Table of Contents

Attestation of Authorship/Intellectual Property
Note/Acknowledgements ...............................................................3
Abstract ..........................................................................................4
Introduction ....................................................................................5
1. Positioning the Researcher ...........................................................6
2. Contextual and Cultural Frameworks ........................................11
   2.1 Remix and Remixability .......................................................12
   2.2 Transmedia .........................................................................13
   2.3 Te Ao Maori & Transmedia ..................................................15
   2.4 Original Story vs Re-telling Practice .................................16
   2.5 Genre & Audience .............................................................18
   2.6 Quest Narrative .................................................................18
   2.7 Comics ................................................................................19
      2.7.1 Comics: via Maori Lens ............................................19
      2.7.2 Comics: Motion Comics ............................................21
   2.8 Games ..................................................................................22
      2.8.1 Games: via Maori Lens .............................................22
      2.8.2 Games: Interactivity, Narrative & Non-linearity ..........24
   2.9 Summary ............................................................................26
3. Research Methods ........................................................................27
   3.1 Heuristic Inquiry, Rangahau Maori 
      & Active Documentation......................................................31
4. Practical and Technical Methodology .........................................35
   4.1 Style....................................................................................36
   4.2 Motion Comic .......................................................................37
   4.3 E-comic .............................................................................39
   4.4 Game ..................................................................................40
   4.5 Scope ..................................................................................40
   4.6 Transmedia Play ...................................................................45
5. Contemplations ...........................................................................47
   5.1 Remixability Revisited ........................................................48
   5.2 Cultural Transmission ........................................................49
   5.3 Conclusions .........................................................................51
Appendices
A. Origin, development and adaptation of Otea ................................52
   An Origin Story ........................................................................52
   Development of the Story ......................................................54
   Adaptation of Story to Game ................................................58
B. Narrative of Experience ...............................................................61
C. A Multi-form Maori Narrative ..................................................68
D. Technical Breakdown Examples ...............................................69
   Motion Comic: Title scene and scene 1 .................................69
   E-comic: Page 5 ......................................................................70
   Game: Hakuturi mini-game ..................................................71
E. Production Diagram ......................................................................76
Table of Images ..............................................................................77
Table of Images: Appendices .........................................................78
Bibliography .......................................................................................79
**Attestation of Authorship**

I hereby 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.

**Intellectual Property**

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_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 Rangiataea, my very own nature sprite (...which I guess makes me a wrinkly old tuatara).
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 Maoritanga 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.

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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
The pepeha above (figure 1) is a statement of Maori tribal identity, a traditional way of introducing oneself, and an affirmation of one’s right to speak based upon ancestral connection or whakapapa to forebears and geography. “Whakapapa is the genealogical descent of all living things from the Gods to the present time.”

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.” 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. 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).

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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.


The story involves two main protagonists, 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 entertainment, allowing the transmission of this kind of knowledge, an intersection of education, entertainment and empowerment. 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.

The idea of language acquisition through popular entertainment and storytelling is inspired in part by Tolkien’s *Lord of the Rings* and his invented Elvish languages. 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, and sense of wellbeing and empowerment I gained by undertaking this journey (see figure 4).

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

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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.


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.

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.

2. CONTEXTUAL & CULTURAL FRAMEWORKS
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). 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. 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. Lev Manovich took the idea further, and coined the term ‘deep remixability’ – the creation of a new hybrid visual language that permeates our entire culture, “...or rather numerous languages that share the basic logic of remixability”,

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20 ‘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).
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. Recollect was a proof of concept, 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. In many ways, all art is born out of cultural remix; 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 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.” 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” - 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. 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).
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”.34 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”.35 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

“As 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

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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.
content differently across the divergent media. 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...”.

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.” 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.”

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.” Gomez claims that transmedia builds brand mythology, encouraging participation and the extension of the brand’s narrative by the target audience.

Some producers view their audience in terms of participatory consumers, who are “…aware of their ability to create, co-create, modulate and propagate content.” 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.

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

“Transmedia, done well, can contribute to an immersive, responsive,”

46 Herr-Stevenson, Adler, & Reilly, T is for Transmedia, 10.
learner-centered learning environment rich with information and linked to children’s existing knowledge and experiences.”

Key transmedia principles of learning via play are set out in figure 7.

### 2.3 Te Ao Maori and Transmedia

Despite the recent trend for transmedia in creative industries, 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.”

This is a feature of pre-literate cultures, but also continued into post-literate societies. The same might be said of *te ao Maori*, where the same mythic stories have always been told across a variety of artforms. 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.”

Since everything in traditional Maori society was interconnected, 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

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51 Herr-Stephenson, Adler, and Reilly, *T is for Transmedia*, 10.
52 Adapted from Herr-Stephenson, Adler, and Reilly, *T is for Transmedia*, 2.
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.
57 The Maori world.
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.”

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.” He explains this
practice as “...recursive fiction that draws upon existing characters.”

Davies describes Gaiman’s work as “...fiction which interpenetrates other
secondary or fictional worlds.” This definition illustrates the idea of connecting
existing stories with new material. In literary terms this could be considered
a kind of remix methodology. 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*. 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.”

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).

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

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62 Alice Davies, “The Stories We Tell Ourselves: History and Narrativity in Neil Gaiman’s The Sandman:
Thermidor” (lecture, Auscon 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](http://www.academia.edu/1669978/The_Stories_We_Tell_Ourselves_History_and_Narrativity_in_Neil_Gaimans_The_Sandman_Thermidor) (accessed
May 11, 2013).
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.
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*, 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.” The term transmedia is used here because Kahukiwa’s goal was to create these characters with “…stories, CD-ROMS and action figures…” 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.”

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. It is possible that some Maori may be uncomfortable or disagree with the approach I have taken, given that, as

Patricia Grace notes,

“...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...”

The key is to walk a careful line between honouring the precepts of the cultural past while embracing elements that the contemporary world offers, 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.”

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.”

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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.
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.

Laetz and Johnston describe the genre’s audience:

“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).

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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.
82 Laetz and Johnston, “What is Fantasy?,” 164.
83 Jenkins, Convergence Culture, 122.
84 Laetz and Johnston, “What is Fantasy?,” 169.
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. What makes the quest form compelling is that it is often a familiar metaphorical life journey, making it naturally attractive to an audience. Robert McKee believes all stories are simply versions of the same story since time immemorial – and that story is the quest, which Joseph Campbell calls the monomyth. Campbell developed this concept from studying comparative cultural mythologies, including Maori cosmogonies.

The Maui cycle is a classic Maori (and Polynesian) 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 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.”

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. There are no clear equivalents for this artform in te ao Maori, but parallels might be drawn between the way ancient hieroglyphic narratives, wall tapestries and church windows have been defined as proto-comics.

Maori employed visual storytelling of their own. In carved, stylised wooden
forms, historical events might be depicted side by side, or ancestors and descendants juxtaposed in the same carving, showing a familial link.\(^{98}\) Today we might read this juxtaposition as a chronological shift in perspective, though in Maori belief the ancestors are ever-present.\(^{99}\) 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 \textit{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 information\(^{101}\) are the only common elements between \textit{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,\(^{108}\) 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, \textit{Tikanga Maori}, 255. “According to traditional beliefs the source of woodcarving traces back either to a mythical otherworldly ancestor or to a God.”

\(^{99}\) Orbell, \textit{The Illustrated Encyclopaedia}, 36.

\(^{100}\) David Simmons, \textit{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, \textit{Mau Moko: The World of Maori Tattoo} (Auckland: Viking, 2007), 8

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

\(^{103}\) Alan Taylor, \textit{Maori Folk Art} (Auckland: Century Hutchison, 1988), 3.

\(^{104}\) Ibid., 3.

\(^{105}\) Paama-Pengally, \textit{Maori Art and Design}, 58.


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.113 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

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109 McCloud, Understanding Comics, 22.
113 “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-transmedias/ (accessed April 4, 2013).
114 Usually printed comics, remixed and/or adapted using the features of motion graphics.
brand, making motion comics a natural discipline for transmedia use.

Though this new medium is not without its detractors, 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?”

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.

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”. 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. Charles Royal names Rehia as a “…deity under who all amusements and entertainment were said to be conducted.”

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.”

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

123 Albrecht, “The Rise of Motion Comics Online.”
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.
Games, pastimes and feats of skill feature throughout Maori myths and legends. Storytelling was used to pass on knowledge about games.\textsuperscript{129} For example, many games feature in the story of \textit{Hutu and Pare}, such as darts, spinning tops and a kind of catapult swing for jumping.\textsuperscript{130} In traditional Maori society, there existed a category of game called \textit{kai}.\textsuperscript{131} \textit{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 \textit{kai}.\textsuperscript{132} Brown believes this class of game required abstract cognitive ability and intelligence,\textsuperscript{133} such as the skills described by Marsden: “quick conception, retentive memory and great reflection and observation.”\textsuperscript{134}

One example is the strategy game \textit{Mu Torere}, a draughts-style boardgame using pegs and a star-shaped base (see figure 9).\textsuperscript{135} According to Navarro, the game seems easy but is very difficult to win (a draw is the usual result), and there were no Pakeha\textsuperscript{136} winners of Mu Torere until 1850.\textsuperscript{137}

In Murray’s view, “...cultural evolution requires not only creative invention but also, and just as importantly, faithful social transmission”.\textsuperscript{138} Within a mimetic culture game play is one means of transmitting such knowledge.\textsuperscript{139}

The \textit{Hutu and Pare} legend emphasises skill at the game of darts as well as ingenuity (in creating a means of escape via a catapult game) as traits to emulate.

Murray describes games’ formal structures and their rule systems as cultural ratchets.\textsuperscript{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

\begin{figure}
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\caption{A revived traditional Maori game: \textit{Mu Torere}}
\end{figure}

\textsuperscript{129} Brown, \textit{Nga Taonga Takaro}, 13.
\textsuperscript{130} Orbell, \textit{The Illustrated Encyclopaedia}, 134-135.
\textsuperscript{131} Brown, \textit{Nga Taonga Takaro}, 13. Also known as Tupea.
\textsuperscript{132} Orbell, \textit{The Illustrated Encyclopaedia}, 248. Sacred stones were sometimes swallowed after memory committal sessions to help seal knowledge in the stomach area.
\textsuperscript{133} Brown, \textit{Nga Taonga Takaro}, 13.
\textsuperscript{134} Marsden, in Brown, \textit{Nga Taonga Takaro}, 14.
\textsuperscript{135} Brown, \textit{Nga Taonga Takaro}, 26. Traditional Maori games have undergone a revival in recent years, including \textit{Mu Torere} and \textit{Ki-o-rahi} (a type of indigenous ball sport).
\textsuperscript{136} A.W. Reed and Buddy Mikaere, \textit{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 \textit{Mu Torere} with all New Zealand as the prize, which Grey declined.
\textsuperscript{137} A. Navarro, \textit{The 10 Best Games in the World} (London: Thames and Hudson, 2011).
\textsuperscript{139} Ibid.
\textsuperscript{140} Ibid.
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.

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

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

Anecdotal observation of my own daughter’s ability 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.
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 pathways\(^{159}\) still 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

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\(^{153}\) Steven Poole, “Character Forming,” in *Game On: The History and Culture of Videogames*, ed. Lucien King (London: Laurence King, 2008), 78.


\(^{155}\) Jenkins, “Game Design in Narrative Architecture,” 122.

\(^{156}\) Murray, “Toward a Cultural Theory,” 195.


\(^{158}\) Schell, *The Art of Game Design*, 284.

\(^{159}\) Jenkins, “Game Design in Narrative Architecture,” 119. Sometimes referred to as ‘choose-your-own adventure.’


\(^{163}\) Schell, *The Art of Game Design*, 41.

\(^{164}\) Aarseth, “Genre Trouble”, 47.
believes any game is "a structured framework for spontaneous play" 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).

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).
03. RESEARCH METHODS
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 Polanyi, “a chemist turned philosopher of science” 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. Between these two opposites exists a theoretical bridge of implicit knowledge. 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.

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. Screenwriter William Goldman describes the process of making unforeseen connections between story material as completely instinctive, without the aid of logic.

Since heuristics relies on “deeply constituted experience, reflective search, sensitive overview and discovery,” this methodology has much in common with the intuitive connection-making approach to my Honours project that...
hinged very much on accidental discovery and chance juxtaposition. 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,” whereby Maori employ culturally-meaningful models. Helpfully, whakapapa (already employed as a thematic linking principle) is discussed by Linda Smith as one possible kaupapa or Māori model available to Maori researchers. Whakapapa is described by Dr Spencer Lilley as being both tacit and explicit knowledge. Lilley expounds five key ideas related to whakapapa located inside these frameworks, as explained in figure 15.

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Barlow’s summation that “…whakapapa is a basis for the organization of knowledge in respect of the creation and development of all things” 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. Te Kore is followed by Te Po (the night). Out of...
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

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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.


190 ibid., 19. Interestingly, royal includes religious knowledge on this list, which, if dealing with revelation, is a different category of knowledge altogether.
In my design process, I imagine employing tacit, implicit and explicit knowledge approaches in problem solving. For example, in Recollect, 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 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

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191 Waipara, “Recollect.”
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

3 Research Methods

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 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

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193 Mary Jane Jacob, “Experience as Thinking,” 103.
3 Research Methods

Knowledge creation processes are:

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Active is that which is made and passive that which is experienced. The testing of the project is a way of experiencing what has been created and informs the next creative step.

Concerned with articulating connections between ideas and ways of knowing. This project comfortably employs Western and Maori knowledge approaches, including whakapapa which connects all things.

The project is based on the triadic approach of education, entertainment and empowerment and has underlying Maori values or tikanga, such as matasuranga, whakapapa, te reo Maori.

Leads to new work, as the Honours led to this Masters. Also project is a spark for children’s own inquiries e.g. the natural world, the Maori world, te reo Maori, the comic art form, etc.

Builds knowledge from awareness, in the way that active documentation requires reflecting upon ones reflections, or thinking about thinking, referred to as metacognition.

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.\(^{200}\)

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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://zakwapara.blogspot.co.nz/](http://zakwapara.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.
04. PRACTICAL & TECHNICAL METHODOLOGY
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.” As a young adult I was influenced by Japanese anime, and eventually Japanese manga, which emphasises mood, slower pacing, and sometimes exaggeration of facial characteristics.

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

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. 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

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201 Idiom, exhorting someone to 'go for it'. Literally ‘paddle your canoe!’
204 Sabin, *Comics, Comix and Graphic Novels*, 228.
206 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 Maui i a Te Rau* (Auckland: Landsdowne Press, 1982).
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;209 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-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.


210 Ibid.

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.

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212 Waipara, “Recollect”, 16.
213 I once had to read it aloud to an audience of school children.
214 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.
216 Oral storytelling 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.
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 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

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The term ‘pre-visualisation’, as well as the practice, is borrowed from the animation pipeline\(^{227}\) 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.*

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


Multiple ancillary 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).
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.”

But a game does not have to be complex to generate a lot of attention...”

Requiring only a computer and Adobe Flash Player, the point-and-click navigation, which more closely resembles a page-turning book-style experience, 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,

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232 And so ties in more closely to the e-comic and by extension the motion comic.
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.
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 transmedia context this is enhanced by the use of other sensory cues, such as audio.

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:

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.
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...”  

Applied to my own project, the motion comic prologue contains filmic elements, such as motion, a soundtrack, and visual effects. Cinema is still incredibly immersive, if not necessarily participatory. 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. 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.

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238 Jenkins, Convergence Culture, 99.
239 Frank Rose, in Weaver, Comics for Films, 213.
240 Weaver, Comics for Films, 215.
“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).

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242 Weaver, Comics for Films, 157

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

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 facilitate 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.

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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.


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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.
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, 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.”

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 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.” 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

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245 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.”

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:

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.

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

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 enthusiasm 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.

5 Contemplations
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). 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. 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. Because one Maori legend I read had described a woman birthed by a mountain I had an early idea that perhaps the mountain in my story birthed the stone egg. My idea of the egg's origin would eventually evolve in the final story.

When the Storylines organisation 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 article provided the catalyst for

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

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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 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.

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’.262

The birth is of the main protagonist, 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’.267 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.


263 Duder, ed., Storylines, 94.

264 Orbell, The Illustrated Encyclopaedia, 38.


266 Ibid., 28.


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


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. 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.

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 Commmunications. 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. 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. *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 formation reveals this new danger, and four comets blast outward from the shattered Rock. This imbalance is the inciting incident to create a chain of events and subsequent

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273 Duder, ed., *Storylines*.
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 days of the month.283

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 similar scheme to the classical Greek conception of the four elements.287

279 Orbell, The Illustrated Encyclopaedia, 31.
280 Ibid., 32.
282 Orbell, The Illustrated Encyclopaedia, 154.
284 Shippey, J.R.R. Tolkien, 110.
286 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.
Robinson cites two Maori tohunga who spoke in terms of these elements in a Maori context: Pou Taare Tikao said of an 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 initially 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 tororo (albatross) called Pakauoro (Long Wing). Pakauoro 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 Pakauoro fulfils this function, exhorting Mokotawhito and Kurutai to undertake the quest.

“What’s a mauri?” Kurutai asks Pakauoro 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

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.
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

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298 Orbell, The Illustrated Encyclopaedia, 117.
299 Ibid., 118.
300 Reed, Treasury of Maori Folklore, 226.
301 Ibid., 207.
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,
on, over) equates to South - an absolute paradigm shift in thinking about location and direction.\footnote{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).} Maps are often a staple feature of games and fantasy stories.\footnote{Nick Stockton, “Fantastic Cartography Tips From the Guy Who Mapped Game of Thrones,” Wired.com, March 12, 2013, \url{http://www.wired.com/wiredscience/2013/12/fantasy-maps-cartography-tips-jonatha-roberts-game-of-thrones/} (accessed December 5, 2013).}

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. Pouamamu (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

<table>
<thead>
<tr>
<th>Naumai! Haeremaia!</th>
<th>[welcome]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meinga meinga!</td>
<td>[excellent]</td>
</tr>
<tr>
<td>Tau ke!</td>
<td>[great]</td>
</tr>
<tr>
<td>Ka mau te wehi!</td>
<td>[awesome]</td>
</tr>
<tr>
<td>Tumeke!</td>
<td>[well done]</td>
</tr>
<tr>
<td>Haere tonu!</td>
<td>[keep going]</td>
</tr>
<tr>
<td>E hoa</td>
<td>[used to address a friend]</td>
</tr>
<tr>
<td>Aue!</td>
<td>[exclamation]</td>
</tr>
<tr>
<td>Aue! Taukiri e!</td>
<td>[Oh no! Calamity!]</td>
</tr>
<tr>
<td>Pouri atu!</td>
<td>[Go away!]</td>
</tr>
<tr>
<td>Nga mihinui!</td>
<td>[Congratulations!]</td>
</tr>
<tr>
<td>Kia mate ururoa kei mate wheke!</td>
<td>[Fight fiercely like a shark not like an octopus!]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maori Numbers</th>
<th>1-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mauri</td>
<td>[life-force]</td>
</tr>
<tr>
<td>Rawhiti</td>
<td>[East]</td>
</tr>
<tr>
<td>Uru</td>
<td>[West]</td>
</tr>
<tr>
<td>Runga</td>
<td>[South]</td>
</tr>
<tr>
<td>Raro</td>
<td>[North]</td>
</tr>
<tr>
<td>Karakia</td>
<td>[prayer]</td>
</tr>
<tr>
<td>Patupaiarehe</td>
<td>[supernatural fairy folk]</td>
</tr>
<tr>
<td>Ponaturi</td>
<td>[malevolent sea sprites]</td>
</tr>
<tr>
<td>Urupa</td>
<td>[burial ground]</td>
</tr>
<tr>
<td>Te Kehua</td>
<td>[the ghost]</td>
</tr>
<tr>
<td>Te Taniwha</td>
<td>[the guardian creature]</td>
</tr>
</tbody>
</table>

Figure III Examples of Maori words and phrases used in the game
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 Hawaki.” Orbell gives an account of an instance where they were assisted by spiders. 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.

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310 Orbell, *The Illustrated Encyclopaedia*, 44.
311 Reed, *Treasury of Maori Folklore*, 179.
312 Orbell, *The Illustrated Encyclopaedia*, 44.
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 contributor 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

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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, 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. 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


318 See Maori Television Service’s description of Miharo: http://www.maoritelevision.com/tv/shows/miharo
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, storyboader, 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, 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 co-director.

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

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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
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. 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. 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. 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...
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 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).

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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.

Figure XII.
Timeline of my teaching experience
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.  

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 wharenui on AUT’s marae. According to Pama-Pengelly, “...carving has a mnemonic function in recalling ancestral deeds.” 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), advice Tawhaki is given when ascending to heaven, as well as in the song He tangi mo Tawhaki:

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=4TmtQRUwtc; http://www.youtube.com/watch?v=n1bsano-ZUg&feature=endscreen (accessed June 2, 2013).

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, and finish with the waiata He tangi mo Tawhaki (see figure XIII).

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

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

Click to activate

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

Click to activate
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.

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**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 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
diminutive Patupairehe, *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 point-and-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 initially useful, especially as I came from a print and motion design background.335 But as the project became more

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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.
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.\textsuperscript{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 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,\textsuperscript{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.\textsuperscript{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

\textsuperscript{336} Example adapted from Colin Moock, \textit{Essential ActionScript 3.0}. (Sebastopol: O’Reilly. 2007).

\textsuperscript{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.

\textsuperscript{338} Objects are incarnations, or instances, of classes. Classes are the blueprints upon which objects are based.
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 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 interdependent 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.
<p>| Figure 1. | My personal pepeha | 7 |
| Figure 2. | Origins of the project | 8 |
| Figure 3. | New transmedia project | 8 |
| Figure 4. | Timeline of language acquisition | 9 |
| Figure 5. | Contextual and cultural frameworks conversation | 12 |
| Figure 6. | Types of transmedia | 14 |
| Figure 7. | Transmedia play principles | 15 |
| Figure 8. | Comic panel showing Kurutai’s birth | 19 |
| Figure 9. | Traditional Maori game: Mu Torere | 23 |
| Figure 10. | Maori game principles | 24 |
| Figure 11. | Schell’s game model and Aarseth’s model | 25 |
| Figure 12. | Pearce’s game model | 26 |
| Figure 13. | Two complementary systems | 26 |
| Figure 14. | Three knowledge types | 28 |
| Figure 15. | Whakapapa as tacit and explicit knowledge | 29 |
| Figure 16. | Whakapapa creatively employed | 29 |
| Figure 17. | Maori view of cosmological creation | 30 |
| Figure 18. | Alignment of different models | 31 |
| Figure 19. | Propositional knowledge research example | 31 |
| Figure 20. | Implicit knowledge research example | 32 |
| Figure 21. | Convergence of overt interests and tacit experience | 33 |
| Figure 22. | Visual diary 2013 image | 33 |
| Figure 23. | Blogpost screenshot | 34 |
| Figure 24. | Knowledge as experience model | 34 |
| Figure 25. | Types of illustration influence | 36 |
| Figure 26. | Maori forms used | 36 |
| Figure 27. | Original image with added details | 37 |
| Figure 28. | Panel with changed aspect ratio | 37 |
| Figure 29. | After Effects interface | 39 |
| Figure 30. | Page layout improvements | 39 |
| Figure 31. | Previz panel using 3D model, pencil sketch, photo | 40 |
| Figure 32. | Game flowchart | 41 |
| Figure 33. | Main and ancilliary characters in game | 42 |
| Figure 34. | Animation in game example [video] | 42 |
| Figure 35. | Early game play test [video] | 43 |
| Figure 36. | All media using words and pictures | 44 |
| Figure 37. | Order of media | 45 |
| Figure 38. | Participation index for project | 45 |
| Figure 39. | Rough page and daughter’s remixed response | 46 |
| Figure 40. | The back-and-forth workflow | 48 |
| Figure 41. | Underlying core values | 49 |
| Figure 42. | One whakapapa model | 50 |</p>
<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Three story ideas that led to prologue</td>
<td>52</td>
</tr>
<tr>
<td>II</td>
<td>Interactive map [video]</td>
<td>58</td>
</tr>
<tr>
<td>III</td>
<td>Table of Maori sayings</td>
<td>59</td>
</tr>
<tr>
<td>IV</td>
<td>Comicbook History</td>
<td>61</td>
</tr>
<tr>
<td>V</td>
<td>Comic appearances</td>
<td>62</td>
</tr>
<tr>
<td>VI</td>
<td>Childrens book festivals</td>
<td>62</td>
</tr>
<tr>
<td>VII</td>
<td>Writing workshops</td>
<td>63</td>
</tr>
<tr>
<td>VIII</td>
<td>Television experience</td>
<td>64</td>
</tr>
<tr>
<td>IX</td>
<td>Miharo transmedia prototypes</td>
<td>65</td>
</tr>
<tr>
<td>X</td>
<td>Storylines 2013</td>
<td>66</td>
</tr>
<tr>
<td>XI</td>
<td>Mt Roskill Library Workshop</td>
<td>66</td>
</tr>
<tr>
<td>XII</td>
<td>Teaching experience</td>
<td>67</td>
</tr>
<tr>
<td>XIII</td>
<td>Oratory example of various artforms in single thread</td>
<td>68</td>
</tr>
<tr>
<td>XIV</td>
<td>First version [video]</td>
<td>69</td>
</tr>
<tr>
<td>XV</td>
<td>Final version [video]</td>
<td>69</td>
</tr>
<tr>
<td>XVI</td>
<td>Panel 1 development</td>
<td>70</td>
</tr>
<tr>
<td>XVII</td>
<td>Panel 2 development</td>
<td>71</td>
</tr>
<tr>
<td>XVIII</td>
<td>Panel 3 development</td>
<td>71</td>
</tr>
<tr>
<td>XIX</td>
<td>Areas on the Flash timeline</td>
<td>73</td>
</tr>
<tr>
<td>XX</td>
<td>Flash timeline scenes</td>
<td>73</td>
</tr>
<tr>
<td>XXI</td>
<td>OOP example</td>
<td>74</td>
</tr>
<tr>
<td>XXII</td>
<td>Lines of Actionscript</td>
<td>75</td>
</tr>
<tr>
<td>XXIII</td>
<td>Production Diagram</td>
<td>76</td>
</tr>
</tbody>
</table>


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