The mythological journey of the hero as recognised by classical Jungians represents a pattern of transformation long since rendered familiar by repetition in numerous guises across many forms of narrative art."

⁸⁹ Rabiger, *Directing*, 25. Consciously or not, the audience is "...pursuing a quest and starving to join a journey of exploration..."

⁹⁰ Robert McKee, Story: Substance, Structure, Style and the Principles of Screenwriting (New York: Methuen, 1999), 196.

⁹¹ Joseph Campbell, The Hero With A Thousand Faces (London: Fontana Press, 1993), 292.

⁹² Reed, Treasury of Maori Folklore, 116.

⁹³ Campbell, The Hero With A Thousand Faces, 91.

⁹⁴ Izod, Myth, Mind and the Screen, 13.

⁹⁵ Scott McCloud, Understanding Comics: The Invisible Art (Northampton, MA: Kitchen Sink Press, 1993), 9.

⁹⁶ McCloud, Understanding Comics, 10.

⁹⁷ Art Spiegelman, Metamaus (New York: Pantheon Books, 2011), 166.

forms, historical events might be depicted side by side, or ancestors and descendants juxtaposed in the same carving, showing a familial link. Today we might read this juxtaposition as a chronological shift in perspective, though in Maori belief the ancestors are ever-present. A row of such carved posts in a meeting house could also be seen as sequential, standing as they do, one after another.

In addition the practice of *ta moko* (traditional Maori tattooing) tells a story about the life of its wearer.¹⁰⁰ The linear quality and the use of ink to inscribe information¹⁰¹ are the only common elements between ta moko and comic art.¹⁰²

Archaic rock painting was an early Maori pictorial artform developed on cave walls. It depicts not only "...highly stylised humanoids, fish, extinct eagles and moa [...] but also powerfully conceived marine monsters and mysterious birdmen." 103

The art is thought to be associated with hunting and spiritual practices,¹⁰⁴ and is sometimes hypothesised to be sympathetic magic. Rendered in pigments and charcoal, the stories it tells are primal and powerful.¹⁰⁵ Usefully, cave drawings

have already been compared to sequential storytelling.¹⁰⁶

From a Maori perspective, the comics medium is a wholly new, non-indigenous artform. Nevertheless it is one that holds great personal attraction for me. The power of the comics medium lies in its ability to balance words and pictures in creative juxtaposition.

From the point at which spoken Maori was transcribed by missionaries into a written system, Maori artisans began adding text to supplement their visual work - whether carved, woven, painted or inked - and comic storytelling is a natural outgrowth of this practice.¹⁰⁷

If the function of Maori art is to connect the ordinary world with the spiritual one – including gods, supernatural beings and the ancestors, then this portion of my project also seeks to reaffirm this principle, by employing the modern idiom of comics to engage with the ancestral power that resides in the stories of our mythic past.

My own process of image-making might employ pen and paper, computer and mouse, but like the rock paintings of old, I aim to invoke some graphic magic through the synthesis of words and pictures, as there are no boundaries

⁹⁸ Mead, *Tikanga Maori*, 255. "According to traditional beliefs the source of woodcarving traces back either to a mythical otherwordly ancestor or to a God."

⁹⁹ Orbell, The Illustrated Encyclopaedia, 36.

¹⁰⁰ David Simmons, *Ta Moko: The Art of Maori Tattoo* (Auckland: Reed Books, 1986), 126. The story is usually genealogical, delineating hereditary rank.

¹⁰¹ Described poetically by Ngahuia Te Awekotuku: "...a graphic accounting of memory and desire..." Ngahuia Te Awekotuku, *Mau Moko: The World of Maori Tattoo* (Auckland: Viking, 2007), 8

¹⁰² Mead, Tikanga Maori, 264. The shedding of blood during this process makes this ritual highly tapu (sacred).

¹⁰³ Alan Taylor, Maori Folk Art (Auckland: Century Hutchison, 1988), 3.

¹⁰⁴ Ibid., 3.

¹⁰⁵ Paama-Pengally, Maori Art and Design, 58.

¹⁰⁶ James Murphy, "Sequential Art: History and Legacy," (Ormond Beach, Florida: Ormond Memorial Art Museum and Gardens, Fall 2013) http://www.ormondartmuseum.org/history%20handout.pdf (accessed October 16, 2013).

¹⁰⁷ Brown, Maori Arts of the Gods, 48; [Photograph of woven tukutuku image of Toi] Alexander Turnbull Library, reference: 51419 1/2, in Tamati Muturangi Reedy, "Ngāti Porou - Toi descendants," Te Ara - The Encyclopedia of New Zealand http://www.teara.govt.nz/en/photograph/4375/tukutuku-panel-depicting-toi (accessed September 2, 2013); Roger Neich, Painted Histories: Early Maori Figurative Painting (Auckland: Auckland University Press, 1994), 37; Te Awekotuku, Mau Moko, 66.

¹⁰⁸ Brown, Maori Arts of the Gods, 5.

to the stories that comics can tell. 109 My personal involvement in the medium of comics has been a lifelong one (see Appendix B).

From rock drawings to computer pixels, Maori art is in transition.¹¹⁰ Comics are also undergoing a shift from print to digital, with the advent of reading devices like the iPad and e-book technology.¹¹¹ Wecks makes this interesting observation: "In some ways, every graphic novel is a transmedia work, depending on both the illustrations and the text to carry the weight of the storytelling." ¹¹²

Parallels can even be drawn between the 'gutter' space between comic panels and the gaps between transmedia platforms. These notions provide a strong foundation for the inclusion of the e-comic component of the project.

2.7.2 Comics: Motion comics

An outgrowth of the comic artform, motion comics exist at the intersection of comics, remix and motion graphics, as they are most often adapted from pre-existing material.¹¹⁴ Adaptation is both similar and different to remix, the idea being to produce something that resembles the original closely but is changed to account for the new medium. Therefore, adaptation may be seen

as a type of remix.¹¹⁵

Smith defines the artform:

"Motion comics can be considered as an emerging form of digital animation that typically appropriates and remediates an existing comic book narrative and artwork into a screen-based animated narrative." 116

So although motion comics also sit within the field of motion graphic design they employ more overt narrative content.

Briefly, motion graphic design is the art of bringing graphic design to life through animation, and is not a single discipline but rather a convergence of multiple disciplines, which can include "…animation, illustration, graphic design, narrative, filmmaking, sculpture, and architecture." 117

Motion graphics are most often used for opening titles sequences, television idents, advertisements, and animated informational graphics.¹¹⁸ A major use of the motion comic is as a promotional tool: teaser trailers for existing comics, prologues for films, or supplementary story included on DVDs.¹¹⁹ Although driven by commercial imperatives,¹²⁰ the main aim is extension of the story or

¹⁰⁹ McCloud, Understanding Comics, 22.

¹¹⁰ Mahuta, "Māori in Video Games," 127.

¹¹¹ Martha Cornog and Steve Raiteri, "Graphic Novels," Library Journal (March 2011): 15.

¹¹² Erik Wecks, "Technology and Storytelling Part 2: Transmedia Novels? Still 5 Minutes in the Future," GeekDad Blog on Wired.com, entry posted October 26, 2012, http://www.wired.com/geekdad/2012/10/transmedia-novels/ (accessed June 6, 2013).

[&]quot;Geoff Long, a transmedia scholar, has long discussed the similarities between the gutter in comics (the space between the panels where imagination has to fill the holes) and the gutter in transmedia storytelling (the spaces between media fragments)." Weaver, *Comics for Films*, 209; Also discussed in Scott Walker, "The Narrative (and Collaborative) Gutter of Transmedia Storytelling," MetaScott Blog, entry posted September 7, 2010, http://metascott.com/2010/07/19/the-narrative-and-collaborative-gutter-of-transmedia/ (accessed April 4, 2013).

¹¹⁴ Usually printed comics, remixed and/or adapted using the features of motion graphics.

¹¹⁵ Craig Smith, "Motion Comics: Modes of Adaptation and the Issue of Authenticity," *Animation Practice, Process & Production* 1, no. 2 (June 2012). Despite the lack of academic coverage, Craig Smith, a PhD candidate from Surrey University, has set up a blog devoted to the study of motion comics: http://craigjamessmith.wordpress.com/

¹¹⁶ Ibid

¹¹⁷ Matt Woolman, Motion Design: Moving Graphics for Television, Music Video, Cinema, and Digital Interfaces (Switzerland: Rotovision, 2004).

¹¹⁸ MotionPlus Design, "What is Motion Design?" MotionPlus Design website video introduction, http://motion-plus-design.com/english/ (accessed July 14, 2012).

¹¹⁹ Chris Albrecht, "The Rise of Motion Comics Online," Gigaom.com, July 30, 2008, http://gigaom.com/video/the-rise-of-motion-comics-online/ (accessed April 4, 2013).

¹²⁰ Johanna Draper Carlson, "What's the Point of a Motion Comic?" DVDs Worth Watching Blog, entry posted

brand, making motion comics a natural discipline for transmedia use.

Though this new medium is not without its detractors, ¹²¹ Smith poses a rhetorical argument in favour of the artform:

"While the motion comic does not exhibit the sophistication of or nuances of either of these classic forms [cel and CGI animation], should we disregard what can be achieved by animating or manipulating the static artwork of an existing comic book narrative?" 122

The value of this form, for me, lies in its ability to borrow and employ the features of motion graphics, such as animation, visual effects, graphic design, 3D elements and sound, to engage an audience.¹²³

According to Joe Quesada, Editor-in-Chief of Marvel Comics, cel animation tends to distill illustration into a simpler (and therefore easier) form to replicate, whereby a motion comic's point of difference is to retain all the complexity and "*purity of art*". ¹²⁴ Normally, there is an inverse relationship between the complexity of the illustration and the complexity of animation. Motion comics allow the individual stylistic quality of the

artist's illustration to be retained while adding some animation properties.

2.8 Games

2.8.1 Games: via a Maori lens

According to Elsdon Best, Maori games and pastimes, referred to as *nga* mahi a te rehia or the arts of pleasure, originate from certain deities.¹²⁵ Charles Royal names Rehia as a "...deity under who all amusements and entertainment were said to be conducted." ¹²⁶

Harko Brown elaborates:

"Games connected Maori directly and powerfully to their spiritual beliefs and their wairua. All games had strong links to the numerous atua, which Maori believed were guardians to the realms of the world." 127

As noted in section 2.3, all aspects of Maori culture are interwoven, making strict divisions between games, sports, pastimes and other artforms arbitrary.¹²⁸

August 23, 2009, http://comicsworthreading.com/2009/08/23/whats-the-point-of-a-motion-comic/ (accessed April 4, 2013).

¹²¹ Mark Waid, "TOC 2013: Reinventing Comics And Graphic Novels For Digital," YouTube video file, 4:31, http://www.youtube.com/watch?v=vPikusZm2As (accessed April 4, 2013).

¹²² Craig Smith, "SDCC Mailbag: An Academic View of Motion Comics," in Patrick Killik's OortCloud Comics Blog, entry posted July 27, 2012, http://oortcloudcomics.com/sdcc-mailbag-another-point-of-view-on-motion-comics/ (accessed April 6, 2013).

¹²³ Albrecht, "The Rise of Motion Comics Online."

¹²⁴ Joe Quesada, "Spider-Woman Motion Comic: Behind the Scene," YouTube video file, 0:34, http://www.youtube.com/watch?v=7iuKm6FLIwg (accessed August 18, 2013).

¹²⁵ Elsdon Best, Games and Pastimes of the Maori: An Account of Various Exercises, Games and Pastimes of the Natives of New Zealand, as Practised in Former Times: Including Some Information Concerning Their Vocal and Instrumental Music (Wellington: Government Printer, 1976), 11-12.

¹²⁶ Charles Royal, "Te Whare Tapere: Towards a New Model for Māori Performing Arts" (PhD diss., Victoria University of Wellington, 1998). http://www.charles-royal.com/default.aspx?Page=129 (accessed December 1, 2013).

¹²⁷ Harko Brown, Nga Taonga Takaro: Maori Sports and Games (Auckland: Penguin, 2008), 9.

¹²⁸ Elsdon Best, The Astronomical Knowledge of the Maori, Genuine and Empirical: Including Data Concerning Their Systems of Astrogeny, Astrolatry, and Natural Astrology, with Notes on Certain Other Natural Phenomena (Wellington: R.E. Owen, Govt. printer, 1955) http://nzetc.victoria.ac.nz/tm/scholarly/tei-



Figure 9. A revived traditional Maori game: Mu Torere

Games, pastimes and feats of skill feature throughout Maori myths and legends. Storytelling was used to pass on knowledge about games.¹²⁹

For example, many games feature in the story of *Hutu and Pare*, such as darts, spinning tops and a kind of catapault-swing for jumping.¹³⁰

In traditional Maori society, there existed a category of game called *kai*.¹³¹ *Kai* (usually translated as food) referred to games that were 'food for the mind', encompassing imitative skill-based games and puzzle games.

It was a common belief that knowledge was stored in the stomach, hence the use of the term kai.¹³² Brown believes this class of game required abstract

<u>BesAstro.html</u> (accessed December 5, 2013). For example, *Tanerore*, the son of *Te Ra* (the sun) and *Hineraumati* (the summer maiden), is the personification of hot quivering air and so is credited with the invention of the first haka (war dance). The haka, a type of challenge to an enemy group, is performed as a competitive sport today.

cognitive ability and intelligence, ¹³³ such as the skills described by Marsden: "quick conception, retentive memory and great reflection and observation." ¹³⁴

One example is the strategy game *Mu Torere*, a draughts-style boardgame using pegs and a star-shaped base (see figure 9).¹³⁵

According to Navarro, the game seems easy but is very difficult to win (a draw is the usual result), and there were no Pakeha¹³⁶ winners of Mu Torere until 1850.¹³⁷

In Murray's view, "...cultural evolution requires not only creative invention but also, and just as importantly, faithful social transmission". Within a mimetic culture game play is one means of transmitting such knowledge. 139

The *Hutu and Pare* legend emphasises skill at the game of darts as well as ingenuity (in creating a means of escape via a catapault game) as traits to emulate.

Murray describes games' formal structures and their rule systems as cultural ratchets. ¹⁴⁰ Within a Maori context, it is clear that games and their associated legends have an educational function, such as fighting skill games, which teach

¹²⁹ Brown, Nga Taonga Takaro, 13.

¹³⁰ Orbell, The Illustrated Encyclopaedia, 134-135.

¹³¹ Brown, Nga Taonga Takaro, 13. Also known as Tupea.

¹³² Orbell, *The Illustrated Encyclopaedia*, 248. Sacred stones were sometimes swallowed after memory committal sessions to help seal knowledge in the stomach area.

¹³³ Brown, Nga Taonga Takaro, 13.

³⁴ Marsden, in Brown, Nga Taonga Takaro, 14.

¹³⁵ Brown, *Nga Taonga Takaro*, 26. Traditional Maori games have undergone a revival in recent years, including *Mu Torere* and *Ki-o-rahi* (a type of indigenous ball sport).

¹³⁶ A.W. Reed and Buddy Mikaere, *Taonga Tuku Iho: An Illustrated Encyclopedia of Traditional Maori Life* (Auckland: New Holland, 2002), 73. Apocryphally, Tamihana Te Waharoa (a Ngati Haua chief) challenged Governor Grey to play *Mu Torere* with all New Zealand as the prize, which Grey declined.

¹³⁷ A. Navarro, The 10 Best Games in the World (London: Thames and Hudson, 2011).

¹³⁸ Janet H. Murray, "Toward a Cultural Theory of Gaming: Digital Games and the Co-Evolution of Media, Mind, and Culture," *Popular Communication* 4, no. 3 (2006): 196.

¹³⁹ Ibid.

¹⁴⁰ Ibid.

MAORI GAME PRINCIPLES 1. A strong sense of narrative association via myths and legends. 2. A concern for intellectual challenge via interactive puzzles purposes. 3. The use of games for educational purposes.

Figure 10. Maori game principles used in the game portion of Otea

grace and physicality, and string, spinning-top games and the aforementioned *Mu Torere*, which develop mental and manual dexterity.¹⁴¹

From my research into traditional Maori game concepts, I derived three principles that inform the digital game portion of *Otea*, shown in figure 10.

2.8.2 Games: Interactivity, Narrative and Non-linearity

One of the biggest issues in modern computer-based game theory is the place of story. This argument might be viewed as ludology vs narratology (the study of games and narrative, respectively). The ludic view of a game as "…a goal-directed and competitive activity conducted within a framework of agreed rules" contrasts with the narratological conception of games as another form of storytelling media.¹⁴³

As Manovich asserts, "...interactive narrative remains a holy grail for new media." ¹⁴⁴ This is because games and stories operate very differently – though they share common elements. Games are simulations whereas stories or narratives are representations. ¹⁴⁵

Narratives have two components: story (the content) and telling (the form). 146 Games deliver experiences, 147 but it's only when experiences are shared (told) that they become stories. Games can have story elements grafted onto them 148 (the *Otea* game does this using story throughout as entry and exit points), can imply story through environmental design 149 or using game space evoke narrative associations. 150

Anecdotal observation of my own daughter's ability¹⁵¹ to tell stories, whilst simultaneously playing and experiencing them, demonstrates for me, as a parent and as a design practitioner, that children are not bound by the limitations of academic definitions.¹⁵²

¹⁴¹ Reed and Mikaere, Taonga Tuku Iho, 73.

¹⁴² Craig Lindley, "Game Taxonomies: A High Level Framework for Game Analysis and Design," *Gamasutra: The Art and Business of Making Games*, October 3, 2003. http://www.gamasutra.com/view/feature/131205/game_taxonomies-a-high-level_php (accessed December 12, 2013).

¹⁴³ Espen Aarseth, "Genre Trouble: Narrativism and the Art of Simulation," in *First Person: New Media as Story, Performance, and Game*, eds. Noah Wardrup-Fruin and Pat Harrigan (Cambridge, MA: MIT Press, 2004), 45.

¹⁴⁴ Lev Manovich, quoted in Gonzalo Frasca, "Simulation vs Narrative," in *The Video Game Theory Reader*, eds. Mark J.P. Wolf and Bernard Perron (New York: Routledge, 2003), 222.

¹⁴⁵ Gonzalo Frasca, "Simulation vs Narrative," 221.

¹⁴⁶ M.J. Porter et al., "Re(de)fining Narrative Events: Examining Television Narrative Structure," *Journal of Popular Film and Television* 30, no. 1 (Spring 2002): 23.

¹⁴⁷ Jesse Schell, The Art of Game Design: A Book of Lenses (Burlington MA: Morgan Kaufmann, 2008), 10.

¹⁴⁸ Henry Jenkins, "Game Design in Narrative Architecture," in *First Person: New Media as Story Performance, and Game*, eds. Noah Wardrup-Fruin and Pat Harrigan (Cambridge, MA: MIT Press, 2004), 119.

¹⁴⁹ Jenkins, "Game Design in Narrative Architecture," 123.

¹⁵⁰ Michael Nitsche, Video Game Spaces: Image, Play and Structure in 3D Game Worlds (MIT Press: Massachusetts, 2008), 3.

¹⁵¹ She was five years old at the time.

¹⁵² Chris Crawford responds to Espen Aarseth's "Genre Trouble: Narrativism and the Art of Simulation", in *First Person: New Media as Story, Performance, and Game*, eds. Noah Wardrup-Fruin and Pat Harrigan (Cambridge, MA: MIT Press, 2004), 45. Crawford describes the similar example of a grandparent telling a child an old-fashioned, yet interactive bedtime story.

Poole notes that "...in Japan, videogames have strong aesthetic and commercial links with manga (comicbooks) and anime (animated cartoon films)." ¹⁵³ This is replicated in France, where due to the longevity and esteem of comic strips, computer games are accepted "as a natural part of their national culture and media industry." ¹⁵⁴

In Jenkins' view,

"...games fit within a much older tradition of spatial stories, which have often taken the form of hero's odysseys, quest myths, or travel narratives." 155

One role of any computer-based game is to simulate an experience; in my game it is to create empathy for the protagonists' quest through participation.

Many videogames invoke mythic thinking "...by placing the action within a fantasy domain characterised by animism and supernatural mythical figures." ¹⁵⁶ Otea is situated exactly within this kind of story-game space.

Non-linearity means providing choices (or pathways) for the player.¹⁵⁷ The game designer's role is to create the 'feeling of freedom' even if illusory,¹⁵⁸ because within a finite game such as *Otea*, even non-linear pathways¹⁵⁹ still

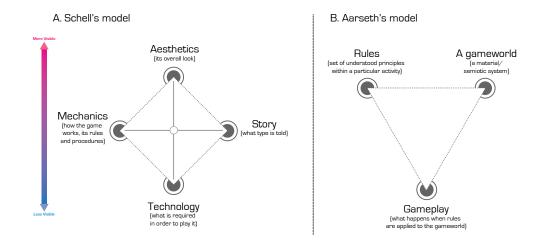


Figure 11. Schell's model compared to model adapted from Aarseth's definitions.

have a start and end point. ¹⁶⁰ The inclusion of narrative structure automatically demands a conclusion, as opposed to open-ended play of simulation based games such as *Sim City* ¹⁶¹ or *The Sims*. ¹⁶²

According to Jesse Schell, there are four elements to game design. ¹⁶³ Figure 11 compares these with Espen Aarseth's model. ¹⁶⁴

In Aarseth's model, story as a distinct element is missing. Despite this absence, there is still some common ground between these two systems. Celia Pearce

¹⁵³ Steven Poole, "Character Forming," in *Game On: The History and Culture of Videogames*, ed. Lucien King (London: Laurence King, 2008), 78.

¹⁵⁴ Andreas Lang, "Report from the Pal Zone," in *Game On: The History and Culture of Videogames*, ed. Lucien King (London: Laurence King, 2008), 53.

¹⁵⁵ Jenkins, "Game Design in Narrative Architecture," 122.

¹⁵⁶ Murray, "Toward a Cultural Theory," 195.

¹⁵⁷ Richard Rouse III, "Game Design - Theory And Practice: The Elements of Gameplay," *Gamasutra*, June 27, 2001, http://www.gamasutra.com/view/feature/131472/game_design_theory_and_practice_.php?page=2 (accessed May 24, 2013).

¹⁵⁸ Schell, The Art of Game Design, 284.

¹⁵⁹ Jenkins, "Game Design in Narrative Architecture," 119. Sometimes referred to as 'choose-your-own adventure'.

¹⁶⁰ Schell, The Art of Game Design, 267.

¹⁶¹ Emma McRae, ed., Game Masters: The Exhibition (Wellington: Te Papa Press, 2012), 78.

¹⁶² J. C. Herz, "Gaming the System: Multi-player Worlds Online," in *Game On: The History and Culture of Videogames* (London: Laurence King Publishing, 2008), 90.

¹⁶³ Schell, The Art of Game Design, 41.

¹⁶⁴ Aarseth, "Genre Trouble", 47.

C. Pearce's model

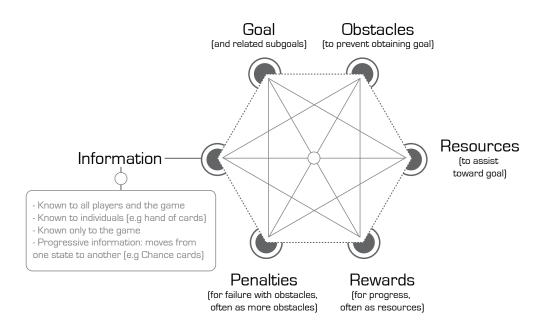


Figure 12. Model adapted from Pearce's game definitions

believes any game is "a structured framework for spontaneous play" ¹⁶⁵ using six criteria that again overlap with models A and B (adapted in figure 12).

Because story is such a vital part of my motion comic and e-comic, and is also one of the Maori game principles described in section 2.8, I have applied Schell's model to *Otea's* game component (detailed further in section 4.3).

Figure 13. Displaying two complementary systems

2.9 Summary

The two modes, Western and Maori, are essentially working in creative synergy to provide guiding principles that frame the project, but also supporting areas where they stand alone (see figure 13).

TIKANGA MAORI TRANSMEDIA Remix & Remixability Whakapapa Play Matauranga Comics (Maori Lens Games (Maori Lens) E-comic: Interactive Motion Comic Game STORYTELLING Original vs Retelling; Fantasy Genre; Quest Narrative

¹⁶⁵ Celia Pearce, "Story as PlaySpace," in *Game On: The History and Culture of Videogames*, ed. Lucien King (London: Laurence King, 2008), 112.

03. RESEARCH METHODS

Mauri tu, mauri ora, mauri noho, mauri mate. 166

3.1 Heuristic Inquiry, Rangahau Maori and Active Documentation.

Heuristics uses qualitative approaches to creative problem-solving rather than formulae. Tacit knowledge is a feature of heuristic inquiry. The term tacit knowledge was coined by Michael Polyani, "a chemist turned philosopher of science" 169 to refer to hidden experience that invisibly informs intuitive decisions.

Tacit knowledge can be defined as that which cannot be readily expressed and is often contrasted with explicit or propositional knowledge.¹⁷⁰ Between these two opposites exists a theoretical bridge of implicit knowledge.¹⁷¹ It is important that this bridge is described as theoretical, because according to T.D Wilson, tacit knowledge has sometimes mistakenly been described as having the possibility of moving toward an expressible state, but by its very definition it cannot be 'captured', only revealed through demonstration.¹⁷²

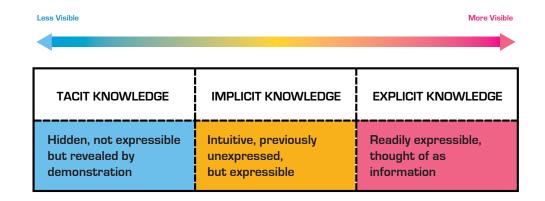


Figure 14. A finished creative work is the demonstration of all three knowledge types

Tacit knowledge remains inexpressible though its influence invisibly informs creative decision-making toward a final outcome, and this bridging role is fulfilled by implicit knowledge which Wilson describes as previously unexpressed but nonetheless expressible knowledge (see figure 14).

At the heart of implicit knowledge sits intuition or instinct, which involves making internal inferences to arrive at creative decisions.¹⁷³ Screenwriter William Goldman describes the process of making unforeseen connections between story material as completely instinctive, without the aid of logic.¹⁷⁴

Since heuristics relies on "deeply constituted experience, reflective search, sensitive overview and discovery," ¹⁷⁵ this methodology has much in common with the intuitive connection-making approach to my Honours project that

¹⁶⁶ Barlow, *Tikanga Whakaaro*, 30. Proverb: 'The life force is established, the life force lives, the life force is inert, the life force dies.'

¹⁶⁷ Welby Ings, "Managing Heuristics as a Method of Inquiry in Autobiographical Graphic Design Theses," *iJade* 30, no. 2 (2011): 227.

¹⁶⁸ Ings, "Managing Heuristics," 228.

¹⁶⁹ T.D. Wilson, "The Nonsense of Knowledge Management," *Information Research* 8, no. 1 (October 2002), under "Tacit Knowledge," http://informationr.net/ir/8-1/paper144.html (accessed June 25, 2013).

London School of Economics, "How Well Do 'Facts' Travel: About the Project," LSE Economic History, March 7, 2011. http://www2.lse.ac.uk/economicHistory/Research/facts/AboutTheProject.aspx (accessed May 13, 2013).

¹⁷¹ Clark Moustakas, *Heuristic Research: Design, Methodology, and Application* (Newbury Park: Sage Publications, 1990), 23.

¹⁷² Wilson, "The Nonsense of 'Knowledge Management."

¹⁷³ Moustakas, Heuristic Research, 23.

¹⁷⁴ William Goldman, Which Lie Did I Tell? More Adventures in the Screen Trade (London: Bloomsbury Publishing, 2000), 281.

¹⁷⁵ Ings, "Managing Heuristics," 227.

Whakapapa (Tacit & Explicit Knowledge Frameworks) is recognised as: 1. the 2. representing 3. connecting 4. a way of linking 5. a means to go backbone of the growth of all things, animate knowledge to its forward drawing Māori society knowledge & inanimate original source from the past

Figure 15. Five key ideas related to whakapapa, adapted from Lilley's frameworks.

hinged very much on accidental discovery¹⁷⁶ and chance juxtaposition.¹⁷⁷

Given my use of Maori principles and lenses as cultural frameworks, it is also important and appropriate to locate this project inside a Maori research approach or *rangahau Maori*. "*Rangahau* [...] *represents a Māori determined engagement with research*," ¹⁷⁸ whereby Maori employ culturally-meaningful models. Helpfully, whakapapa (already employed as a thematic linking principle) is discussed by Linda Smith as one possible kaupapa¹⁷⁹ or Māori model available to Maori researchers. ¹⁸⁰ Whakapapa is described by Dr Spencer Lilley as being both tacit and explicit knowledge. ¹⁸¹ Lilley expounds five key

July 12, 2013).

Whakapapa principles employed:

- 1. Whakapapa is an underpinning worldview, that tacitly informs how a Maori artist approaches work and sees the many components of a creative project (including research).
- 2. All postgraduate research is predicated on creating new areas of knowledge.
- Usefully, whakapapa as a Maori concept is not limited to familial human relationships. Three related artistic ideas gave rise to this new story in a clear parent-child link.
- 4. It provides an anchor of authenticity, as my original story has ancestral ties to Maori mythology.
- 5. My remix methodology uses past experience, and past work to make new work. It taps into another key Maori worldview of walking backwards into the future looking down the line of the past, summed up in the phrase 'ki mua, ki muri the past is the future'.

Figure 16. Whakapapa creatively employed.

ideas related to whakapapa located inside these frameworks, as explained in figure 15.

Barlow's summation that "...whakapapa is a basis for the organization of knowledge in respect of the creation and development of all things" 182 endorses Lilley's five principles. I explore how this takes shape in my project in figure 16.

How might whakapapa serve as a creative model? In the Maori cosmology, the universe (the first stage of whakapapa) begins with *Te Kore*, sometimes translated as The Nothing, but rather than a negative state, it is one in which unlimited potential exists.¹⁸³ *Te Kore* is followed by *Te Po* (the night). Out of

¹⁷⁶ Waipara, "Recollect," 18.

¹⁷⁷ Ibid., 27.

¹⁷⁸ Rautaki Ltd and Ngā Pae o te Māramatanga, "Methodology," Rangahau, http://www.rangahau.co.nz/ (accessed July 12, 2013).

 ¹⁷⁹ Translates in this sense as purpose or concept. John C. Moorfield, ed., *Te Aka Online Maori Dictionary* (Auckland: AUT/Pearson, 2003-2014) http://www.maoridictionary.co.nz/word/2439 (accessed June 5, 2013).
 180 Linda Smith, "Methodology," Ngā Pae o te Māramatanga, on Rangahau website, video file, 0:43, filmed
 November 2006, http://www.rangahau.co.nz/video.php?videoname=linda/methodology_linda&title=linda (accessed

¹⁸¹ Spencer Lilley, "Introducing 'Awareness of Indigenous Knowledge Paradigms': IFLA Core Elements," (paper presented at the IFLA Presidential Meeting: Indigenous Knowledges: Local Priorities, Global Contexts, Vancouver,

BC, April 12-14, 2012), 7.

¹⁸² Barlow, Tikanga Whakaaro, 173

¹⁸³ Barlow, *Tikanga Whakaaro*, 55. Variations exist from iwi to iwi, but the basic structure remains fairly consistent.

this is born the ultimate creative act, Te Ao Marama (the world of light).¹⁸⁴

Preceding Te Ao Marama is a transitional state, Te Wheiao (see figure 17).185

As Barlow elucidates, "...in nearly every facet of life there exist various conditions of wheiao, both on earth and throughout the universe." ¹⁸⁶ Wheiao is used to describe moving through transitional phases, such as birth, and includes education. "Even with human learning, we pass from a state of ignorance to one of enlightenment or understanding." ¹⁸⁷

This Maori creation model could possibly serve as a creative metaphor, whereby the blank page holds no terror, only possibility, as "...artists employ unclear moments for the potential held by these periods of not knowing to bring to consciousness something new." ¹⁸⁸ In some ways it aligns quite naturally alongside the tacit-implicit-explicit knowledge model (see figure 18, overleaf). Charles Royal suggests that Matauranga Maori, ¹⁸⁹ already in use as a framework (see section 2.3), can be seen as including a variety of knowledge approaches including tacit, implicit, and codified (explicit). ¹⁹⁰

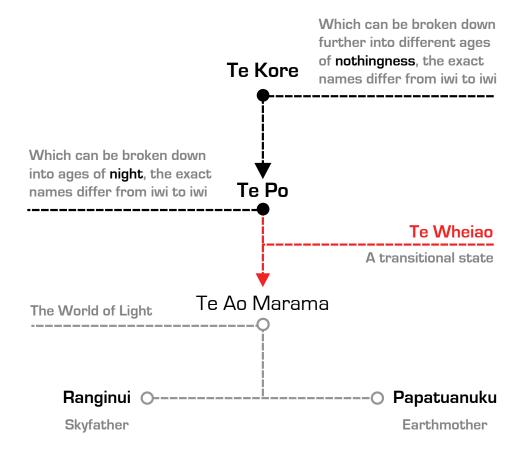


Figure 17. A Maori view of cosmological creation.

Te Ahukaramū Charles Royal, "Te Whare Tapere: Towards a Model for Māori and/or Tribal Theatre," (lecture, Stout Centre, Victoria University of Wellington, May 14, 1997), 5. http://www.orotokare.org.nz/Default.aspx?page=2668 (accessed September 2, 2013).

¹⁸⁵ Ryan translates *wheiao*, or *whaiao* as daylight. Ryan, *The Reed Dictionary*, 37. It is often coupled in oratory with *te ao mārama*, the world of light: "Tihei Mauri Ora ki te wheiao, ki te ao marama."

¹⁸⁶ Barlow, Tikanga Whakaaro, 184.

¹⁸⁷ Barlow, Tikanga Whakaaro, 185.

¹⁸⁸ Mary Jane Jacob, "Experience as Thinking," in *Art as a Thinking Process*, eds. Mara Ambrožic` and Angela Vettese (Berlin: Sternberg Press, 2013), 102.

¹⁸⁹ Te Papa Tongarewa Museum of New Zealand, *Mātauranga Māori and Museum Practice: A Discussion*, prepared for Te Papa National Services - Te Paerangi, by Charles Royal, version 4, January 2007, 3. http://www.mkta.co.nz/assets/mmmuseumpracticeversion4.pdf

¹⁹⁰ Ibid., 19. Interestingly, Royal includes religious knowledge on this list, which, if dealing with revelation, is a different category of knowledge altogether.

The Creative Process

Idea conception	Working Process	Finished Project
Mai i Te Kore me Te Po	ki Te Wheiao	ki Te Ao Marama
Tacit knowledge	Implicit knowledge	Explicit knowledge

Figure 18. Alignment of different models

In my design process, I imagine employing tacit, implicit and explicit knowledge approaches in problem solving. For example, in *Recollect*,¹⁹¹ I developed a new digital remix painting technique that uses existing digital source material as the colouring base for completely different artwork. Through this prior experimentation, I inferred that the technique could be applied successfully in this current project, *Otea*, in a clear whakapapa link from one project to the other. This suggests it might be a rule (or at the very least a repeatable technique), which moves it towards explicit or propositional knowledge, meaning it can be learned and applied by someone else.

A concrete example (figure 19), compares the colours for page 8 with page 7. Page 8 was completed ahead of page 7, as the first panel was needed as part of the introduction to the game portion of the project.

Once page 8 was completed, and with its various colour layers preserved, I

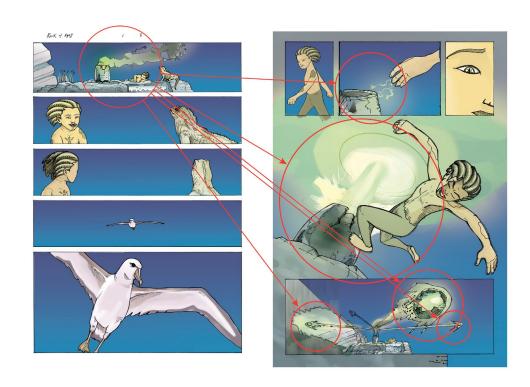


Figure 19. Propositional knowledge research example

could adapt and remix the colours for the panels of page 7. Not only does this introduce random, serendipitous, and therefore naturalistic tones, but it also provides colour consistency.

In another example, intuition (implicit knowledge) tells me something about a page's construction (such as composition, physical proportions, continuity, storytelling logic, narrative drama) is not quite working, but I'm not always able to immediately work out why. I must approach it from several directions, making guesses at solutions until it is resolved. Sometimes this involves leaving

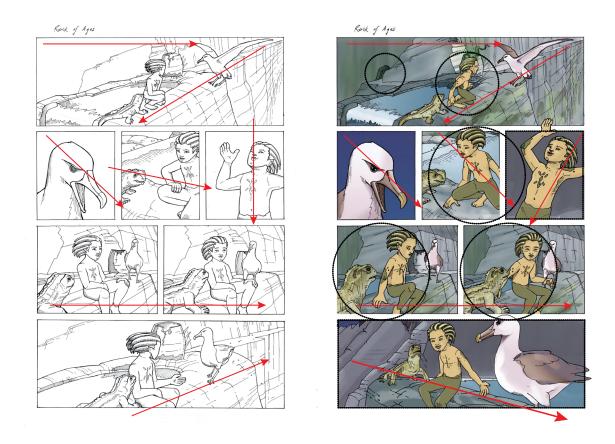


Figure 20. Implicit knowledge research before and after example

it alone altogether, and, as for Archimedes, the answer arrives in a 'Eureka' moment.¹⁹²

Figure 20 shows a 'before' and 'after' example with the red arrows indicating how the panels might lead the reader's eye around the page in both cases. The 'before' example hung on a notice board above my computer for some months

before I was able to see what needed to be fixed. The black dotted circles (just some parts) and squares (entire panels) show artwork that has been altered to improve the overall page layout, elements such as proportions, body language, etc.

The last panel on the page was the final item to be altered and was only resolved when I researched a comic page layout principle (see section 4.3

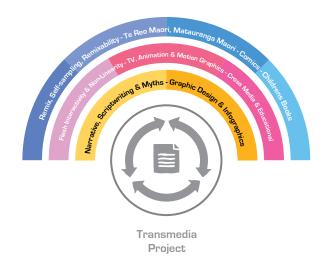


Figure 21. Convergence of my overt interests and tacit experience

for more detail). It allowed me to recompose the view and angle. The body positions were also updated as indicated by the red arrows, according to this principle, to better lead the eye around.

My personal, professional and cultural experience exist subconsciously, a collection of tacit knowledge that would subliminally influence the shape of this current project, because "...art crystallises experience" ¹⁹³ (see figure 21). Given the heuristic nature of my research, it seems pertinent to outline my experience, detailed as a narrative account in Appendix B.

Trial and error, another characteristic of heuristic inquiry, is documented more thoroughly in section 4. Part of this trial and error approach entails documenting possible ideas and avenues. Active documentation, described by Nancy de Freitas as "...a planned and strategic method of producing tangible

Figure 22. Visual diary 2013 image showing concepts alongside finished ideas

visual, textual documentation of work in progress" ¹⁹⁴, serves as an ongoing process of recording, appraisal and re-appraisal - as it did for Recollect. ¹⁹⁵ It assists with organising one's thoughts, reflections and working processes to communicate more clearly the context surrounding the work. de Freitas stresses that "...the most reliable source of [...] information is the artist/designer whose own understanding is a valuable source of contextual information." ¹⁹⁶

Documenting the way a work changes over time is also important, and in this regard active documentation suits my approach to combined practice and

The field grant and the first the fi

Nancy de Freitas, "Towards a Definition of Studio Documentation: Working Tool and Transparent Record," Working Papers in Art and Design 2 (2002), http://sitem.herts.ac.uk/artdes_research/papers/wpades/vol2/freitasfull.html (accessed April 2, 2012).

¹⁹⁵ Waipara, "Recollect," 18.

¹⁹⁶ Nancy de Freitas, "Activating a Research Context in Art and Design Practice," *International Journal for the Scholarship of Teaching and Learning* 1, no. 2 (July 2007): 2.

¹⁹³ Mary Jane Jacob, "Experience as Thinking," 103.

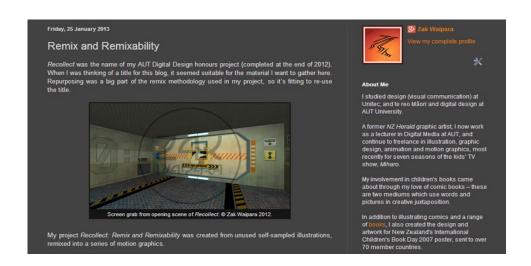


Figure 23. Example post on my blog, Recollect

research,¹⁹⁷ because even when not actively engaged in postgraduate research, I sketch and record my ideas constantly (see figure 22, previous page). It is a very natural and essential process for me – and I return to examine my notes for creative impetus. In addition, I have established an online weblog to record some ideas relevant to my research (see figure 23).¹⁹⁸

On the blog itself, I describe it as 'a place to reflect on my creative practice, viewed through an academic lens'. This is an informal way of presenting and preparing material that may have bearing on my research.¹⁹⁹

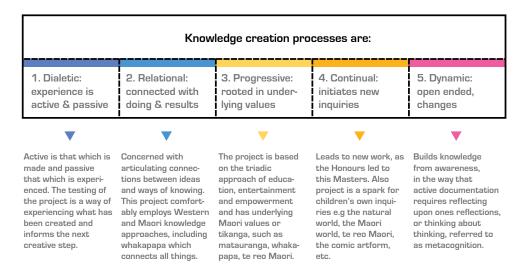


Figure 24. A knowledge as experience model, adapted from Jacob's definitions

Finally, all of these approaches can be synthesised as shown in figure 24, which is an adaption of the knowledge creation process categories identified by Mary John Jacob.²⁰⁰

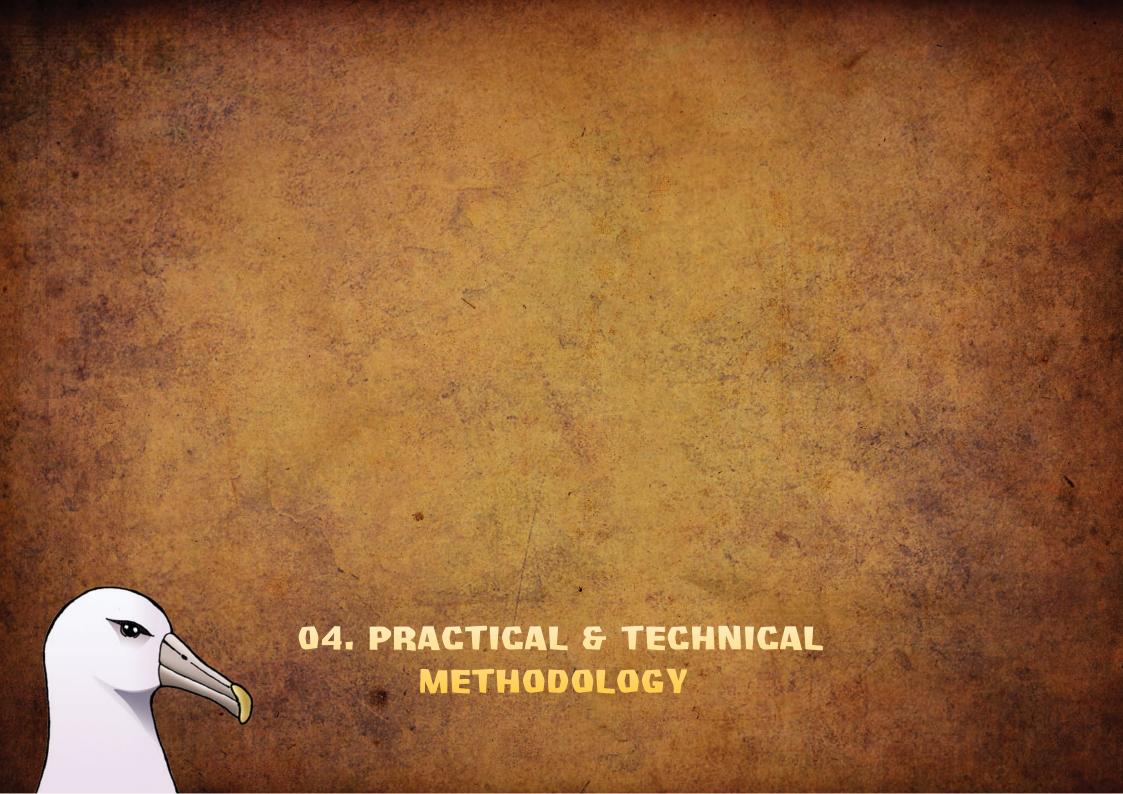
¹⁹⁷ As de Freitas explains, "...analysis of the iterative processes [...] in the development of ideas can provide valuable information both for making decisions in studio and for explanation and justification of [the] research." de Freitas, "Activating a Research Context," 3.

¹⁹⁸ The blog can be accessed at the following address: http://zakwaipara.blogspot.co.nz/

¹⁹⁹ I use the term informal because it is not an actual academic paper, but the blog posts are more organised and

structured than the notes scrawled in my visual diary.

²⁰⁰ Mary John Jacob, "Experience as Thinking", 100.



Hoca to waka!201

4.1 Style

My own illustration style, used across all three media, is a hybrid that evolved over time from absorbing a number of visual styles (see figure 25).

As a child, this involved reading American superhero comics, a mostly representational style employing "...bold figurative art and strong colours." ²⁰² As a young adult I was influenced by Japanese anime, and eventually Japanese manga, ²⁰³ which emphasises mood, slower pacing, and sometimes exaggeration of facial characteristics. ²⁰⁴

My main exposure to Maori illustration aesthetics came from my father's artwork²⁰⁵ which always graced the walls of our home, creating a cultural environment, and from reading various illustrated Maori legends.²⁰⁶

This project borrows motifs from the Archaic Maori rock art period, and I created all new designs drawn from this aesthetic (see figure 26 and section 2.7). I based the tekoteko figure that appears in the game on a proto-Maori carved style, though the more developed 'classic' Maori artform also appears.²⁰⁷ An



Figure 25. Left to right: two of my own illustrations, influenced by different comic art styles; the cover of *Footsteps of the Gods*, illustrated by my father, Manawa-ote-Rangi Waipara



Figure 26. Examples of Maori forms used in the Otea project

²⁰¹ Idiom, exhorting someone to 'go for it'. Literally 'paddle your canoe!'.

²⁰² Roger Sabin, Comics, Comix and Graphic Novels: A History of Comic Art (London: Phaedon Press, 1996), 57.

²⁰³ Scott McCloud calls this the metabolization of Manga, in Kazu Kibuishi, ed., *Flight* (New York: Villard Books, 2007), 203.

²⁰⁴ Sabin, Comics, Comix and Graphic Novels, 228.

²⁰⁵ Some of this work was included as illustrations in book form. Hana Hiraina Erlbeck, *Footsteps of the Gods* (Auckland: Reed Publishing, 1998).

These included the Maui legends written and illustrated by Peter Gossage (a Pakeha artist working in a Maori idiom). Peter Gossage, *How Maui Slowed the Sun: Te Hopu a Maaui i a Te Raa* (Auckland: Landsdowne Press, 1982).

Paama-Pengally, *Maori Art and Design*, 17.

infographic box I designed to act as a digital waka huia (box that holds taonga or treasures), takes classic Maori forms and translates them through geometric shapes. Furthermore, my industry experience (tacit knowledge) has given me confidence in adapting and using Maori motifs and forms (see Appendix B).

4.2 Motion Comic

The remix process that I developed in *Recollect* served as a practical methodology (albeit applied slightly differently here) to transform my static print material into a motion comic.

Alex Maleev is one comic artist whose motion comics work I investigated to see how adaptation from his original printed comics to animated form occurred, specifically the design and animation choices that affected overall storytelling changes.²⁰⁸

In repurposing my print material I changed existing comic panels to an approximate widescreen aspect ratio (16 x 9); separated all backgrounds and foregrounds; layered the characters for animation; and re-drew any missing details beyond the edges of the original frame (see examples in figures 27 and 28). Panels that share backgrounds were combined into a common digital file.

Maleev describes a similar process of drawing elements in layers for animation, despite his project being devised for a motion comic from the outset, emphasising the huge amount of work²¹⁰ involved in this future-



Figure 27. Left to right: original; missing details in pencil; improved in Illustrator; traced and inked for final image

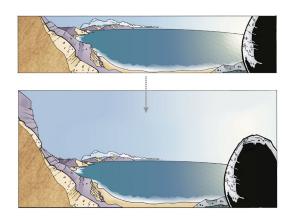


Figure 28. Comparison of panels from the comic prologue (top) and adapted motion comic (bottom)

proofing process.²¹¹ Because my animation process tends to be intuitive I also prepared the material accordingly by ensuring anything that might be moved

²⁰⁸ Alex Maleev, afterword to *Spider-Woman: Agent of S.W.O.R.D.*, by Brian Michael Bendis and Alex Maleev (New York: Marvel, 2010), 172.

²⁰⁹ As demonstrated in Alex Maleev, "Marvel Hotline: Alex Maleev & SPIDER-WOMAN," Marvel website, video file, 2:07, http://marvel.com/videos/watch/891/marvel_hotline_alex_maleev_spider-woman (accessed June 1, 2013). 210 Ibid.

²¹¹ Alex Maleev, in Marvel Entertainment, "Spider-Woman Motion Comic: Behind the Scenes," YouTube video file, 2:20, http://www.youtube.com/watch?v=7iuKm6FLIwg (accessed December 6, 2013).

could be moved. My remix practice dictates that these design and animation choices were based on the material at hand.²¹²

The text of the prologue comic was reduced. Firstly for duration, as there was not enough on-screen time to hold the images for the original amount of text. The second reason was to avoid boring the audience.²¹³ Most of the script existed as narration, which operates against the usual film rules of 'show, don't tell'. ²¹⁴ However narration, or reading aloud, is still an important method of immersing young listeners in stories.²¹⁵

Oral storytelling is also a key feature of Maori cultural transmission,²¹⁶ so I retained this aspect. Thirdly, some time has passed since I first wrote the text, and my scriptwriting and editing instincts have changed somewhat, tending toward a 'less is more' approach.

A limitation of the motion comics form is that it requires a lot of work for a slight return in terms of animation – though this effort is made more sustainable with the inclusion of sound effects, music, narration and dialogue.

The finished animation is influenced by anime style motion²¹⁷ using pans, minimal facial movements, close-ups of faces, and the use of text as subtitles

(a translation of the Maori narration). Although I made an initial pass at translation myself, Erana Foster checked it and made corrections.²¹⁸

In Garson Yu's view, emotional connections within motion graphics are "... made by strategically integrating the visual with sound. The audio element is essential." ²¹⁹

I deliberately chose unconventional music not normally associated with the fantasy genre.²²⁰ Sourcing appropriate and consistent music across the media was a key part of branding the project (the music was re-used in the game). I found an artist Javier Suarez (Jahzzar) from FMA (Free Music Archive), who had created two appropriately and evocatively titled tracks, *First Rays* and *Rising Sun*, from the online album *Sunlight*.²²¹

His approach was "...to take the sound-image idea to the extreme [...] creating music from pictures." ²²² The music is classified in the FMA under the genres of pop, folk and indie-rock, but in my view it possesses a primal, stripped back quality, which suited the sense of isolation of the island, *Otea*.

²¹² Waipara, "Recollect", 16.

²¹³ I once had to read it aloud to an audience of school children.

Weaver, Comics for Films, 213. In this instance I was influenced by the actor Mako's narration style from the film Conan the Barbarian. Conan the Barbarian, directed by John Milius, Universal Pictures, 1982.

²¹⁵ Julie Faulkner, "Once Upon a Time: Reclaiming Storytelling in Schools," *The Conversation*, March 30, 2013 http://theconversation.com/once-upon-a-time-reclaiming-storytelling-in-schools-11019 (accessed May 21, 2013).

²¹⁶ Narration requires both good pronunciation and inflection.

²¹⁷ Such as that in *Sword Art Online*, an anime series I began watching last year while waiting for my Honours project to finish rendering. *Sword Art Online*, Aniplex, December 2012. http://www.crunchyroll.com/sword-art-online

²¹⁸ Lecturer, Te Reo Maori at Te Ara Poutama, AUT.

²¹⁹ Garson Yu, Motion by Design, eds. Spencer Drate and Judith Salavetz (London: Laurence King, 2006), 21.

As Ennio Morricone did by scoring Western films to electric guitar. Hans Zimmer, "Hans Zimmer on Ennio Morricone's score for Once Upon a Time in the West," *The Telegraph*, July 19, 2012. http://www.telegraph.co.uk/culture/film/classic-movies/9413230/Hans-Zimmer-on-Ennio-Morricones-score-for-Once-Upon-a-Time-in-the-West.html

²²¹ Suarez describes the album: "Sunlight showed melancholy but upbeat melodies, guitars and programming closer to pop music and arrangements created from pictures." Javier Suarez, "Jahzzar: Moonxine," Free Music Archive website, http://freemusicarchive.org/music/Jahzzar/Moonxine/ (accessed October 10, 2013).

²²² Javier Suarez, "Jahzzar: Sunlight," Free Music Archive website, http://freemusicarchive.org/music/Jahzzar/Sunlight/ (accessed October 9, 2013).

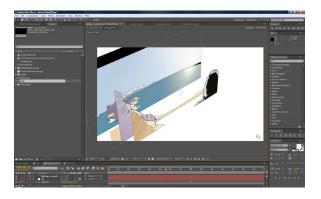


Figure 29. After Effects interface showing motion comic artwork in layers, ready for animation.

4.3 E-comic

The first step in creating the e-comic was finalising the script, including overall length, so that it ended at an appropriate place to lead into other parts of the project, in accordance with principles of transmedia.²²³ This culminated in a ten page comic that covers the first act of a larger intended story, before it transitions into a game (see Appendix A: Adaptation of Story to Game).

All design and visual communication employs a principle known as the hierarchy of information. The most important items are signposted, using such qualities as size, location, colour and contrast, to indicate reading order and visual salience.²²⁴

This technique is also shared by the language of comics, which uses sequential

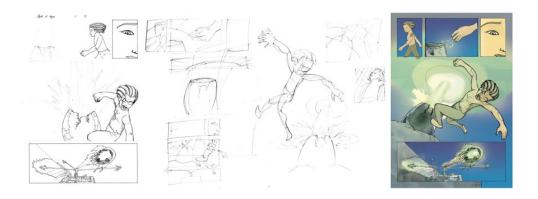


Figure 30. Layout improvements.

panels to break the story down into parts, and composition (and artwork inside panels) to lead the eye around the page in the correct sequence.

As Durwin points out,

"...word balloons are a very obvious way to draw the reader's eye from panel to panel. The figures themselves can also be used to direct the eye. If done discretely, the choreography of characters' actions can be effective in creating flow for a story." ²²⁵

Figure 30 shows how I redrew and rearranged panels using this principle; the process is described in more detail in Appendix D.

I developed a new pre-visualisation stage, using rough sketches, photos and even 3D models, to test out page compositions via computer before committing

²²³ Phillips, *A Creators Guide to Transmedia Storytelling*, 15. Jenkins, in Phillips, uses the term 'coordinated' to describe this deliberate and systematic dispersal of story across media.

²²⁴ Jon Krasner, Motion Graphic Design: Applied History and Aesthestics (Burlington, MA: Elsevier, 2008), 230.

²²⁵ Durwan S. Talon, *Panel Discussions: Design in Sequential Art Storytelling* (Raleigh: UC TwoMorrows Publishing, 2002), 98.



Figure 31. Previsualisation panel using a 3D model, pencil sketch and a photo

to them (see figure 31).²²⁶ The term 'pre-visualisation', as well as the practice, is borrowed from the animation pipeline²²⁷ but I am applying it here to comics, all part of the language of remixability.

Following this stage, I completed all the pencil-and-ink artwork, incorporating anime influences such as interesting camera angles. Using my remix technique, I then coloured the pages approximating a painted-background approach as used in manga.²²⁸ Every panel required the same amount of attention as a

detailed full page in a children's book, making the workload intense.

4.4 Game

The Maori game principles (described in 2.8.1), combined with Schell's elements of game design (2.8.2), form the parameters of this portion of the project.

Mechanics: The object of the game is to quest for the lost mauri fragments, naturally mirroring the quest narrative of the main storyline. The game expands the transmedia story-world the most, as it has more room to include items and characters not directly referenced in the main storyline.

There is no specific order in which tasks must be undertaken. I designed a flowchart (see figure 32, overleaf) to gauge all the pathways, including where to incorporate mini games and puzzles such as mazes and a riddle challenge. The maze is a feature of many myths,²²⁹ while the riddle often appears in fables. These fit with the first Maori game principle (see section 2.8.1): *Intellectual challenge via interactive puzzles*. In fact, because the game is meant to be experiential, new ways to logically increase the interactivity kept suggesting themselves, which expanded the amount of work needed.

Story: I chose a quest style adventure for the game type, as not only is it one of the story-types best suited to a gameworld, but also adheres to the strong comic-based storytelling thread that runs through my transmedia project. This fits with the second Maori game principle: *A strong sense of narrative association*.

²²⁶ My daughter provided the correct proportions for an upperbody shot of Kurutai raising his arms.

²²⁷ Gare Cline, "PREVISUALIZATION Part ONE: What is Previs?" Creative Cow website, http://library.creativecow.net/cline_gare/Previs_intro/1 (accessed March 3, 2013).

²²⁸ Jared Hodges and Lindsay Cibos, *Digital Manga Workshop: An Artist's Guide to Creating Manga Illustrations on Your Computer* (New York: Harper Design, 2005), 112.

²²⁹ Mary Henderson, Star Wars: The Magic of Myth (New York: Bantam Books, 1997), 54.

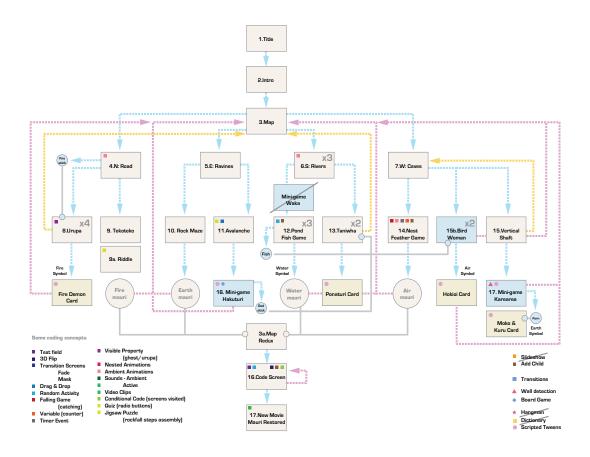


Figure 32. Game flowchart.

Multiple ancilliary characters appear throughout the game, directly addressing the player as an inclusive element, guiding the gameplay, or indirectly as antagonists or passive observers. Often these characters provide clues but also interesting information about the wider story-world (see figure 33, overleaf).

Aesthetics: The look of the game, built mostly using vector art in Illustrator or natively in Flash, is modelled very much on an interactive book approach.

The overall interface screen is designed for widescreen format, to link more strongly with the motion comic, and it incorporates repurposed comic art from the other media. The gaming screen itself is slightly inset within this, modelled after a comic panel. In addition it takes on some of the paraphernalia and language of comics, such as speech and thought balloons, narration, caption boxes, and info-boxes (as drop-down cards).



Figure 33. Examples of the range of characters in the game

A range of animation techniques were used to enliven the game, such as frame-by-frame, shape and motion tweens in Flash, forward-kinematic character and camera movement in After Effects, and many combinations of these techniques. The addition of sound in the form of both ambient and interactive sound effects proved to be engaging and enlivened the gameplay. My daughter even provided a screech for the Birdwoman character (see video clip in figure 34).

Technology: As Feldman notes, "The aim of any game is to get people to play it.



Figure 34. Birdwoman animation in game example [video] *Click to activate*

But a game does not have to be complex to generate a lot of attention..."²³⁰ Requiring only a computer and Adobe Flash Player, the point-and-click navigation,²³¹ which more closely resembles a page-turning book-style experience,²³² has been chosen to be understood easily by its young target audience (5-10 years).

Because the goal is subtle learning orientated play, a quiet and gentle way of unfolding the adventure allows a player to focus on the story details. This approach endorses the third Maori game principle: *Games for educational purposes*. I have programmed the game in Adobe Flash using ActionScript 3,

²³⁰ Luke Feldman, "Design a Flash-Based Videogame," Computer Arts Projects 121 (March 2009), 78.

²³¹ *The Walking Dead* and *The Wolf Among Us* video games use this point-and-click approach, and both are adapted from comics. Tina Amini, "Walking Dead Creators Take On Fairy Tales," Stuff.co.nz News website, September 18, 2012. http://www.stuff.co.nz/technology/games/9147715/Walking-Dead-creators-take-on-fairy-tales (accessed December 5, 2013).

²³² And so ties in more closely to the e-comic and by extension the motion comic.



Figure 35. Early game play test [video] Click to activate

and I had to test all ActionScript for functionality, and for general gameplay (on both Mac and PC).

Although assets can be made directly in Flash, in theory assets from Photoshop, Illustrator and even After Effects work equally well. Although in practice, sometimes animations made in After Effects didn't export smoothly into Flash, for example elements wouldn't render in the XFL format (which opens as a Flash file), and would have to be output as a SWF (which opens in Flash Player). But since the file would need further adjustment, such as adding code, I engineered a workaround by importing the SWF onto the Flash stage and creating a new Flash file in this fashion.

Because only mp3 sound files can be dynamically added via ActionScript, sound files sourced from Creative Commons sites were edited in Garageband

and Audacity into the mp3 format, and cut to the correct length to fit required scenes.

4.5 *Scope*

Otea was always planned as a practical investigation based upon contemporary research principles, such as those set out in section 4.6, and in this regard it is a landing point, not an ending. The media file formats were chosen deliberately to make them as ubiquitous and user friendly as possible (an .mov – quicktime file, a ..pdf – acrobat file, and a .swf – opens in flashplayer).

Given more time, resources, research and expertise, more development could have taken place to better integrate these three media so as to make the transitions between all three much more seamless. One obvious solution could have been a website, or self contained application using the map of *Otea* as a bridging interface that links the different components together. The potential would also exist for any number of spin off games and side activities such as 'easter eggs', treasure hunts, etc.

In addition, the motion comic currently has a Maori language voiceover and subtitles in English, but this feature could be expanded to include multiple language options. Users would then be able to choose different language settings based on a learning preference, and combine these settings in different ways - both to emphasise certain elements of any one language, and to assist with understanding and translation.



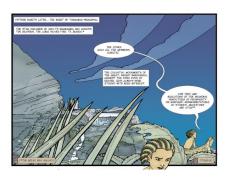




Figure 36. Images from all media using words and pictures

4.6 Transmedia Play

The three principles of learning via transmedia play, as described in section 2.2, are evaluated here:

1). Transmedia play can promote new approaches to reading. All three of my media use some form of written text, such as subtitles, speech balloons and instructions (see figure 36). Additionally, the comic styling of all three media can engage children visually by allowing access to story via pictures.²³³

"When images and words are paired together, a [...] transaction may be said to occur between the image, the words, and the reader." ²³⁴

Children take cues from pictures to assist in understanding text, and in a

2). Transmedia play can encourage learning via multiple entry points, because, as Weaver notes, the audience will absorb the story pieces "in an order that they decide from any number of external circumstances." ²³⁵

Although I have an ideal chronological progression for the media, they can be accessed in any order, depending on the user's interests.²³⁶ See figure 37, overleaf, for some possibilities.

Young imaginations are captured by story when reinforced across media, such as comics, cartoons and video games.²³⁷ Jenkins cites an important principle - that each type of media is chosen for its specific strengths and purpose:

transmedia context this is enhanced by the use of other sensory cues, such as audio.

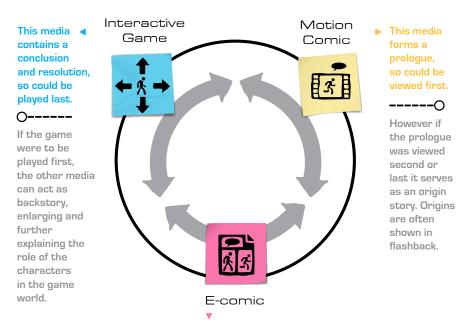
²³³ Rob Salkowitz, Comic-Con and the Business of Pop Culture: What the World's Wildest Trade Show Can Tell Us About the Future of Entertainment (New York: McGraw-Hill, 2012), 16.

²³⁴ D. Lapp, et al., "Graphic Novels: What Elementary Teachers Think About Their Instructional Value," *Journal Of Education* 192, no. 1 (2012): 23.

²³⁵ Weaver, Comics for Films, 34.

²³⁶ Because of this random order of media and point of entry, Christy Dena describes the importance of having the plot still make sense. Christy Dena, in Weaver, *Comics for Films*, 50.

²³⁷ Salkowitz, Comic-Con and the Business of Pop Culture, 16.



This media forms the first Act (or chapter) of an intended much larger story, so could be read second as its conclusion (a decision to undertake a quest) leads naturally into the game.

If this were read first it still sets out the role of the characters, so still leads into the game. If read last then it fills in the backstory of the other two. If the motion comic were to follow it, it would act as an origin for how the characters came to exist in the story.

Figure 37. Potential order of media access to tell the story of Otea

"In the ideal form of transmedia storytelling, each medium does what it does best – so that a story might be introduced in a film, expanded through television, novels, and comics, and its world might be explored and experienced through gameplay..." ²³⁸

Applied to my own project, the motion comic prologue contains filmic

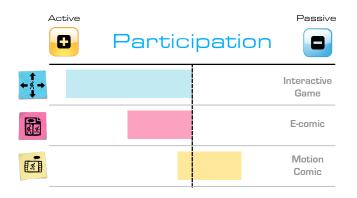


Figure 38. Participation index for each portion of the project

elements, such as motion, a soundtrack, and visual effects. Cinema is still incredibly immersive, if not necessarily participatory.²³⁹ The audience expectation is to watch and be told the story (see figure 38).

The e-comic contains items meant to be read, such as words and pictures, translations treated as infographics. Because these items can be re-read, it is possible to create denser layers of information. Comics narration also allows the reader to hear the character's voice.²⁴⁰ The reader controls the pace at which the text is read, and is more active than if it was a film.

The game allows users to explore the wider story-world, grants the player some control and choice via interactivity, and is therefore more participatory.

²³⁹ Frank Rose, in Weaver, Comics for Films, 213.

⁴⁰ Weaver, Comics for Films, 215.

²³⁸ Jenkins, Convergence Culture, 99.

"Video games offer a useful platform for independent learning and exploring and they offer attainable challenges and fun environments to investigate." ²⁴¹

In essence, a game is meant to be played, a film to be watched, and a book to be read. Each uses more or less active or passive levels of engagement – but designed with different purposes in mind.

3). Transmedia play involves exploration, experimentation and remix. The diverse use of media in my project encourages exploration across the media. The full story is gained only by accessing all three forms, while story engagement encourages children to take *Otea's* stories and characters away and retell and remix them.

This tendency to remix stories is actually a natural state of affairs for a child. Tyler Weaver recalls using action figures (from popular culture) as a child, to play, replay and remix stories.²⁴² My daughter does this with all the characters from stories she encounters, including Kurutai and Mokotawhito, who at one time were remixed by her into an Egyptian adventure.

In addition, upon seeing a page of unfinished artwork, my daughter asked about the scene, and immediately set about replicating it in her own fashion, including adding colour (see figure 39).

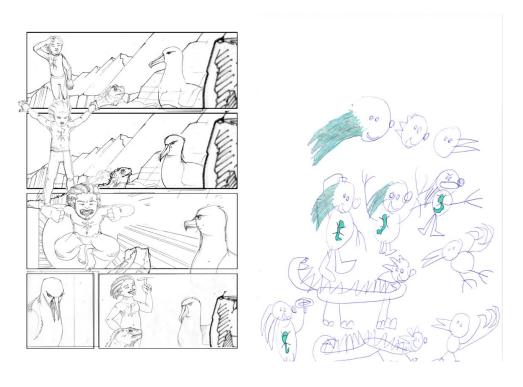


Figure 39. Rough page of the e-comic, and my daughter's remixed response

²⁴¹ Helen Stuckey, introduction to *Game On: The History and Culture of Videogames*, ed. Lucien King (London: Laurence King Publishing, 2008), 19.

²⁴² Weaver, Comics for Films, 157



05. CONTEMPLATIONS

Rapha te mea ngaro.243

5.1 Remixability revisited via transmedia

In discussing the language of remixability, Manovich noted that modularity wasn't essential, but it was desirable, as he imagined a "...cultural ecology where all kinds of cultural objects regardless of the medium or material are made from Lego-like building blocks." ²⁴⁴

Lego-block modularity still represents an ideal rather than a reality. As my Honours project revealed, simply having assets in digital form doesn't remove the labour required to facillitate moving them across software for re-use. But in this current Masters project, it does represent a new kind of production pipeline where assets are built for re-use as a kind of modular unit from the outset.

In addition to remixing previously published content, it is possible to create all new content in order to deliberately remix it across the different media. Therefore, building all of the parts of the pre-production stage concurrently allows a remix methodology to naturally ensue, and a transmedia project is one method of exploring remixability.

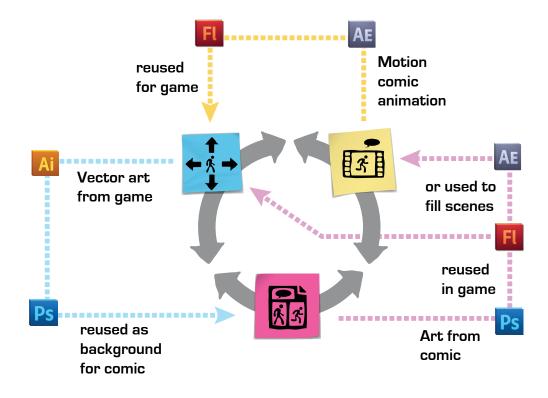


Figure 40. The back-and-forth workflow during creation of the *Otea* project

One example of this is retaining a character's whole body so that it can be moved across platforms, before editing it for its various uses. In other situations, vector backgrounds for the game form the basis of Photoshop background colour for the e-comic; faces drawn for the comic are reused as new positions for animation, or artwork is used to fill in missing pieces in the motion comic; After Effects animations made for the motion comic are exported to Flash to assist with narrative elements in the game.

²⁴³ Traditional proverb, meaning 'Search for the thing that is lost.' See, for example, King Tawhiao's use of this proverb, quoted by Joe Williams, in "Confessions of a Native Judge: Reflections on the Role of Transitional Justice in the Transformation of Indigeneity," *Dialogue about Land Justice: Papers from the National Native Title Conference*, edited by Lisa Strelein (Canberra, ACT: Aboriginal Studies Press, 2010), 24.

Lev Manovich, "Remixability and Modularity, 2005," Manovich.net website, http://www.manovich.net/articles.php (accessed September 4, 2013).

This back-and-forth workflow is all part of the language of remixability (see figure 40, previous page). Like any new language, it actually requires a different way of thinking, influencing the way a practitioner approaches, plans and executes a project.

This was certainly the case during the creation of *Otea*. At times this new kind of production pipeline proved challenging: the momentum of building each component often stalled due to the sharing of assets between components - sometimes progress could not be made until an asset from another medium was completed. See Appendix E for more detail of the process.

5.2 Cultural transmission via transmedia

Despite the challenges of working in transmedia, the diversity of media also offer opportunities for the dissemination of ideas. Although I was exposed to my Maori culture growing up,²⁴⁵ I didn't have any fluency in the language. However, I was always fascinated by Maori myths and legends as strong cultural touchstones, because "...told well, stories immerse young listeners in rich social, cultural, historical and anthropological content, encouraging wonder." ²⁴⁶

My approach is to use those forms I gravitated easily to as a child, and embed language and other cultural concepts inside this type of mythological story to foster interest in these topics. Since I'm not aiming to produce a didactic mechanism for learning, the overt presence of the educational elements is reduced, in favour of an entertaining and engaging story-world that creates

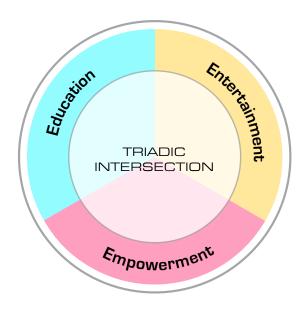


Figure 41. Underlying core values of educational game design, applied to the Otea project

positive cultural associations.

As noted in Section 1, the triadic paradigm developed by educational game designers to articulate their core values of education, entertainment and empowerment, serves equally well for my transmedia project (see figure 41).

This project uses entertainment across multiple platforms for the purpose of education (or cultural transmission), as there is "...no difference between learning and entertainment." ²⁴⁷ Both rely on the quality and engagement of the story being told - what differs is only intent.

In Edmonds view "...the key to a transmedia learning solution is in knowing

Mainly through visits back home to Manutuke for family reunions and staying at my marae, and by attending, as a young child, my father's high school's Maori culture group.

²⁴⁶ Faulkner, "Once Upon a Time."

²⁴⁷ Edmonds, "Transmedia Learning", 36.

the audience, the story and the delivery platforms." Therefore, if your intent is to transmit knowledge or enable learning, you need to craft the transmedia delivery appropriate to its audience, with care and enthusiasm in the pursuit of a good story. Then any learning should happen as an intended byproduct of the endeavour. My case for using transmedia is that it offers new ways for engaging a potential audience. The goal has been to build a rich story-world where the aspects of Maoritanga used are an accessible and natural part of the storytelling landscape.²⁴⁸

In evaluating transmedia story-worlds that appeal to children, Schell notes:

"...when the children grow into adulthood, they often want to share the worlds with their children, creating a cycle that might go on a very long time." ²⁴⁹

Observation of my daughter's enthusiasm for the stories I enjoyed as a child, shows different things take on relevance for her. This would be true of all children, and as a result my own appreciation for these stories is deepened.

My Maori transmedia story-world actively operates within a whakapapa model, where everything is connected through genealogical relationships (see figure 42). Usefully, as noted in my Honours project, a key tenet of the remix manifesto is that culture always builds from the past. Just as in transmedia, where each form is chosen for its strengths, the Western and Maori methodologies operate in a similar fashion, supporting and guiding their relevant areas.

Johnson Witehira believes that:

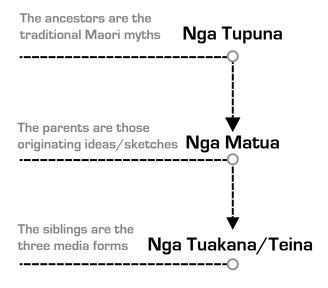


Figure 42. Otea, envisaged through a whakapapa model

"...a kaupapa Maori approach to design demands that a designer engaging with Maori content must have expert knowledge in both the worlds of Western design and Maori art and design." ²⁵⁰

Just as the main character in my story, Kurutai, draws on his dual heritage, "half god and lizard", ²⁵¹ the finished project is a gestalt of te ao Maori and transmedia, a working synthesis of these two sides, taha Maori and taha Pakeha – a reflection of my own heritage and the modern world of Aotearoa (NZ). ²⁵²

²⁴⁸ From my own experience in the classroom, (see Appendix B) engagement is a crucial aspect of successful learning.

²⁴⁹ Schell, The Art of Game Design, 304.

²⁵⁰ Johnson Witehira, in "The Difference Between Maori Design and Western Design?" by Corinne Smith, *Design Assembly: Conversations on Graphic Design*, August 7, 2012. http://www.designassembly.org.nz/articles/maori-and-western-design

²⁵¹ Duder, ed., Storylines: The Anthology, 94.

²⁵² According to Patricia Grace "... all Maori are bicultural to a certain degree, whether they are old or whether

5.3 Conclusion

From my point of view, this transmedia project, *Otea*, operates as a legacy for my own daughter. She, like myself, has Maori ancestry but has been raised in a primarily English speaking world. This project creates a pathway for her to explore her own dual cultural inheritances, her whakapapa.²⁵³

It's a proof of principle showing how an original fictional narrative with genealogical ties to Maori mythology, aimed primarily at children, might communicate my own enthusisam for *te ao Maori* by way of entertainment and thereby create an entry point into this larger world.

As Mayhew points out,

"The advantage to using storytelling to promote a message is that it is primarily entertainment. Arguments that might otherwise be challenging to get across can travel more subtly on the backs of drama, humor, and romance of narrative." ²⁵⁴

Rapua te mea ngaro, the whakatauki or proverb used in the story, is an exhortation to pursue that which is lost or hidden. It encapsulates the quest for the story characters, but is also a metatextual reference to the purpose of this transmedia project, which is to reveal aspects of traditional Maori knowledge

which have fallen out of use, or become buried in an obscure text.

Otea is a propositional and/or prototypical model of how a transmedia resource can transmit Maori cultural concepts – via repetition of visual, linguistic, and conceptual elements across media. In this regard it is a starting point for future inquiry, as well as a useful methodology for other practitioners to employ.

they are young. Fresno Calleja and Grace, "An Interview with Patricia Grace," 115. She also believes that Maori as a post-colonial people "...have our own particular culture to draw from, but [...] have 'world culture' as well." Vilsoni Hereniko, "Interview with Patricia Grace," *Contemporary Pacific* 10, no. 1 (Spring 1998): 159.

And as such, a potential pathway for other Maori children growing up in a global context and culture, where English is their first language. Holt maintains, through analysing Kahukiwa's work "...that children of mixed Maori/Pakeha descent know and draw strength from their Maori legacy." Jill Holt, "Narrative in Robyn Kahukiwa's 'Matatuhi': Culture and Narrative," *Papers: Explorations into Children's Literature* 16, no. 2 (December 2006): 130.

Sara E. Mayhew, "Legend of the Ztarr: The Skeptic Epic," *Skeptical Inquirer* (March-April 2012): 37.

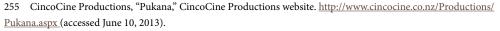
Appendix A. The origin, development and adaptation of Otea.

An origin story.

In 2002 I created an illustrated story for a children's anthology. Its genesis was two previously unused ideas: the first a character sketch that I created in 1999 for the children's television show *Tumeke* (later to morph into a show called *Pukana*).²⁵⁵ At the time I was 'working on spec' (unpaid) so when the character ended up not being used, I was free to set about re-working it.

Later in 2000 I was invited to present an artistic demonstration of my working process to a Maori librarians' bicultural Christmas function, arranged by Chris Szekely and Jock Walker of *Te Roopu Whakahau*,²⁵⁶ I decided to take one of these unused TV sketches and develop an origin story to accompany the presentation.

The origin story borrowed one major idea, of a sacred stone egg on a mountainside, from my submission for a children's story competition written in 1999.²⁵⁷ Because one Maori legend I read had described a woman birthed by a mountain²⁵⁸ I had an early idea that perhaps the mountain in my story birthed the stone egg.²⁵⁹ My idea of the egg's origin would eventually evolve in



²⁵⁶ Te Roopu Whakahau, "About Us," Te Roopu Whakahau website http://www.trw.org.nz/about-us/ (accessed June 10, 2013).



Figure I. Three story ideas that gave rise to the original prologue

the final story.

When the *Storylines* organisation²⁶⁰ invited me to both write and illustrate a four page story for an anthology, I set about adapting one unused sketch, paired with the origin story I had written. By itself, the story didn't contain enough material - a narrative that would fill out the required four pages. This was because I had developed the allocated page space into comic form, in order to squeeze in more story.

I was interested in traditional Maori astronomy at the time, and kept newspaper clippings and other articles I came across. An unusual formation of planets in the night sky from one such article²⁶¹ provided the catalyst for

²⁵⁷ Storylines, "Tom Fitzgibbon Award," Storylines website http://www.storylines.org.nz/Awards/Tom+Fitzgibbon+Award.html (accessed June 10, 2013).

²⁵⁸ James Cowan, Fairy Folk Tales of the Maori, 2nd ed. (Auckland: Whitcombe and Tombs, 1930), 160.

²⁵⁹ However, I can't help but feel it was also influenced, on a subconscious level, by the Chinese legend of Monkey. See, for example, Tao Tao Liu Sanders, *Dragons, Gods and Spirits from Chinese Mythology* (Sydney, NSW: Hodder

and Stoughton, 1980), 96; Joseph Campbell references an unusual 'Maori' story "of an egg dropped by a bird into the primeval sea; it burst and out came a man, a woman, a boy, a girl, a pig, a dog, and a canoe. All got into the canoe and drifted to New Zealand." It is so unusual, and unheard of in any other account, that I would query its veracity. It appeared originally in J.S. Polack, *Manners and Customs of the New Zealanders* (1840), quoted in Joseph Campbell, *Hero with a Thousand Faces* (London: Fontana Press, 1993), 292.

²⁶⁰ See Storylines website for more about the non-profit children's literature organisation: http://www.storylines.org.nz/

²⁶¹ Anne Beston, "Planets Put on a Rare Show," New Zealand Herald, April 20, 2002. http://www.nzherald.co.nz/

propelling the story forward, and increasing the narrative aspects. Part of the narrative became a kind of soliloquy, and a tuatara known as *Mokotawhito* became the character that delivered it. I would later describe it as a *waiata oriori* – this translates as 'birth lullaby'.

The birth is of the main protaganist, Kurutai, and inside the lullaby clues to his parentage are given: "half god and lizard... he is a Patupaiarehe" ²⁶³ (a kind of nature sprite). Orbell describes patupaiarehe as a spirit people, sometimes referred to as fairy folk, who at times aid humankind and at other times threaten them. ²⁶⁴ Patterson adds that, in nature:

"...everything has its protecting, guardian spirits (patupaiarehe). These will allow reasonable use of the plants, animals and minerals, provided the correct rituals are performed." ²⁶⁵

At the point at which Kurutai bursts forth he shouts the phrase: "*Tihei Mauri ora!*" (The sneeze of new life!). This is often used by orators to begin a speech;²⁶⁶ here it begins his entrance into the world.

The name Kurutai has four meanings, one of which is 'salty or brackish water'. This is related to the salty sea spray that anoints the stone in the story. The tuatara is called Mokotawhito, as *moko* is an older term for lizard (also related

to *tamoko* or tattoo), and *tawhito* means ancient.²⁶⁸ Mokotawhito occupies the archetypal position of the 'wise old mentor'.²⁶⁹ However, in order to avoid having this character know and explain everything, I wanted his wisdom to be much more narrowly confined, and thus he specialises in star knowledge.

Kurutai wears moss covered leggings. The idea came from this passage in a legend about the condition of a human, who spent time as a captive of the patupaiarehe: "...and a moss or lichen grew from his skin and covered his body..."²⁷⁰

Kurutai also has flax spear-like leaves for hair. In this account the physical condition of a rescued woman is described:

"Half her body retained its familiar form, but the other half had turned to wood. Her friends believed that the wooden part of her was a form of Parehe..." 271

So the idea that parts of Kurutai's physical figure might be formed by plant material seemed logical. Also, patupaiarehe are normally pale,²⁷² and yet I wanted a protagonist who in skin tone resembled a Maori child (so as to create positive associations and role modelling). I reasoned that in his case the brown skin tone could therefore also be part of his plant heritage. If his green hair were leaves then his torso might be the brown hue of a tree trunk, and his leggings were made from the green moss that grows at the base of trees.

nz/news/article.cfm?c_id=1&objectid=1592342 (accessed April 20, 2002).

²⁶² Robyn Kahukiwa and Roma Potiki, *Oriori: A Maori Child is Born – From Conception to Birth* (Auckland: Tandem Press, 1999).

²⁶³ Duder, ed., Storylines, 94.

²⁶⁴ Orbell, The Illustrated Encyclopaedia, 38.

²⁶⁵ John Patterson, Exploring Maori Values (Palmerston North: Dumore Press, 1992), 23.

²⁶⁶ Ibid., 28

²⁶⁷ Herbert W. Williams, A Dictionary of the Maori Language (Wellington: A. R. Shearer, Government Printer, 1975), 159.

²⁶⁸ While tawhito is not a adjective generally used to describe people, it is appropriate for an animal.

²⁶⁹ Christopher Vogler, *The Writer's Journey: Mythic Structure For Writers* (California: M. Wiese Productions, 1998), 12.

²⁷⁰ Reed, Treasury of Maori Folklore, 221.

²⁷¹ Ibid., 232.

²⁷² Ibid., 202.

My partner actually suggested the title *Rock of Ages*, and to me it seemed a perfect fit – referring to a rock that has existed through the ages. These ages are the *Age of Gods*, the *Age of Taniwha* (shown by dinosaurs), the *Age of Heroes* (and Man) and a new, unnamed age. The story was duly submitted to *Storylines*, accepted and published in 2003.²⁷³ But it was always envisioned as a prologue to something more.

Development of the Story.

Given that a prologue suggests more to the story-world, I applied to Creative New Zealand: Te Waka Toi for funding to work on extending the story, by writing a script for a graphic novel, and was awarded a grant in 2004.²⁷⁴

I took a two month sabbatical from employment and completed a draft of the script and a set of loose thumbnailed drawings for a 48-page book, fulfilling the terms of my grant, but of course the graphic novel itself was by no means finished. The project would start and stall over the years for various reasons; the main ones being that I began re-training in Digital Design (in 2006), and that I left my job in 2007 and my daughter was born a few months later.

That same year I began a new freelance assignment in television, and graduated at the end of 2008. Midway through 2009 I started lecturing part-time in Digital Media in the School of Communcations. But I would return time and again, throughout all of these life events, to rethink and tinker with

the *Rock of Ages* material.

I will detail here certain key decisions regarding the script, but only those which deal with the e-comic portion of the *Otea* project (pages 1-10).

In fashioning and shaping the script for this project, assistance was drawn from a variety of sources. Aspects of the story's structure were drawn from Christopher Vogler's 'Hero's Journey' model.²⁷⁵ Other storytelling obstacles were often overcome using *tikanga* to guide the internal logic of the characters' actions. Tikanga can be thought of as a set of rules, protocols for living, or even as guiding principles. Tikanga abound in all folklore and mythology as rules regarding supernature. For example, in *The Hobbit*, trolls must be underground before sunrise lest they turn to stone.²⁷⁶ Tikanga provide rules for the development of story, allowing characters to act in accordance with their nature, and providing clues for solving plot problems.

The story very much needed to be a natural outgrowth of things already existing in the prologue. It transpires that the mauri of the island is housed in the Rock of Ages. The mauri is lost when the Rock is shattered by the birth of Kurutai, placing the island at risk.

A few nights after the birth, another unusual star formation²⁷⁷ reveals this new danger, and four comets blast outward from the shattered Rock. This imbalance is the inciting incident²⁷⁸ to create a chain of events and subsequent

²⁷³ Duder, ed., Storylines.

²⁷⁴ Peter Janssen of *Reed Publishing* had suggested I pitch two graphic novel projects. See list of recipients on Creative New Zealand's website: http://www.creativenz.govt.nz/assets/ckeditor/attachments/111/04-05-1, pdf?1296993745

²⁷⁵ Vogler, The Writer's Journey.

²⁷⁶ J.R.R. Tolkien, The Hobbit (London: HarperCollins, 1993), 49.

John Dunlop, "The Night Sky: Peeking At Planets At Play," *New Zealand Herald*, May 2, 2002 http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=1842938 (accessed June 3, 2006).

²⁷⁸ McKee, *Story*, 18. According to McKee, within story structure, the inciting incident is "the primary cause for all that follows."

consequences.

Lizards, in particular green geckos, were thought to be omens of evil.

"Atua could enter a person's body because they themselves were bodiless. They might also pass into the body of a green gecko..." 279

Furthermore, in Maori belief there exist malignant spirits known as *atua* kahukahu.

"The Tuhoe people ... possessed a war god [atua mo te riri]... this spirit entered a green gecko..." 280

This idea became a plot point in the development of the script. The hapless gecko is possessed by a ghostly spirit (kehua) taking advantage of the island's imbalance. A nearby carving (an adaption of a burial tiki)²⁸¹ is a clue to the location of the urupa (graveyard) and therefore a tapu place.

"Green geckos were especially dreaded when they lifted their heads and emitted chattering sounds thought to be laughter. This was a terrible omen." 282

Mokokata, the green gecko, was named directly from this belief: *moko* meaning lizard, and *kata*, or *kakakata* meaning laughter.

On the first page of the e-comic this phrase appears: "*The Day of Ariroa*". Mokokata then says: "*A disagreeable day.*" Both of these texts are drawn directly from a *Ngai Tuhoe* traditional lunar calendar, once used to keep track of the

Tolkien kept a meticulous calendar of his characters' movements in the *Lord of the Rings*.²⁸⁴ In a similar fashion, the Maori lunar days are an ongoing feature in the *Otea* story, as well as references to the season of *Takurua* (winter). The choice to add these kinds of cultural textures through narration boxes was influenced by the manga *Lone Wolf and Cub*.²⁸⁵

There is no clear genealogical origin for patupaiarehe, despite some interesting fragments²⁸⁶ – and yet they occupy a distinct place in Maori mythology. This is unusual because, as already established, whakapapa ties everything together in the Maori world. As I had Mokotawhito name Kurutai as a patupaiarehe (he is clearly not human), I felt that Kurutai's character could be an entry point for the reader, a way of telling more about these mysterious beings by exploring his possible kinship with them. The story is a vehicle to reinvigorate old knowledge and stories, but also to provide possible narrative solutions for some of these unanswered questions, gaps that exist in the cosmology.

As described above, the mauri of *Otea* is broken into four parts, and I used a smiliar scheme to the classical Greek conception of the four elements.²⁸⁷

days of the month.²⁸³

²⁷⁹ Orbell, The Illustrated Encyclopaedia, 31.

²⁸⁰ Ibid., 32

²⁸¹ Terence Barrow, An Illustrated Guide to Maori Art (Auckland: Raupo, 2008), 102.

²⁸² Orbell, The Illustrated Encyclopaedia, 154.

²⁸³ Tiaki Hikawera Mitira, Takitimu (Wellington: Reed Publishing, 1972).

²⁸⁴ Shippey, J.R.R. Tolkien, 110.

²⁸⁵ Kazuo Koike, Lone Wolf and Cub, Vol. 1: Assassin's Road (Milwaukee, Dark Horse Comics, 2000).

Reed, *Treasury of Maori Folklore*, 136; Ibid., 98. For example there were people living on Te Ika a Maui when it was fished from the sea; in the story of Mataora, his unusual visitors, described as Turehu (a synonym for Patupaiarehe), hail from the underworld.

²⁸⁷ Sidney Perkowitz, "The Six Elements: Visions of a Complex Universe," Leonardo 43, no. 2 (April

Robinson cites two Maori tohunga who spoke in terms of these elements in a Maori context: Pou Taare Tikao said of a extremely tapu spot (in 1939) that it gave "...powers of the earth, air, fire and water."; ²⁸⁸ and Nepia Pohuhu (in 1913) is quoted as saying "hence there are four in all ...it is through the earth, water, fire and air combined that all things have form and life." ²⁸⁹ Although they were traditionally trained, it's worth noting that both these tohunga were living in a post-colonial world, and therefore may have been influenced by Western ideas.

Robinson's view is that the "...elements were divided between the many atua by *Ioiowhenua.*" ²⁹⁰ It is clear that many departmental deities had responsibility over the elemental domains. Tane Mahuta, the God of the Forest, holds particular significance in this regard, as the forest gave Maori a plethora of resources for living.

In this instance, Maori ideas perhaps have more in common with the Chinese worldview, which contains almost the same four elements as the Greeks (except that Metal replaces Air) and adds a fifth element - Wood.²⁹¹

Given the stature afforded to the god Tane and his deeds in Maori creation myths, and the role wood played in traditional everyday lives, a special place should be accorded to wood. Therefore this idea of a fifth element also holds some appeal for a later and larger story of *Otea*, and for Kurutai in particular.

This elemental theme was useful initally for structuring the story into chapters and providing a reason to traverse the length and breadth of the island, but is perhaps at heart a non-Maori view of the ancient world. I decided to retain this division of four elements for the purpose of the quest, but sublimate these notions in favour of four mauri fragments.²⁹²

The third character to appear in the story is a *toroa* (albatross) called Pakauroa (Long Wing). Pakauroa represents the archetypal herald figure that often appears inside the quest narrative.²⁹³ Henderson notes that "...the hero's journey actually begins with the call to adventure [...] usually fate brings the call, often sending a herald". ²⁹⁴ Pakauroa fulfils this function, exhorting Mokotawhito and Kurutai to undertake the quest.

"What's a mauri?" Kurutai asks Pakauroa and Mokotawhito. The answer given, beginning with "All things possess mauri...", allows the audience to learn alongside him. According to Barlow, "...mauri is a special power possessed by Io" ²⁹⁵ accorded to everything in existence. ²⁹⁶ Patterson elaborates further:

"Mauri and wairua come from the gods, so there is a 'divine spark' in everything – as evidenced by the whakapapa (genealogical tables) which trace the descent of everything, even inanimate things such as rocks, from the gods." ²⁹⁷

^{2010): 208.}

²⁸⁸ Samuel Timoti Robinson, Tohunga: The Revival (Auckland: Reed Publishing, 2005), 124.

²⁸⁹ Ibid., 124.

²⁹⁰ Ibid.

Eugene W. Blank, "The Chinese Five Element Theory: A Comparison of the Aristotelian and Chinese Systems of Elements," *School Science and Mathematics* 45, no. 9 (March 2010): 866-867, http://onlinelibrary.wiley.com. ezproxy.aut.ac.nz/doi/10.1111/ssm.1945.45.issue-9/issuetoc (accessed 10 December 10, 2013).

²⁹² J.R.R. Tolkien, *The Lord of the Rings*, 2nd ed. (George Allen & Unwin Ltd, 1966). The four elements were also only hinted at in the Lord of the Rings: the One Ring and the three Elvish rings being elemental in nature.

²⁹³ Vogler, The Writer's Journey, 23.

²⁹⁴ Henderson, Star Wars: The Magic of Myth, 22.

²⁹⁵ Ngamoni Huata, *The Rhythm and Life of Poi* (Auckland: HarperCollins, 2000), 22. In some accounts, Io Matua Kore is considered as a supreme deity responsible for all creation.

²⁹⁶ Barlow, Tikanga Whakaaro, 83.

²⁹⁷ Patterson, Exploring Maori Values, 77.

According to Orbell, mauri are repositories of vitality ritually located in objects, usually a stone.²⁹⁸ In *Otea* the mauri of the entire island has come to reside in the *Rock of Ages*, venerated as it has been throughout history.

"At the same time an atua, sometimes more than one, was located in the stone as well. In this way the mauri brought together the vitality of the entity and a guardian spirit." ²⁹⁹

Kurutai fulfils this function in the story.

The issue of what name to use for the island was solved by finding a legend of a human called Tura, who stumbled upon a land peopled by Parehe (a variation of Patupaiarehe). The land is named:

"The voyage continued without interruption until they reached the coast of O-tea, an unknown and unexplored land." 300

Yet no other tale I have heard makes mention of this place, so *Otea* became the name of my fictional island. The meaning of the word can only be guessed: place names beginning with 'O' often mean 'of' or 'belonging to', so one translation might be 'Of *Tea*'. *Tea* by itself means pale, or misty. So *Otea*, a misty isle, seems the ideal place to house a supernatural people who dwell unseen, in mist-covered places.³⁰¹

This name also held extra appeal as my daughter, Rangiatea, has shortened her own name to Tea. In addition, my great-grandmother once penned a memoir about her life in New Zealand titled *The Misty Isle*.³⁰²

With the release of the American movie *Rock of Ages* (a homage to 1980s hair-metal in the form of a musical),³⁰³ I began thinking of a way to rebrand my story so as to lessen any possibility of association through confusion with this film and my project. Also, there already exist comic works that use this same phrase as a subtitle, such as *JLA: Rock of Ages*,³⁰⁴ and *Quantum: Rock of Ages*.³⁰⁵ In the same way that *Lord of the Rings* is associated with its location, *Middle-Earth*, my story is also very much about a sense of place; as a result I have re-designed the title to read *Otea: Rock of Ages*.

The 'Refusal of the Call' is another signpost on the road of the Hero's journey. 306 In *Otea*, this occurs when Mokotawhito attempts to rebuff Pakauroa's challenge to retrieve the lost mauri. When asked how much time is required to complete the quest, Pakauroa replies:

"Ka puta a Matariki, ka rere a Whanui, ko te tohu o te tau.*
*The Mauri must be restored by the New Year, so it can be blessed by the gods and consecrated with prayer."

Matariki is the Maori New Year and occurs during midwinter. While working at the New Zealand Herald, I produced a number of infographics on this topic. Because of my interest in this area, and as I was setting the story-world according to a Maori calendar, it seemed a natural decision to include this

²⁹⁸ Orbell, The Illustrated Encyclopaedia, 117.

²⁹⁹ Ibid., 118.

³⁰⁰ Reed, Treasury of Maori Folklore, 226.

³⁰¹ Ibid., 207.

³⁰² N.A.R Barrer, *The Misty Isle*, (Christchurch: Whitcomb and Tombes, 1966). It was often referred to in our family in somewhat humorous terms.

³⁰³ See Warner Brothers promotional website for the film: http://rockofagesmovie.warnerbros.com/dvd/

³⁰⁴ Grant Morrison, JLA: Rock of Ages (New York, DC Comics, 1998).

³⁰⁵ Philip Clark, Quantum: Rock of Ages (New York: Dreamchilde Press, 2004).

³⁰⁶ Henderson, Star Wars: The Magic of Myth, 36.

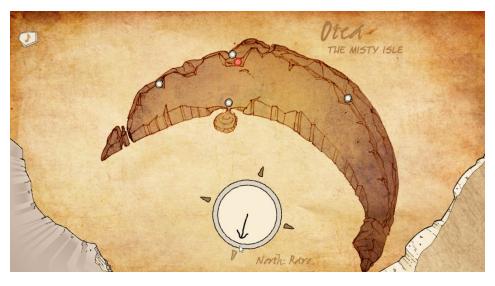


Figure II.
Interactive
Map [video]

Click to activate

important date and build the plot around it.

The conclusion to this e-comic chapter comes in the form of Kurutai's acceptance of the challenge, when he uses the proverb "*Rapua te mea ngaro*". This translates as 'Find that which is lost or hidden.' This e-chapter is the first act of a much larger story³⁰⁷ and this termination can act as a natural point of entry to the game (although this order is not compulsory - see section 4.5 and figure 37). As the proverb suggests, the object of the game is to find all the hidden parts of the mauri.

Adaptation of Story to Game.

As stated above, the e-comic's conclusion leads into the game component, so the game has to adapt parts of the unpublished script that exists beyond the comic chapter. I use these script ideas to create linking narrative throughout the game, but it also departs from the script in significant ways. A game cannot simply be a copy of a graphic novel script, it needs to provide different ways of engaging the user.

The non-linear structure means a player won't encounter story elements in the story order of the original script. If they did, less control would be given to the player as a result – making it less interactive. In a game, these elements therefore become flexible and less tied to linear moments.

Animated comic panels serve as a quick recap to the story thus far, which then brings the player to a map (see video clip in figure II).

The map serves as the main menu, and uses an ancient Maori and Polynesian compass, which repositions the world so Aotearoa (New Zealand) sits at the top. *Raro* (meaning down, below, under) equates to North, while *Runga* (up,

³⁰⁷ For a discussion of three act sructure in narratives see McKee, Story, 218.

Naumai! Haeremai!	(welcome)	Maori Numbers	1-15
Meinga meinga!	(excellent)	Mauri	(life-force)
Tau ke!	(great)	Rawhiti	(East)
Ka mau te wehi!	(awesome)	Uru	[West]
Tumeke!	(well done)	Runga	[South]
Haere tonu!	(keep going)	Raro	[North]
E hoa	(used to address a friend)	Karakia	(prayer)
Aue!	(exclamation)	Patupaiarehe	(supernatural fairy folk)
Aue! Taukiri e!	(Oh no! Calamity!)	Ponaturi	[malevolent sea sprites]
Pouri atu!	(Go away!)	Urupa	(burial ground)
Nga mihinui!	(Congratulations!)	Te Kehua	(the ghost)
Kia mate ururoa kei mate wheke!	(Fight fiercely like a shark not like an octopus!)	Te Taniwha	(the guardian creature)

Figure III Examples of Maori words and phrases used in the game

on, over) equates to South - an absolute paradigm shift in thinking about location and direction.³⁰⁸ Maps are often a staple feature of games and fantasy stories.³⁰⁹

Maori words, *whakatauki* (proverbs) and *kiwaha* (idioms) are used throughout the game (see examples in figure III): some explained and translated, and others made clear from the context.

The division of the mauri into four parts naturally allows for the separation of tasks in the game. All four parts end up located in the four quadrants of the island, which also correspond to the elemental domains used in the script.

There are two water based activities. One is developed from a plot point from the script, where Kurutai attempts to catch fish. *Pounamu* (greenstone), is referred to in Maori mythology as a fish that, when taken from water, becomes a stone. This story idea has been enlarged into a game activity for the player, which, through animation, shows the fish literally changing into a stone.

The other water activity is an encounter with a taniwha. This is adjacent to the fishing activity, whereas in the original script order the taniwha scene preceded the fishing scene.

There are two stone based activities. The first is a maze or labyrinth, the home of the *Porotai* (Stone Patupaiarehe). The second presents itself in the form of a rock avalanche that the player must reassemble jigsaw-like into a stone staircase, in order to climb out of a ravine.

This then leads onto a third activity, a board game through the ferns, where

³⁰⁸ Another Maori compass uses *Tokerau* for North, and *Tonga* for South (the names of the Pacific Islands Tokelau and Tonga are related to these terms).

³⁰⁹ Nick Stockton, "Fantastic Cartography Tips From the Guy Who Mapped Game of Thrones," Wired.com, March 12, 2013, http://www.wired.com/wiredscience/2013/12/fantasy-maps-cartography-tips-jonatha-roberts-game-of-thrones/ (accessed December 5, 2013).

the player encounters the diminutive *Te Tini o te Hakuturi*. Orbell notes that "...it was the task of the Multitudes of the Hakuturi [...] to protect the forest in Hawaiki." ³¹⁰ They have also been described as being both "...true fairies and elves, as well as birds and insects." ³¹¹ Yet Orbell gives an account of an instance where they were assisted by spiders. ³¹² From these varying descriptions, I chose to depict them as separate entities from forest creatures (with an assumed power over birds and insects).

The player gains access to the air based activities via a system of caves. A *Hokioi* (giant eagle) feather catching game is the first. The second activity is presented as a challenge to help escape a vertical shaft. This uses *Karearea* (a native New Zealand falcon), who is not encountered as a character with dialogue, but is presented as a stylised foe inside another walled maze. The third cave introduces us to a character not featured in the original script whatsoever: a Birdwoman, notorious from the legend of *Hatupatu and the Birdwoman*. This was in fact my daughter's suggestion. It seemed a natural fit, however, as I had entertained the idea of using the character in a later story.

The fire-based challenge takes place in the human domain. This encounter involves *Te Atuapoto*, a carved tekoteko that straddles a gateway. Te Atuapoto presents the player with a riddle (a feature of myths) in the form of a quiz which discusses the origin of the taiaha. This riddle doesn't appear in the main storyline, but came from a related storyline I had planned to use in a later part of the story. The look of this character has also changed over time, influenced by an undergraduate 3D animation project I worked on, using the

same character.

A second encounter is with a *kehua* (or ghost) in a long forgotten *urupa* (cemetery). Mokokata makes an appearance in the Urupa scene to offer a warning; this departs majorly from the script.

The birdwoman, the kehua, and the taniwha cannot be successfully passed unless the player has one of three items in their possession. These are a fish, a fire-torch, and a god-stick, each one relating to their respective challenge.

Once the items are successfully obtained, these scenes offer up character cards, as a rewards system. This idea of rewards and resources is described in Celia Pearce's game model (see section 2.8.2, figure 12). The info-box design motif, carried over from the comic, has been modified into the character cards. Karearea's maze game also offers a fourth card, upon completion.

These rewards are used to give a glimpse of the wider story-world and its inhabitants. There is a history of cards used in various types of games, and in more recent times a connection between trading cards, animations, and video games, so this aspect should be a familiar and attractive reward for the player.³¹³

³¹⁰ Orbell, The Illustrated Encyclopaedia, 44.

³¹¹ Reed, Treasury of Maori Folklore, 179.

³¹² Orbell, The Illustrated Encyclopaedia, 44.

³¹³ Masuyama, "Pokemon as Japanese Culture", in *Game On: The History and Culture of Videogames*, ed. Lucien King (London: Laurence King Publishing, 2008), 39.

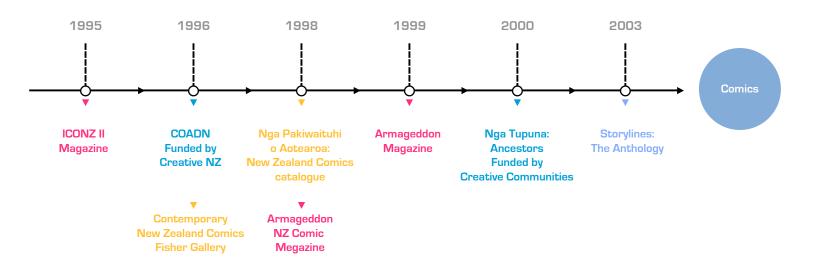


Figure IV. Comics that I have contributed to or created

Appendix B. Convergence of interests and experience.

Given that my transmedia project is primarily aimed at children, this section details my background working in the fields of children's books, comics and television, including some personal observations from various festival appearances. These years of experience fall into the realm of tacit knowledge. Invariably this kind of knowledge filters through into creative decision-making.

As a child, my interest in comics began through collecting them. I wrote and illustrated my first comic-strip in primary school, and my first comic-book in high school. My first foray into professional book illustration and comicbook publishing came about when I self-published a Creative New

Zealand funded comic.³¹⁴ My actual published output was small, but I made a significant contribution as co-editor, co-writer and contributer for a millennium-celebrating, historical NZ comic anthology project that used part of my own whakapapa.³¹⁵ I both attended and participated in comic festival and gallery exhibitions as part of the NZ comics 'scene' (see figure IV and figure V, overleaf).³¹⁶

Comics were my entry point into children's books. Following the launch of my self-published comic, I was asked to illustrate for a series of Maori legends for *Reed Publishing* (see figure VI, overleaf). A selected bibliography spanning

³¹⁴ See entry in the NZ Comics Wiki: http://wiki.comics.org.nz/index.php?title=Zak Waipara

³¹⁵ See entry in the NZ Comics Wiki: http://wiki.comics.org.nz/index.php?title=Nga Tupuna - Ancestors

³¹⁶ See Armageddon Expo website for a short history of NZ comics: http://armageddonexpo.com/nz/history/

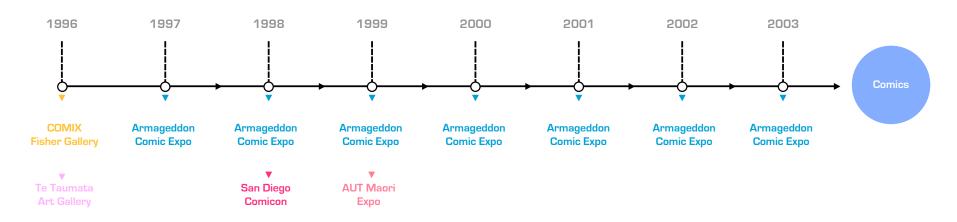


Figure V. Comic expos and exhibitions that I have participated in

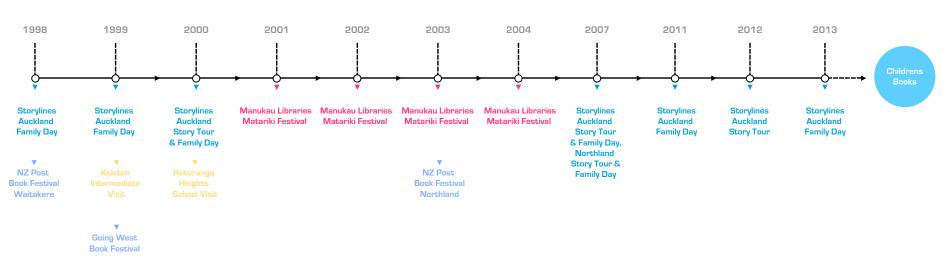
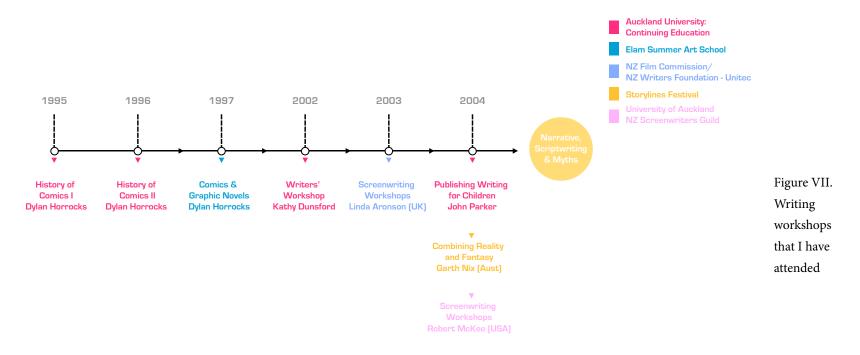


Figure VI.
Children's
book
festivals
that I have
participated
in



the years 1996–2007 is available on the *Storylines* website,³¹⁷ and this provides an idea of my involvement in this arena. Of the nine books listed, four of these were retellings of Maori legends, and one of a historical event involving first contact between Maori and Captain Cook, touching upon the retelling practice described in section 2.4.

From the time I ventured into the industry as a freelance illustrator and designer, I have presented and spoken to children from Auckland to Kaikohe as part of a number of children's book festivals (see figure VI, overleaf).

Over this period I also attended a number of writing workshops with the

aim of increasing my understanding of storytelling. Foremost in my mind was gaining skills in order to complete my comic based projects – one of which became *Otea: Rock of Ages* (see figure VII).

Additionally, I have several years of industry experience freelancing for children's television (see figure VIII, overleaf), most recently for seven seasons of the show *Miharo*.³¹⁸ The show was developed with an education consultant along New Zealand primary school education curriculum lines, within a Maori context.

Once the show was underway some unpublished research was also conducted

³¹⁷ Selected bibliography on the Storylines website: http://www.storylines.org.nz/Profiles/Profiles+T-Z/Zak+Waipara.html

³¹⁸ See Maori Television Service's description of *Miharo*: http://www.maoritelevision.com/tv/shows/miharo

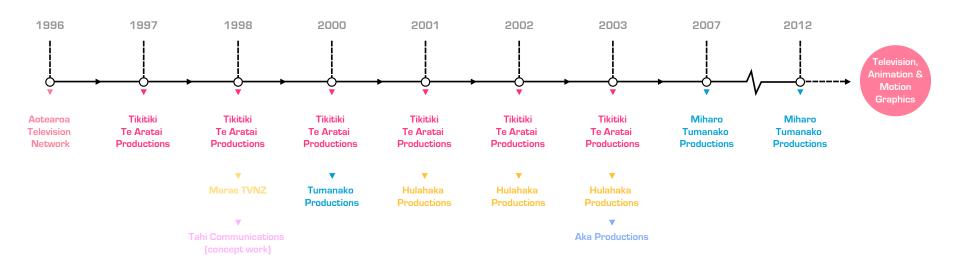


Figure VIII. My experience working in television

with focus groups, as a guide to plan future episodes.319

My contribution to the show was primarily for an animated segment *Korero-o-Nehera* (Legends of Long Ago),³²⁰ where my role involved being a co-director, storyboarder, and illustrator. These animations were compressed and edited retellings of Maori myths and legends, and were on average only two minutes in duration.³²¹

Given this short duration and the fact that the target audience was children, the stories were edited for length or when content was deemed inappropriate. The retelling process involved collaborative meetings between the animator,

While the larger show *Miharo* wasn't resourced for in-depth research, informal feedback suggested that the *Korero-o-Nehera* animated segments were a favourite part of the show, and this was confirmed by in-house research conducted by the *Maori Television Service*.³²² This feedback provided confidence in using an intuitive approach to creating entertainment aimed at children, in

show director, writer and myself. The directing of the animations often fell to me in the second instance, as I was interpreting scripts, and making storytelling decisions from my reading of the script. It is because of this that Kay Ellmers, Producer/Director at *Tumanako Productions Ltd*, described my role as codirector.

³¹⁹ Kay Ellmers, personal communication, March 25, 2013.

³²⁰ See Miharo website: http://www.miharo.co.nz/index.pl?page=konr_select

³²¹ Some examples can be accessed at this website: http://vimeo.com/38817795

³²² Kay Ellmers, personal communication, March 25, 2013.



Figure IX. Miharo transmedia prototypes

an educational context, which bears on my current research project.

I was then asked, in my capacity as a designer, to adapt these same animations into book form for possible publication. I also developed a prototype 'memory' Flash game as a possible addition to the programme's new website.³²³ Already the seeds for possible transmedia were present in these adaptive experiments (see figure IX).

After a break of about three years from festival appearances, I was asked to appear at the *Storylines Festival 2011*.³²⁴ I debuted some new artwork as part of

a comics artist stall, and also demonstrated some prototype versions of Adobe Flash games I had been building and programming in my spare time. This was ostensibly a chance to test some of these ideas out on a live audience, although it relied purely on my informal observations.

Watching the gameplay revealed interesting obstacles I hadn't considered, and gave me ideas to explore further in game design. For example, I had created a dead end in one game, and a particular child kept returning to it even though there was no way through. This made me think that a obstacle should always have a solution that rewarded perserverance, and I resolved to make this change on future game projects.

In 2012 I was invited to participate in the *Storylines Festival* once again, speaking to school children over two days.³²⁵ In my presentations I spoke of my desire to pursue my Masters project and by extension expand the story-world of *Otea: Rock of Ages*. Promotional cards were given away at the conclusion of the talk.

In June of 2013 I appeared at *Dominion Road School* as part of their *Book Week* celebrations, speaking to all the children about my role as illustrator, graphic designer, animator and storyteller. I was asked to provide a colouring-in page of my artwork (based on a Maui story) for the younger school, and an illustration challenge for the older school. I adapted a story I worked on

Storylines%20Festival%20Report%202011.pdf

^{323 &}quot;Auckland Company Launches Full Immersion Te Reo Maori Website For Children," Auckland Scoop, December 5, 2012 http://auckland.scoop.co.nz/2012/12/new-te-reo-maori-website-for-children-launched/ (accessed December 2, 2013).

³²⁴ See report on Storylines 2011: http://www.storylines.org.nz/site/storylines/files/Festival%20Reports/

³²⁵ See report on *Storylines 2012*: http://www.storylines.org.nz/site/storylines/files/Festival%20
ReportsFestival%20Reports//Storylines%20Festival%20Report%202012%20Website.pdf; One of the schools documented their response: http://reremoanaroom72012.blogspot.co.nz/2012/08/story-lines-meet-authors-and.html



Figure X. Myself, at Storylines Festival 2013

called *Kopuwai the Monster*³²⁶ and formatted the story into a comic page to be illustrated by the children.

I gave away stickers based on the *Otea: Rock of Ages* characters, and donated 1st and 2nd prizes of my illustrated books for the comic challenge. I also designed certificates for the winning students and laminated a copy of my *Storylines* poster design and gifted it to the school library. I then judged the comic challenge the following week and presented these prizes and certificates at the school assembly.

In August 2013 I also appeared at the *Storylines Festival 2013*, in the Comic Zone area, talking with children and adults, promoting my portfolio work (including my work-in-progress comic pages) and demonstrating live sketching and colouring. I also gave away promotional cards and stickers based on the *Otea: Rock of Ages* characters.

In September 2013 I was invited to run a short workshop at *Mt Roskill Library* on designing comic characters. I prepared a worksheet with ideas and



Figure XI. Children working on their comic characters at the Mt Roskill Library workshop

illustrations in advance of the workshop itself, liaising with Marion Walker (Children's Librarian) and later with Harriet Hodge, whose feedback was helpful in this regard. The worksheet was a summary of approaches to coming up with ideas, and some general principles for drawing, though I tried to not be too prescriptive and thereby overwhelm natural creativity. The workshop was open to all comers, and was very enjoyable to run, with both children and adults attending (including Library staff), who helped to provide valuable support on the day).

Finally, I have had some experience working with children teaching art and comics illustration (sometimes through festivals) and I created a drawing tutorial segment for *Miharo*. My tertiary teaching experience includes a range of digital media papers, mostly at AUT (see figure XII, overleaf).

³²⁶ Queenie Rikihana Hyland, Kopuwai The Monster (Auckland: Reed Publishing, 1998).

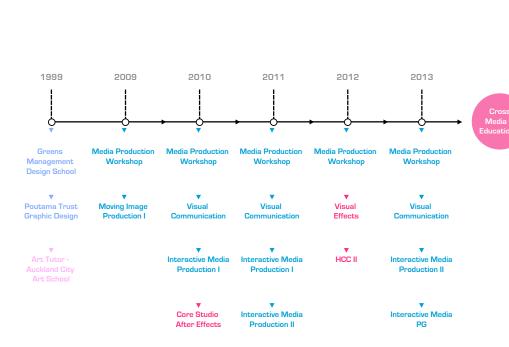


Figure XII.
Timeline of
my teaching
experience

AUT: Digital Design

AUT: Digital Media

Short Term Relief Teaching

Children's workshop

Conclusion

The enthusiasm and positive feedback I received by connecting directly with the target audience, students and those professionals associated with the field, has helped contribute to my creative process. This experience forms part of a broader narrative that illuminates the way that tacit knowledge formulates.

Being involved in this arena for a number of years, working on a variety of projects and disciplines, has enabled me to hone my practical skills in illustration, storytelling and research skills, but also identify a gap in which to situate my current project. This research draws on wide area of interests, but coalesces together very naturally in this one transmedia project.

Appendix C. Example of Maori transmedia: the Tawhaki legends

As discussed in 2.3, here is one Maori example of what Jenkins refers to as an old-fashioned transmedia approach. Similar to the Maui cycle (see section 2.6), the *Tawhaki* cycle details a set of adventures about a demi-god and ancestral hero from Maori mythology.³²⁷

The oral tale of Tawhaki's ascent to the heavens, to retrieve the baskets of knowledge, is depicted in a carved *pou* (pole) that adorns an inside wall of *Te Purengi*, the wharenui³²⁸ on AUT's marae.³²⁹ According to Pama-Pengelly, "...carving has a mnemonic function in recalling ancestral deeds." ³³⁰ The carved post is designed to directly call to mind the ancient tale it references.

Furthermore, the *tukutuku* (woven panels), beside the pou, use a pattern known as *Te Ara Poutama*, described as a ladder or staircase. Its inclusion complements and reinforces the climbing motif of the Tawhaki story, and is also used to evoke academic achievement.

Aspects of the tale are also preserved in the proverb *Pupuritia ki te aka matua* (hold fast to the parent vine),³³¹ advice Tawhaki is given when ascending to heaven, as well as in the song *He tangi mo Tawhaki*:

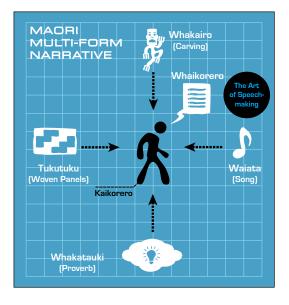


Figure XIII.
How an orator
might weave
together
various
artforms into a
single thread.

"This is an ancient lament. According to the northern tribes, it was composed by Karihi for his elder brother Tawhaki, who is said to have ascended the heavens. He was an ancestor of both Whakatau and Rongomai who travelled to Aotearoa on board the Mahuhukiterangi canoe, from which the Ngati Whatua tribe trace descent." 332

Therefore, although not created by a single artisan, these different mediums: the oral tale, the carving, the panels, the proverb, are all part of the same story. A skilled orator (*kaikorero*) would be able to draw all these threads together into a single thematic speech, known as a *whaikorero*, 333 and finish with the waiata *He tangi mo Tawhaki* (see figure XIII).

³²⁷ Reed, Treasury of Maori Folklore, 158.

³²⁸ The wharenui is a traditional Maori meeting-house, literally meaning 'large house'.

³²⁹ The marae (a tribal grouping of buildings for meeting) on AUT's campus is called *Nga Wai o Horotiu*. Waka Huia, "Ngā Wai ō Horotiu Marae at Auckland University of Technology," YouTube video file, 19:54 http://www.youtube.com/watch?v=4TmtQjRUwtc; http://www.youtube.com/watch?NR=1&v=n1bsano-ZUg&feature=endscreen (accessed June 2, 2013).

³³⁰ Paama-Pengally, Maori Art and Design, 20.

³³¹ Jeanette Margaret King, "Eke Ki Runga i te Waka: The Use of Dominant Metaphors By Newly-Fluent Māori Speakers in Historical Perspective," (PhD diss., University of Canterbury, 2007), 62.

³³² Bradford Haami, ed., *He Waiata Onamata: Songs from the Past* (Auckland: Te Reo Rangatira Trust, 1998), 45. The first line begins: "Te kiri o Tawhaki, ka ngaro koe i te oneone..."

³³³ Continuing Education Unit, Radio New Zealand, Whaikoorero: Ceremonial Farewells to the Dead (University of Waikato, 1981).



Figure XIV. Early version of Title Scene and Scene 1 of the motion comic [video]

Click to activate

Appendix D: Technical Breakdown Examples

This section details one component from each of the media portions and serves as a general example of how the whole project was resolved.

Motion Comic: Title Scene and Scene 1.

The motion logo that opens the motion comic started off in Illustrator as vector art, and then had Photoshop textures added, before being sent to After Effects and assembled with animation and temporary sound. I designed the

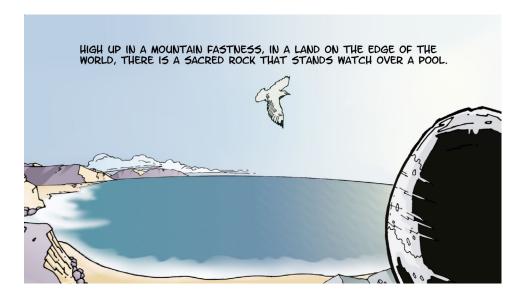


Figure XV. Final version of Title Scene and Scene 1 of the motion comic [video]

Click to activate

Rock of Ages typeface by hand, and traced it into vector shapes for the original published prologue. The *Otea* logo was designed as a new element for this project.

Simple, uncomplicated animation seemed the best choice for the motion comic, as there is no point trying to duplicate cel (frame by frame) or CGI animation, and the animation needs to allow the pages and panels to 'breathe' in this virtual space. It begins by simulating light spilling into a cave, alluding to a rising sun or new day.

The music used in the title scene is the track *First Rays*, which matches the game's opening soundtrack. The logo that begins the motion comic is re-used

to close out the game upon completion.

The first iteration of the title scene used a standard After Effects 35mm virtual camera; in a later version this was updated to include a CC Lens effect. The panel was originally conceived with a curved horizon, an exaggeration of the earth's curvature. The lens effect was chosen to enhance this exaggerated aspect. The camera move used is a simple pan from left to right, as would occur when reading, culminating in the Rock of Ages being deliberately kept off panel until the last moments of the scene.

As described in section 4.2, all artwork was separated out, layered, had missing pieces redrawn, and was re-configured to a wider aspect ratio. I added a stand-in seagull (borrowed from another panel of the prologue), but this was substituted for a more realistic silhouette, that showed a proper wingspan, taken from a new page in the e-comic.

A Fast Blur effect was used on all the sea foam to better integrate them and reduce harsh edges (these had appeared as a result of separating them out). I adapted the idea from a Photoshop technique I was using to blend various pieces of colouring together.

There is continuity of sound: the *First Rays* track keeps playing and leads directly into Scene 1, where atmospheric ocean ambient sounds are added. A gull noise was borrowed from the game and reused for this scene. It was experimentally placed at the end of the gull's flight, then the middle, but it worked best at the start, as if announcing itself.

The subtitle text uses *Letter-o-matic* (a comic style font), used across the whole project.

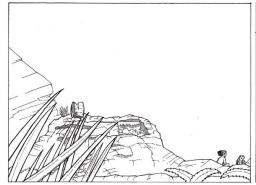




Figure XVI. E-comic: Panel 1 development

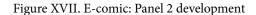
E-comic: Page 5

Panel 1 (see figure XVI): The layout for this panel was changed several times. It originally took up most of the page, until I decided that wasn't a judicious use of space, and inserted a new panel (that would end up becoming panel 2), shortening this panel.

The second attempt, which was finished to the inking stage, didn't have enough of a foreshortening effect. The main characters were too small, and didn't match the scale in the bottom panel. Parts of this panel were reused in the motion comic to help fill out background elements in Scene 2.

My third attempt took the finished inks and distorted part of the drawing to angle the rocky waterfall, subtly increase perspective and decrease the unrealistic flattened appearance. The flax leaves were also cut apart and





rearranged to help achieve this diminishing effect, by placing the larger leaves on the right, and smaller leaves on the left. A number of new inked fern leaves were also included in the scene. Clouds were added to the sky, and were drawn to emphasise them receding into the distance. This required perfect curves, which I made in Illustrator and imported into Photoshop.

Panel 2 (see figure XVII): Since this panel was a new addition, it took various attempts with rough stand-ins to achieve results. The rough tuatara sketches I tried at first didn't work, as I had to guess how a tuatara might look from a bird's eye view, and in the end I used my 3D model to provide a more realistic reference. The rough sketches of Kurutai also proved inadequate, and this issue was only resolved when I realised that Kurutai could be looking off panel, making him a more active part of the story, and conveying through his body language that he was bored with Mokotawhito's lecture.

Though reasonably happy with the new inked version, I horizontally stretched Kurutai's face slightly to make it wider, and moved his mouth and nose around to match his proportions as shown on other pages. This technique of being able to remix pages both in the previsualisation stage and in a more finished stage is

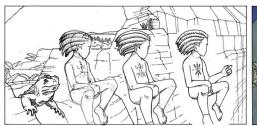




Figure XVIII. E-comic: Panel 3 development

very freeing, as it reduces the pressure to get things perfect on paper, however it also increases the workload as I become ultra-critical of my drawing and inking ability and seek to improve these aspects digitally.

Panel 3 (see figure XVIII): In this bottom scene Kurutai's size was decreased, to create diminishing perspective, to place Mokotawhito closer to the viewer, and to conform more closely with panel 1. Kurutai's hair in this panel took four attempts to get right. Much like the layering of files for the motion comic, these pages often ended up with multiple ink and colour layers (rather than one layer for ink and another for colour) - a result of frequent changes to the compositions.

Game: Hakuturi mini-game

Schell's elements of game design (see section 2.8.2), are used here to help describe the technical breakdown.

Mechanics: The object of this mini-game is to roll a die and proceed along a boardgame-style pathway, while avoiding obstacles. These obstacles are diminuitive Patupaiarehe, *Te Tini-o-te Haukturi*, who are triggered when the player lands on pre-determined squares, similar to a *Snakes and Ladders* board.

Upon landing on one of these squares, the player is sent back two spaces, as one of the Hakuturi leaps out from the undergrowth. The idea was adapted from an unused script idea, where Kurutai and Mokotawhito encounter these same characters on a forest path, attempting to block their progress.

A counter keeps track of the player's progress, displaying both Roman numerals and Maori numbers in text form.

The goal of the mini-game is to reach the final square, where a reward awaits in the form of an item known as a godstick, which can be used to combat the taniwha in another part of the game. This reward system is used throughout the game as a whole. Traditionally a godstick was a mnemonic device where carved notches assisted with the recall of ritual recitations.

Story: Mokotawhito greets the player on arrival with comic-style speech balloons, which are used to provide instructions but are also an inclusive element for the player. A similar setup exists across all the scenes in the game.

The player here is represented by a cartoon footprint, deliberately designed as a non-exclusive character trait, allowing any person to project themselves into the game.³³⁴ Mokotawhito also has a randomly assigned repertoire of responses and descriptions of the Hakuturi, that have been adapted directly from the unused portions of the graphic novel script.

Aesthetics: The game has been built using mostly vector art, created in Illustrator or Flash, in combination with drawn elements taken from the

e-comic and motion comic. It is interesting to note that the Hakuturi characters, drawn in pencil and ink and then coloured in Photoshop, looked initially out of place, possibly because they were emerging from beneath vector artwork. However once Mokotawhito the tuatara (also drawn in ink and Photoshop colour) was added, the Hakuturi integrated much more successfully into the overall aesthetic.

Specific sounds used for this scene include a rattling sound for throwing the die, a springy bounce for the Hakuturi, the sound of footsteps on gravel for the animated feet, a swoosh sound for the godstick scaling up, and a magic chime for its collection (used consistently when collecting objects in the game).

Technology: As in the bulk of the game, only reading instructions and pointand-clicking of the mouse is required to navigate this Hakuturi game (though in some parts of the game variations do exist, such as keyboard navigation using the arrow keys).

Early iterations of the whole game began to increase in file size, and loading was slow as a result. This was due to timeline based (or procedural) programming, where all the game assets sit physically inside the project. ActionScript 3 code allows navigation from scene to scene once the swf (playable file) is generated (see figure XIX, overleaf).

This procedural approach does provide the game designer with a tangible visual example and physical structure of the project. When first moving into interactive design I found this aspect intially useful, especially as I came from a print and motion design background.³³⁵ But as the project became more

³³⁵ This was also common amongst the students in my interactive media classes, although every so often one student would grasp the OOP concepts immediately and their learning would skyrocket.

³³⁴ McCloud, Understanding Comics, 36.

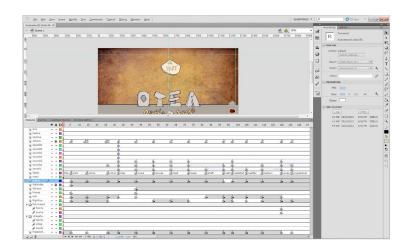


Figure XIX. Demarcated areas on the Flash timeline, and mutiple layers

complex, the timeline continued to grow, as did the layers and eventually the file size (see figure XX).

In comparison, Object Oriented Programming (OOP) is based on the interoperation of many separate files, all communicating with one another.

A real-world analogy is the task of building an airplane entirely from scratch.³³⁶ This wouldn't begin with grabbing a blowtorch and welding. It would require a blueprint, in fact a series of blueprints, given that an airplane is made of many separate parts - wings, wheels, seats, brakes, etc. Each blueprint would describe and correspond to an actual physical part of the plane.

To build the airplane, you would manufacture each of the parts individually, and then assemble them according to a master blueprint. The interoperation

Figure XX The timeline is divided into scenes that the user can navigate using the interface

of the assembled parts produces the airplane's behavior, such as its ability to fly (see figure XXI, overleaf).

Using ActionScript 3 and OOP, class files (blueprints, in our airplane example) describe both tangible and intangible objects,³³⁷ and objects work together according to a document class file (master blueprint). In pure OOP, all of the class files describing an object's behaviour are external, and are dynamically loaded into the document class.³³⁸

I used this general principle to achieve some reduction of the game's file size via a dynamic loading process, whereby individual standalone Flash files are dynamically added via ActionScript code while the game is being played. This

SCENE_1 SCENE_2 SCENE_3 SCENE_4

³³⁷ An object might represent: a number in a calculation, a clickable button in a user interface, a point in time on a calendar, or a blur effect on an image.

³³⁸ Objects are incarnations, or instances, of classes. Classes are the blueprints upon which objects are based.

³³⁶ Example adapted from Colin Moock, Essential ActionScript 3.0. (Sebastopol: O'Reilly. 2007).

was true of the Hakuturi mini-game and many other scenes in the game as a whole.

Class files were also used to dynamically add and remove certain objects during the gameplay. In contrast to the timeline based approach, where scenes are visible side-by-side in the Flash development interface, OOP requires the programmer to hold a mental map of the project structure in their head, or create a flowchart on paper, in order to understand how the parts talk to each other (although of course it is possible to have multiple interrelated class files open at the same time).

The final project is a hybrid that mainly uses a timeline based approach, but still talks to separate standalone files, such as the Hakuturi mini-game, and incorporates a number of class files (OOP style programming) along with the timeline assets.

One example of problem solving with ActionScript in the Hakuturi game involved using items known as Timer objects to move the player's piece along the game board, while still landing on each square on the way. The built-in Timer class is a way of repeating actions based on a time interval and specified repeat count, and this proved to be the ideal way to move the counter, by assigning the repeat count parameter to each roll of the die (itself a dynamic variable in ActionScript which can be any random number from one to six). The Timer then animated (tweened, in ActionScript terminology) the counter from one square of the board to the next, and stopped when the repeat count had been reached.

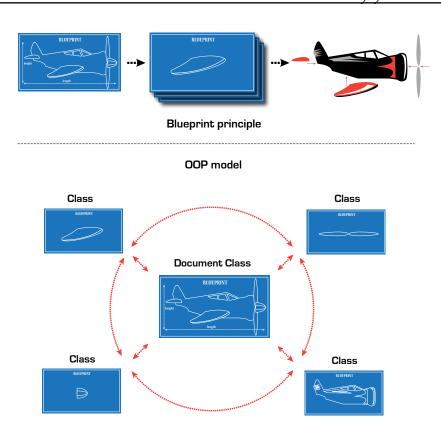


Figure XXI. A visual example of the OOP principle in practice



Figure XXII 432 lines of code written for this portion of the game $\,$

Figure XXII is a screen shot of some of the code that runs the Hakuturi game, including the code that sets up and executes this Timer, controls the animation of the counter, and also animates it back two spaces when an obstacle in the form of a Hakuturi is reached.

Appendix E: Production Diagram

A key part of my working process was my production diagram, a vital record of initial ideas and changes that occurred. As a general list of tasks, it doesn't include many other design decisions made over the course of the research. This diagram laid out tasks in production order for each media, but because the various transmedia components are interconnected and interdependant on each other, they were not necessarily completed in a strictly left-to-right sequence.

The game was the first portion to be largely completed; however, although deliberately designed to be finite, it continued to grow and expand in unexpected ways. For example, when I visited a 2013 exhibition of Aztec art at Te Papa (the National Museum of New Zealand), where human remains were on display, I noted the inclusion of water for visitors to use for the removal of tapu (according to Maori tikanga). I decided at a late stage to adopt this same approach for my urupa (graveyard) scene. Though both the urupa and the water supplied are virtual, the concept is sound.

The game couldn't be ultimately finished until a significant scene, the 'birth from the rock', was animated in the motion comic. This scene could then be edited and reversed to provide closure to the narrative inside the game. Similarly, in all three portions of the project, the reuse or modification of particular elements across the media meant that they had to be created to some extent simultaneously, and piecemeal.

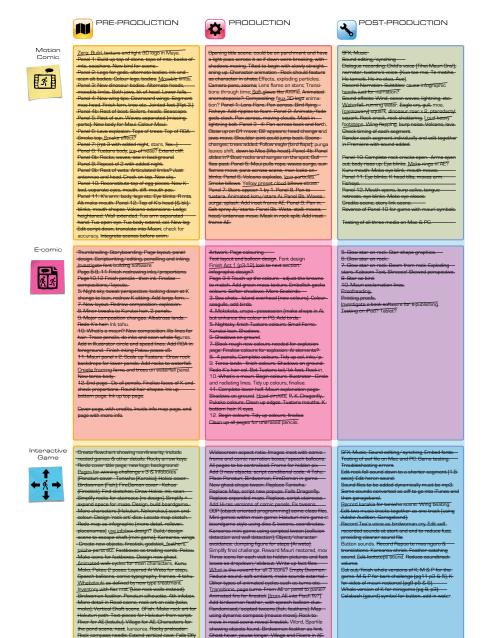


Figure XXIII. Production Diagram.

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Aarseth, Espen. "Genre Trouble: Narrativism and the Art of Simulation." In *First Person: New Media as Story, Performance, and Game*, edited by Noah Wardrup-Fruin and Pat Harrigan, 45-55. Cambridge, MA: MIT Press, 2004.

Albrecht, Chris. "The Rise of Motion Comics Online." Gigaom.com, July 30, 2008. http://gigaom.com/video/the-rise-of-motion-comics-online/ (accessed April 4, 2013).

Amerika, Mark. "Source Material Everywhere [[G.]Lit/ch RemiX]." In *Transgression* 2.0: *Media, Culture, and the Politics of a Digital Age*, edited by Ted Gournelos and David J Gunkel, 59. Continuum, 24 November 2011. EBL e-book.

Amini, Tina. "Walking Dead Creators Take On Fairy Tales." Stuff.co.nz News website, September 18, 2012. http://www.stuff.co.nz/technology/games/9147715/Walking-Dead-creators-take-on-fairy-tales (accessed December 5, 2013).

Barab, Sasha, Michael Thomas, Tyler Dodge, Robert Carteuax, and Hakan Tuzun. "Making Learning Fun: Quest Atlantis, A Game Without Guns." *Education Technology Research & Development* 53, no.1 (2005): 86-107.

Barlow, Cleve. *Tikanga Whakaaro: Key Concepts in Maori Culture*. Oxford: Oxford University Press, 1991.

Barrer, N.A.R. The Misty Isle. Christchurch: Whitcomb and Tombes, 1966.

Barrow, Terence. An Illustrated Guide to Maori Art. Auckland: Raupo, 2008.

Bendis, Brian Michael, and Alex Maleev. *Spider-Woman: Agent of S.W.O.R.D.* New York: Marvel, 2010.

Best, Elsdon. The Astronomical Knowledge of the Maori, Genuine and Empirical: Including Data Concerning Their Systems of Astrogeny, Astrolatry, and Natural Astrology, with Notes on Certain Other Natural Phenomena. Wellington: R.E. Owen, Govt. printer, 1955. http://nzetc.victoria.ac.nz/tm/scholarly/tei-BesAstro.html (accessed December 5, 2013).

Best, Elsdon. Games and Pastimes of the Māori: An Account of Various Exercises, Games and Pastimes of the Natives of New Zealand, as Practised in Former Times: Including Some

Information Concerning Their Vocal and Instrumental Music. Wellington: Government Printer, 1976.

Blank, Eugene W. "The Chinese Five Element Theory: A Comparison of the Aristotelian and Chinese Systems of Elements." *School Science and Mathematics* 45, no. 9 (March 2010): 866-867. http://onlinelibrary.wiley.com.ezproxy.aut.ac.nz/doi/10.1111/ssm.1945.45.issue-9/issuetoc (accessed 10 December 10, 2013).

Brown, Deidre. Maori Arts of the Gods. Auckland: Reed Books, 2005.

Brown, Harko. Nga Taonga Takaro: Maori Sports and Games. Auckland: Penguin, 2008.

Campbell, Joseph. The Hero With A Thousand Faces. London: Fontana Press, 1993.

Clark, Philip. Quantum: Rock of Ages. New York: Dreamchilde Press, 2004.

Cline, Gare. "PREVISUALIZATION Part ONE: What is Previs?" Creative Cow website. http://library.creativecow.net/cline_gare/Previs_intro/1 (accessed March 3, 2013).

Cornog, Martha, and Steve Raiteri. "Graphic Novels." Library Journal (March 2011): 15.

Cowan, James. *Fairy Folk Tales of the Maori*, 2nd ed. Auckland: Whitcombe and Tombs, 1930.

Craft, Dan. "Elf Help: Linguist Ensured Films' Dialogue Was Authentic." *Pantagraph*, April 28, 2005. http://ezproxy.aut.ac.nz/login?url=http://search.proquest.com/docview/252617318 accountid=8440 (accessed June 8, 2013).

Crawford, Chris, response to Espen Aarseth's "Genre Trouble: Narrativism and the Art of Simulation." In *First Person: New Media as Story, Performance, and Game*, edited by Noah Wardrup-Fruin and Pat Harrigan, 45. Cambridge, MA: MIT Press, 2004.

Davies, Alice. "The Stories We Tell Ourselves: History and Narrativity in Neil Gaiman's The Sandman: Thermidor." Lecture, Aussiecon 4, Melbourne, VIC, September 2, 2010, 1. http://www.academia.edu/1669978/The Stories We Tell Ourselves History and Narrativity in Neil Gaimans The Sandman Thermidor (accessed May 11, 2013).

Draper Carlson, Johanna. "What's the Point of a Motion Comic?" DVDs Worth Watching Blog. Entry posted August 23, 2009. http://comicsworthreading.com/2009/08/23/whats-the-point-of-a-motion-comic/ (accessed April 4, 2013).

Drate, Spencer, and Judith Salavetz, eds. Motion by Design. London: Laurence King, 2006.

Duder, Tessa, ed. Storylines: The Anthology. Auckland: Scholastic, 2003.

Edmonds, Stacey. "Transmedia Learning." *Training & Development in Australia* (December 2010): 36-38.

Edmonds, Stacey. "The Pointy End of the Point..." Edmonds Overdrive Blog. Entry posted May 28, 2010. http://edmondsoverdrive.me/?p=8 (accessed May 16, 2013).

Eggleston, David. "Earth and Spirit: Robyn Kahukiwa's Mauri Ora! Exhibition." *Art New Zealand*, no 134 (Winter 2010). http://www.art-newzealand.com/Issue105/robyn.htm (accessed June 12, 2013).

Erlbeck, Hana Hiraina. Footsteps of the Gods. Auckland: Reed Publishing, 1998.

Faulkner, Julie. "Once Upon a Time: Reclaiming Storytelling in Schools." *The Conversation*, March 30, 2013. http://theconversation.com/once-upon-a-time-reclaiming-storytelling-in-schools-11019 (accessed May 21, 2013).

Feldman, Luke. "Design a Flash-Based Videogame." *Computer Arts Projects* 121 (March 2009): 78-83.

Frasca, Gonzalo. "Simulation vs Narrative." In *The Video Game Theory Reader*, edited by Mark J.P. Wolf and Bernard Perron, 221-235. New York: Routledge, 2003.

de Freitas, Nancy. "Towards a Definition of Studio Documentation: Working Tool and Transparent Record." *Working Papers in Art and Design* 2 (2002). http://sitem.herts.ac.uk/artdes_research/papers/wpades/vol2/freitasfull.html (accessed April 2, 2012).

de Freitas, Nancy. "Activating a Research Context in Art and Design Practice." *International Journal for the Scholarship of Teaching and Learning* 1, no. 2 (July 2007): 1-15.

Fresno Calleja, Paloma and Patricia Grace. "An Interview with Patricia Grace." *Atlantis* 25, no. 6 (2003): 109-120.

Gilsenan, Jo-Anne, Jane Hopkirk and Isla Emery-Whittington. "Kai Whakaora Ngangahau – Maori Occupational Therapists' Collective Reasoning". In *Clinical Reasoning in Occupational Therapy: Controversies in Practice*, edited by Linda Robertson, 107-128. London: Wiley-Blackwell, 2012.

Goldman, William. *Which Lie Did I Tell? More Adventures in the Screen Trade*. London: Bloomsbury Publishing, 2000.

Gossage, Peter. *How Maui Slowed the Sun: Te Hopu a Maaui i a Te Raa*. Auckland: Landsdowne Press, 1982.

Green, Roger Lancelyn. *King Arthur and his Knights of the Round Table*. London: Penguin Books, 1953.

Haami, Bradford, ed. *He Waiata Onamata: Songs from the Past*. Auckland: Te Reo Rangatira Trust, 1998.

Harjo, Joy. "In Honor of Patricia Grace." World Literature Today, May 2009.

Hashimov, Elmar, and Brian McNely. "Left to Their Own Devices: Ad Hoc Genres and the Design of Transmedia Narratives." In *Proceedings of the 30th ACM International Conference on Design of Communication*, 252. Seattle: ACM, 2012.

Henderson, Mary. Star Wars: The Magic of Myth. New York: Bantam Books, 1997.

Hereniko, Vilsoni. "Interview with Patricia Grace." *Contemporary Pacific* 10, no. 1 (Spring 1998): 159-160.

Herr-Stephenson, Becky, Meryl Adler, and Erin Reilly. *T is for Transmedia: Learning Through Transmedia Play*. Los Angeles: USC Annenberg Innovation Lab/Joan Ganz Cooney Center, 2013. http://www.joanganzcooneycenter.org/wp-content/uploads/2013/03/t is for transmedia.pdf (accessed April 22, 2013).

Herron, Kelsey. "How 'Transmedia Play' Can Help Build 21st-Century Literacies." Common Sense Media, September 4, 2013. http://www.commonsensemedia.org/educators/blog/how-%E2%80%98transmedia-play%E2%80%99-can-help-build-21st-century-literacies (accessed September 15, 2013).

Herz, J. C. "Gaming the System: Multi-player Worlds Online." In *Game On: The History and Culture of Videogames*, 86-97. London: Laurence King Publishing, 2008.

Hodges, Jared, and Lindsay Cibos. *Digital Manga Workshop: An Artist's Guide to Creating Manga Illustrations on Your Computer.* New York: Harper Design, 2005.

Holt. Jill. "Narrative in Robyn Kahukiwa's 'Matatuhi': Culture and Narrative." *Papers: Explorations into Children's Literature* 16, no. 2 (December 2006): 130.

Huata, Ngamoni. The Rhythm and Life of Poi. Auckland: HarperCollins, 2000.

Ings, Welby. "Managing Heuristics as a Method of Inquiry in Autobiographical Graphic Design Theses." *iJade* 30, no. 2 (2011): 227-241.

Ings, Welby. "The Internal Pathway of the Self: Supervisory Implications of Autobiographical, Practice-led Ph.D. Design Theses." Paper presented at the Doctoral Education in Design Conference, Hong Kong, People's Republic of China, 2011. http://www.sd.polyu.edu.hk/DocEduDesign2011/proceeding.php (accessed November 7, 2013).

Izod, John. *Myth, Mind and the Screen: Understanding the Heroes of Our Times.* Cambridge: Cambridge University Press, 2001.

Jacob, Mary Jane. "Experience as Thinking." In *Art as a Thinking Process*, edited by Mara Ambrožic^{*} and Angela Vettese. Berlin: Sternberg Press, 2013.

Jenkins, Henry. Introduction to *T is for Transmedia: Learning Through Transmedia Play*, by Becky Herr-Stephenson, Meryl Adler, and Erin Reilly. Los Angeles: USC Annenberg Innovation Lab/Joan Ganz Cooney Center, 2013. http://www.joanganzcooneycenter.org/wp-content/uploads/2013/03/t is for transmedia.pdf (accessed April 22, 2013).

Jenkins, Henry. "Transmedia Storytelling: Moving Characters From Books to Films to

Videogames Can Make Them Stronger And More Compelling." *Technology Review* (2003). http://www.technologyreview.com/biotech/13052/ (accessed May 16, 2013).

Jenkins, Henry. *Convergence Culture: Where Old and New Media Collide*. New York: New York University Press, 2006.

Jenkins, Henry. "Game Design in Narrative Architecture." In *First Person: New Media as Story Performance, and Game*, edited by Noah Wardrup-Fruin and Pat Harrigan. Cambridge, MA: MIT Press, 2004.

Kahukiwa, Robyn. Supa Heroes: Te Wero. Rotorua: Mauri Tu, 2000.

Kahukiwa, Robyn, Hinemoa Hilliard, Edward Lucie-Smith, and Jonathan Mane-Wheoki. *The Art of Robyn Kahukiwa*. Auckland: Reed Books, 2005.

Kahukiwa, Robyn, and Patricia Grace. *Wahine Toa: Women of Maori Myth*. Auckland: Viking Pacific, 1991.

Kahukiwa, Robyn, and Roma Potiki. *Oriori: A Maori Child is Born – From Conception to Birth.* Auckland: Tandem Press, 1999.

Kibuishi, Kazu, ed. Flight. Vol 1. New York: Villard Books, 2007.

King, Jeanette Margaret. "Eke Ki Runga i te Waka: The Use of Dominant Metaphors By Newly-Fluent Māori Speakers in Historical Perspective." PhD diss., University of Canterbury, 2007.

Koike, Kazuo. Lone Wolf and Cub, Vol. 1: Assassin's Road. Milwaukee, Dark Horse Comics, 2000.

Krasner, Jon. *Motion Graphic Design: Applied History and Aesthestics*. Burlington, MA: Elsevier, 2008.

Laetz, Brian, and Joshua J. Johnston. "What is Fantasy?" *Philosophy and Literature* 32, no. 1 (April 2008). http://muse.jhu.edu/login?auth=0&type=summary&url=/journals/philosophy and https://increase.jhu.edu/login?auth=0&type=summary&url=/journals/philosophy and https://increase.jhu.edu/login?auth=0&type=summary&url=/journals/philosophy and lttps://increase.jhu.edu/login?auth=0.2013).

Lang, Andreas. "Report from the Pal Zone." In *Game On: The History and Culture of Videogames*, edited by Lucien King, 46-55. London: Laurence King, 2008.

Lapp, D., T. Wolsey, D. Fisher, and N. Frey. "Graphic Novels: What Elementary Teachers Think About Their Instructional Value." *Journal Of Education* 192, no. 1 (2012): 23-35.

Lilley, Spencer. "Introducing 'Awareness of Indigenous Knowledge Paradigms': IFLA Core Elements." Paper presented at the IFLA Presidential Meeting: *Indigenous Knowledges: Local Priorities, Global Contexts*, Vancouver, BC, April 12-14, 2012.

London School of Economics. "How Well Do 'Facts' Travel: About the Project." LSE Economic History, March 7, 2011. http://www2.lse.ac.uk/economicHistory/Research/facts/AboutTheProject.aspx (accessed May 13, 2013).

Mahuta, Dean. "Maori in Video Games – A Digital Identity." Special issue, *Te Kaharoa* 5 (2012): 126-134.

Maleev, Alex, afterword to *Spider-Woman: Agent of S.W.O.R.D.*, by Brian Michael Bendis and Alex Maleev. New York: Marvel, 2010.

Maleev, Alex. "Marvel Hotline: Alex Maleev & SPIDER-WOMAN." Marvel website. Video file, 2:07. http://marvel.com/videos/watch/891/marvel hotline alex maleev spider-woman (accessed June 1, 2013).

Manovich, Lev. *Software Takes Command*. International Texts in Critical Media Aesthetics 5. New York: Bloomsbury Academic, 2013. http://issuu.com/bloomsburypublishing/docs/9781623566722 web (accessed December 4, 2013).

Manovich, Lev. "Deep Remixability." Artifact 1, no. 2 (2007): 76-84.

Manovich, Lev. "Remixability and Modularity, 2005." Manovich.net website. http://www.manovich.net/articles.php (accessed September 4, 2013).

Maori.org.nz. "Pepeha - What Is It?". http://www.maori.org.nz/tikanga/default. php?pid=sp72&parent=71 (accessed August 20, 2013).

Marshall, Lindsey, and Lester Meachem. How to Use Images. London: Laurence King, 2010.

Marvel Entertainment. "Spider-Woman Motion Comic: Behind the Scenes." YouTube video file, 2:20. http://www.youtube.com/watch?v=7iuKm6FLIwg (accessed December 6, 2013).

Masuyama. "Pokemon as Japanese Culture." In *Game On: The History and Culture of Videogames*, edited by Lucien King, 34-43. London: Laurence King Publishing, 2008.

Mayhew, Sara E. "Legend of the Ztarr: The Skeptic Epic." *Skeptical Inquirer* (March-April 2012): 34-37.

McCloud, Scott. *Understanding Comics: The Invisible Art*. Northampton, MA: Kitchen Sink Press, 1993.

McKee, Robert. Story: Substance, Structure, Style and the Principles of Screenwriting. New York: Methuen, 1999.

 $\label{eq:mcRae} \mbox{McRae, Emma, ed., $Game Masters: The Exhibition. Wellington: Te Papa Press, 2012.}$

Mead, Hirini Moko, and Neil Grove. *Nga Pepeha a Nga Tupuna*. Wellington: Victoria University Press, 2001.

Mead, Hirini Moko. *Tikanga Maori: Living by Maori Values*. Wellington: Huia Publishers, 2003.

Mitcalfe, Barry. *Maori Poetry: The Singing Word*. Wellington: Victoria University Press, 1974.

Mitira, Tiaki Hikawera. Takitimu. Wellington: Reed Publishing, 1972.

Moock, Colin. Essential ActionScript 3.0. Sebastopol: O'Reilly. 2007.

Morrison, Grant. JLA: Rock of Ages. New York, DC Comics, 1998.

MotionPlus Design. "What is Motion Design?" MotionPlus Design website video introduction. http://motion-plus-design.com/english/ (accessed July 14, 2012).

Moustakas, Clark. Heuristic Research: Design, Methodology, and Application. Newbury Park:

Sage Publications, 1990.

Murphy, James. "Sequential Art: History and Legacy." Ormond Beach, Florida: Ormond Memorial Art Museum and Gardens, Fall 2013. http://www.ormondartmuseum.org/ history%20handout.pdf (accessed October 16, 2013).

Murray, Janet H. "Transcending Transmedia: Emerging Story Telling Structures for the Emerging Convergence Platforms." In *Proceedings of the 10th European Conference on Interactive TV and Video (EuroiTV '12)*, 1-6. New York: ACM, 2012. doi: 10.1145/2325616.2325618.

Murray, Janet H. "Toward a Cultural Theory of Gaming: Digital Games and the Co-Evolution of Media, Mind, and Culture." *Popular Communication* 4, no. 3 (2006): 185-202.

Navarro, A. The 10 Best Games in the World. London: Thames and Hudson, 2011.

Navas, Eduardo. "Regressive and Reflexive Mashups in Sampling Culture." In *Mashup Cultures*, edited by Stefan Sonvilla-Weiss, 157-177. New York: Springer, 2010.

Nitsche, Michael. Video Game Spaces: Image, Play and Structure in 3D Game Worlds. MIT Press: Massachusetts, 2008.

Orbell, Margaret. *The Illustrated Encyclopaedia of Maori Myth and Legend*. Christchurch: Canterbury University Press, 1996.

Paama-Pengally, Julie. *Maori Art and Design: Weaving, Painting Carving and Architecture*. Auckland: New Holland, 2010.

Patterson, John. Exploring Maori Values. Palmerston North: Dumore Press, 1992.

Pearce, Celia. "Story as PlaySpace." In *Game On: The History and Culture of Videogames*, edited by Lucien King, 112-119. London: Laurence King, 2008.

Pennington, Adrian. "Transmedia: Starring Role." New Media Age, September 9, 2010.

Perkowitz, Sidney. "The Six Elements: Visions of a Complex Universe." *Leonardo* 43, no. 2 (April 2010): 208-211.

Phillips, Andrea. A Creator's Guide to Transmedia Storytelling: How to Captivate and Engage Audiences Across Multiple Platforms. New York: McGraw-Hill Books, 2012.

Poole, Steven. "Character Forming." In *Game On: The History and Culture of Videogames*, edited by Lucien King, 76-85. London: Laurence King, 2008.

Porter, M.J., D.L. Larson, A. Harthcock, and K.B. Nellis. "Re(de)fining Narrative Events: Examining Television Narrative Structure." *Journal of Popular Film and Television* 30, no. 1 (Spring 2002): 23-30.

Quesada, Joe. "Spider-Woman Motion Comic: Behind the Scene." YouTube video file, 0:34. http://www.youtube.com/watch?v=7iuKm6FLIwg (accessed August 18, 2013).

Rabiger, Michael. Directing: Film Techniques and Aesthetics. Burlington, MA: Elsevier, 2008.

Reed, A.W., and Buddy Mikaere. *Taonga Tuku Iho: An Illustrated Encyclopedia of Traditional Maori Life*. Auckland: New Holland, 2002.

Reed, A.W. Treasury of Maori Folklore. Wellington: A.H. & A.W. Reed, 1963.

Robinson, Samuel Timoti. Tohunga: The Revival. Auckland: Reed Publishing, 2005.

Rosenberg, K. "Movie, Linguistics Fans Learn About Middle Earth Language." *Pantagraph*, May 1, 2005. http://ezproxy.aut.ac.nz/login?url=http://search.proquest.com/docview/25257414?accountid=8440 (accessed June 8, 2013).

Rouse, Richard. "Game Design - Theory And Practice: The Elements of Gameplay." *Gamasutra*, June 27, 2001. http://www.gamasutra.com/view/feature/131472/game_design_theory_and_practice_.php?page=2 (accessed May 24, 2013).

Royal, Charles. "Te Whare Tapere: Towards a New Model for Māori Performing Arts." PhD diss., Victoria University of Wellington, 1998. http://www.charles-royal.com/default.aspx?Page=129 (accessed August 24, 2013).

Royal, Te Ahukaramū Charles. "Te Whare Tapere: Towards a Model for Māori and/or Tribal Theatre." Lecture, Stout Centre, Victoria University of Wellington, May 14, 1997. http://www.

orotokare.org.nz/Default.aspx?page=2668 (accessed September 2, 2013).

Ryan, P.M. The Reed Dictionary of Modern Maori. Auckland: Reed Publishing, 1997.

Sabin, Roger. Comics, Comix and Graphic Novels: A History of Comic Art. London: Phaedon Press, 1996.

Salkowitz, Rob. Comic-Con and the Business of Pop Culture: What the World's Wildest Trade Show Can Tell Us About the Future of Entertainment. New York: McGraw-Hill, 2012.

Sanders, Tao Tao Liu. *Dragons, Gods and Spirits from Chinese Mythology*. Sydney, NSW: Hodder and Stoughton, 1980.

Schell, Jesse. *The Art of Game Design: A Book of Lenses*. Burlington MA: Morgan Kaufmann, 2008.

Shippey, Tom. J.R.R. Tolkien: Author of the Century. London: HarperCollins, 2001.

Simmons, David. Ta Moko: The Art of Maori Tattoo. Auckland: Reed Books, 1986.

Simmons, David. *Meeting-houses of Ngati Porou o te Tai Rawhiti: An Illustrated Guide*. Auckland: Reed Books, 2006.

Smith, Corinne ."The Difference Between Maori Design and Western Design?" *Design Assembly: Conversations on Graphic Design*, August 7, 2012. http://www.designassembly.org. nz/articles/maori-and-western-design (accessed August 21, 2013).

Smith, Craig. "Motion Comics: Modes of Adaptation and the Issue of Authenticity." *Animation Practice, Process & Production* 1, no. 2 (June 2012): 357-378.

Smith, Craig. "SDCC Mailbag: An Academic View of Motion Comics." In Patrick Killik's OortCloud Comics Blog. Entry posted July 27, 2012. http://oortcloudcomics.com/sdcc-mailbag-another-point-of-view-on-motion-comics/ (accessed April 6, 2013).

Smith, Linda. "Methodology." Ngā Pae o te Māramatanga, on Rangahau Maori website. Video file. 0:43. Filmed November 2006. http://www.rangahau.co.nz/video.php?videoname=linda/methodology_linda&title=linda (accessed December 8, 2013).

Spiegelman, Art. Metamaus. New York: Pantheon Books, 2011.

Talon, Durwan S. *Panel Discussions: Design in Sequential Art Storytelling.* Raleigh: UC TwoMorrows Publishing, 2002.

Taylor, Alan. Maori Folk Art. Auckland: Century Hutchison, 1988.

Te Awekotuku, Ngahuia. Mau Moko: The World of Maori Tattoo. Auckland: Viking, 2007.

Te Papa Tongarewa Museum of New Zealand. *Mātauranga Māori and Museum Practice: A Discussion*. Prepared for Te Papa National Services - Te Paerangi, by Charles Royal. Version 4, January 2007. http://www.mkta.co.nz/assets/mmmuseumpracticeversion4.pdf (accessed November 15, 2013).

Tolkien, J.R.R. Sir Gawain and the Green Knight. London: HarperCollins, 1997.

Tolkien, J.R.R. The Hobbit. London: George Allen & Unwin, 1942.

Tolkien, J.R.R. The Lord of the Rings, 2nd ed. George Allen & Unwin Ltd, 1966.

University of Otago. "Mihimihi/Pepeha". Maori at Otago. http://maori.otago.ac.nz/reotikanga-treaty/te-reo/mihi (accessed 20 August, 2013).

Vogler, Christopher. *The Writer's Journey: Mythic Structure For Writers*. California: M. Wiese Productions, 1998.

Wagner, Hank, Christopher Golden and Stephen R. Bisette. *Prince of Stories: The Many Worlds of Neil Gaiman*. New York: St Martins Press, 2008.

Waka Huia. "Ngā Wai ō Horotiu Marae at Auckland University of Technology." YouTube video file, 19:54. http://www.youtube.com/watch?v=4TmtQjRUwtc; http://www.youtube.com/watch?NR=1&v=n1bsano-ZUg&feature=endscreen (accessed June 2, 2013).

Waid, Mark. "TOC 2013: Reinventing Comics And Graphic Novels For Digital." YouTube video file. http://www.youtube.com/watch?v=vPikusZm2As (accessed April 4, 2013).

Waipara, Zak. "Recollect: Remix and Remixability." Honours' exegesis, AUT University, 2012.

Walker, Scott. "The Narrative (and Collaborative) Gutter of Transmedia Storytelling." MetaScott Blog. Entry posted September 7, 2010. http://metascott.com/2010/07/19/the-narrative-and-collaborative-gutter-of-transmedia/ (accessed April 4, 2013).

Weaver, Tyler. Comics for Film, Games, and Animation: Using Comics to Construct Your Transmedia Storyworld. Burlington, MA: Focal Press, 2013.

Wecks, Eric. "Technology and Storytelling, Part 1: Transmedia World-Building." Geek Dad Blog on Wired.com. Entry posted October 19, 2012. http://www.wired.com/geekdad/2012/10/technology-and-storytelling-1/ (accessed May 4, 2013).

Wecks, Erik. "Technology and Storytelling Part 2: Transmedia Novels? Still 5 Minutes in the Future." GeekDad Blog on Wired.com. Entry posted October 26, 2012. http://www.wired.com/geekdad/2012/10/transmedia-novels/ (accessed June 6, 2013).

Williams, Herbert W. *A Dictionary of the Maori Language*. Wellington: A. R. Shearer, Government Printer, 1975.

Williams, Joe. "Confessions of a Native Judge: Reflections on the Role of Transitional Justice in the Transformation of Indigeneity." In *Dialogue about Land Justice: Papers from the National Native Title Conference*, edited by Lisa Strelein. Canberra, ACT: Aboriginal Studies Press, 2010: 19-32.

Wilson, T.D. "The Nonsense of 'Knowledge Management." *Information Research* 8, no. 1 (October 2002). http://informationr.net/ir/8-1/paper144.html (accessed June 25, 2013).

Woolman, Matt. *Motion Design: Moving Graphics for Television, Music Video, Cinema, and Digital Interfaces.* Switzerland: Rotovision, 2004.