DESIGNING A NATIONAL PARK EXPERIENCE:
Expanding the experiential scope of wayfinding as a means of creating richer interactions between people and the Public Conservation Lands of New Zealand.

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There is considerable opportunity to build participation in the Public Conservation Lands through the development of enticing and imaginative experiences. An in-depth observational scoping study of Arthur’s Pass National Park observed wayfinding as a core opportunity for development. As a result this research looks to adapt basic wayfinding into more experientially rich solutions.

Two experience-orientated models are employed to assist the development process. Models developed by Nathan Shedroff - an experience design professional (2009) - and Tim Ingold - an anthropologist concerned with people and landscape (2000). These were applied to aid the development of diverse narratives of walking. As prompted through four wayfinding solutions: ‘Choreographed by Nature Wayfinding’ which prioritises kinaesthetic narrative, ‘Scavenger Hunt Wayfinding’ which utilises game-based involvement methodology, ‘Statistic-based Wayfinding’ which has a strong informational core, and ‘Storytelling Wayfinding’ which enlists an unfolding story as a means to assist wayfinding.

The application of these two different frameworks has elicited the following outcomes; Shedroff’s framework has increased the experiential depth of these wayfinding solutions, while Ingold’s framework has enabled the enlisting of landscape as a core-contributing component in wayfinding. This multidisciplinary approach has increased the scope of imaginative possibilities for wayfinding and shifted the focus from a mechanics of wayfinding artefacts towards the potential spread of experiences wayfinding might generate. The advantage of this approach for New Zealand’s Public Conservation Lands is it enables a prioritisation and sympathetic consideration towards the implementation of human intervention in a predominately non-human space.
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Finally, I dedicate this dissertation to Alex Miller and Nadine Simpson. This document is a testament to your love, encouragement, and unfailing belief that I can do anything.

THANK YOU.
As a child, Public Conservation Land was the destination of many Sunday drives - enjoying the fresh air and beautiful scenery rural Southland had to offer. This in itself became an integral part of my growing up. Throughout my life, I have continued to engage in and experience the Public Conservation Lands. However, it is necessary to note that I would identify myself as a casual user.

For me, engaging in the Public Conservation Lands is less about reaching the highest mountain peak or the back of beyond, but rather immersing myself in the environment that makes this country and its people unique. From capturing glimpses of what this land looked like before people to marveling at how people has transformed the unyielding terrains into the workable lands we see today. These landscapes are a part of my history and my story as a sixth-generation New Zealander. It is this that forms my desire to share and encourage others to seek out their own relationship with this place. This implicitly drives my research.

It was not until recently that I realized how much I took my relationship with the Public Conservation Lands for granted. This realization came to my attention while attending a picnic with a group of young adults (aged between 18 to 22 years). For I was the only one interested in exploring the surrounding area. This shocked me, as I was the only one to have previously been to and spent time in the area. I suggested we take a twenty-minute loop walk - leading out into the surrounding forest and back again - a suggestion quickly dismissed, as the group were quite content to remain in the domain. The uninterested behavior of ‘maybe next time’ and ‘eh, seen one, seen them all’ was disheartening. Given that with a small exertion of energy the group could have taken the opportunity to discover what makes New Zealand unique - stepping into a different world that is truly in contrast to the sown grass of the domain (figure I - opposite). The reaction I received made me increasingly concerned about the future of protected places, if my generation are uninterested in exploring what is available how will they then relate to future policy and legislation that may be detrimental to such spaces? It is in this broad context that my interest in this research area grew, and in particular what could my discipline do to create interventions that assist users, and potential users, in engaging with Public Conservation Lands of New Zealand.
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CHAPTER ONE: INTRODUCTION
The ability to engage in nature-based pursuits is an integral part of what it means to be a New Zealander, and it is intrinsically linked to the New Zealand lifestyle that is portrayed to the rest of the world. However, there is a sense that this is becoming increasingly not so, as a younger population become less aware of Public Conservation Lands (PCL) and with it a decreased appreciation as to its value. This research seeks to address this issue and in particular considers how design could assist in connecting people to place and increase opportunity for interaction and enriched engagement in the New Zealand PCL. The value of this research lies in the increasing need for new approaches and interventions that seek to create innovative ways to assist and encourage people in their interactions with nature.

This research employs a number of strategies to identify areas of opportunity and develop potential interventions. Two key factors have directed the avenue of this research: 1) the ability to participate in current research at the University of Otago, and 2) my personal connection towards the natural environment (driven by the encounters highlighted in the preface of this dissertation).

1.1 Research Context

PCL of New Zealand occupy one third of New Zealand’s total land area, and it is a core provider of nature experiences for both many New Zealanders and international visitors. As of July 2009, PCL measured approximately 33.4% (8,763,300 ha) of New Zealand’s land area, of which 11.8% (3,084,891 ha) are national parks (figure 1.1). PCL continual growth and development requires the annual investment of $540 million from the New Zealand taxpayer (DOC 2009). PCL are a cornerstone to the international brand of New Zealand; the landscape and unique environment are a significant drawcard for international visitors, who contribute $8.3 billion to the economy annually (19.2% of all export earnings) (DOC 2010). With an estimated 30% of all international visitors visiting at least one national park while here (DOC 2011), the economic worth of such an asset is obvious. Besides the economic worth, do we understand the importance and social benefit...

Figure 1.1: Map of land administered by the Department of Conservation
of having such public space readily available and more importantly are we using it to the best advantage? Although these questions are not directly answered in my research they do influence my need to encourage people to get involved and uncover their own understanding of PCL. As such this research seeks a ground up approach, an approach that prioritises the end-user and their experience of the natural environment. The research approach involves active participation in the national park, gaining knowledge and eliciting insights through direct experience. Following this, experience-oriented models are employed to develop potential interventions. This approach is taken in the hope of pursuing the key opportunity of further connecting people to the natural environment.

Numerous studies have focused on park visitors; many look at demographics, values, perceptions, park management (including strategies), access, governing policies, global trends affecting pro-environmentalism, and individuals interacting with the natural environment (some of these are discussed in Chapter Two). Many of these studies identify issues and trends affecting visitation and park management but lack conviction in resolving identified issues. Moreover, rather than actively pursuing the opportunities and potential resolutions to the issues present they merely continue to confirm that existence of an issue. As Crawford writes: “although debates begin with a focus on a particular environmental resource problem, they quickly become arguments over how people ‘should’ interact with nature and each other/ Our values dictate what we believe we ‘should’ and ‘should not’ do, and clearly occupy a central place in natural resource management” (Crawford 2011, p.1). Crawford identifies that the values of those in management or regular users dictate what should be done, rather than encouraging all users and potential users to uncover their own values and voice their concerns.

This research is conducted in the South Island of New Zealand with field research undertaken in Arthur’s Pass National Park (APNP). Contributing factors for choosing APNP as the study location include; the enthusiasm of field staff to welcome such work, the diversity of landscape and altitude, the park’s low level of park redevelopment, the high volume of park users and potential park users visiting the area, and most importantly the typicality of New Zealand National Park sites. The context of this research stretches beyond that of this local context as people interact with the natural environment in a multitude of places, and as such this research may have positive repercussions for PCL of New Zealand, international national parks and reserves, and any other locations where people interact with nature. This research fundamentally seeks new approaches to encourage a potentially complacent audience to engage, learn and explore nature.

1.2 Research Aims and Objectives

Through understanding how people perceive, interact, experience and move through the landscape we may endeavour to foster a deeper sense of understanding, attachment and ownership towards PCL. In addition, this may lead to a more socially and economically sustainable future for New Zealand’s natural environment. This is the driving force behind this research.

This research fundamentally asks how might the National Park experience be designed to enrich the user-experience and install a deeper sense of understanding of, and connection with, the natural environment? To answer this the research seeks to utilise design to develop potential ways of enriching user experience of the natural environment. First, developing ways to increase design’s capacity when designing for this environment. And second, developing potential solutions that focus on reconnecting people to place through encouraging engagement with the natural environment.

In addition this research also seeks an understanding of the natural environment as a location for designed artefacts and experiences, this includes understanding landscape affordances and instrumentality, kinaesthetic perception and designing in time. In summary the proceeding research elicits opportunities and pursues potential design interventions for enriching user engagement.
1.3 Outline of Dissertation

The outline of this dissertation is as follows: Chapter Two examines literature regarding contemporary nature experiences, the relationship between people and nature (including place attachment and endowment of value), landscape affordance and the discipline of design’s ability to elicit experience and encourage interaction. Chapter Three introduces two theoretical frameworks that become key to this research - Nathan Shedroff’s Experience Design model and Tim Ingold’s position of landscape Temporality. Chapter Four outlines the research design and the support for the approach taken. Chapter Five explores a number of the national park offerings, in particular those located in Arthur’s Pass National Park: this is done through an observational scoping study of the area. From this study, a number of insights and opportunities were identified to frame the direction of any proceeding design interventions. Chapter Six explores wayfinding literature and current PCL wayfinding interventions, as determined by the opportunities identified in Chapter Five. Chapter Seven outlines the wayfinding ideation workshop and subsequent selection of four core ideas. Chapters Eight and Nine see the four selected ideas undergo a development process led by the frameworks introduced in Chapter Three. Chapter Ten showcases the developed ideas and discusses the research in its totality.
CHAPTER TWO: CONTEXTUALISING NEW ZEALAND PUBLIC CONSERVATION LANDS
Chapter Two: Contextualising New Zealand Public Conservation Lands

New Zealand’s Public Conservation Lands (PCL) account for a significant proportion of New Zealand’s land area. It is also intrinsically linked to the country’s sense of identity and how New Zealanders present their country to the world. However, the collective and individual relationship with the PCL of New Zealand is changing. This research is located within a wider set of research being undertaken at the University of Otago; research-based examination of ways in which design processes can be used to counter such senses of disenchantment, and instead install a deeper sense of connection between people and PCL of New Zealand. Within this broad research context the following key elements have been explored in this dissertation:

1) Ways contemporary experiences of nature have been progressively reconstructed and commodified.
2) Examining the relationship between people and their experiences and interactions with nature and landscape including how attachments are formed and value endowed.
3) Exploring ways design can influence the user experience through actively existing the implicit affordance of landscape and the agency of place. This chapter explores current literature surrounding these key elements.

2.1 Contemporary Experiences of Nature

John Beardsley’s article ‘Kiss Nature Goodbye’ examines contemporary experiences of nature in a North American context. He has a particular interest and concern in the rise of the ‘natural attraction’ (simulated natural landscapes) and experiences within everyday urban spaces. What makes these attractions noteworthy is how the nature experience is being reconstructed with contributing factors such as an increased commercial bias, growing economic segregation, and increasing popularity each playing a part. The key focus is less about the validity of such experiences and more about how these attractions are inevitably shaping the concept and cultural relevance of nature. For Beardsley, this reconstruction of nature has the power to render national parks irrelevant (Beardsley 2000).

This reconstructed nature takes various forms, from the simple act of bringing nature indoors and reconstructing the commercial landscape to include nature or natural elements.
For both Beardsley and Mrozowski, these reconstructed versions of nature are primarily available to those who can pay for the privilege. Each nature experience involving ‘real’ nature has associated costs. These include travel, admission, accommodation, food, and specialised equipment, to name a few. Free time and disposable income have become essential requirements to enjoying nature. Accessibility and affordability are inclusive. Beardsley takes this a step further by discussing the emergence of three classes of landscape experience: “The affluent will make their eco-tours to the remaining fragments of pristine habitat. The middle classes will visit simulation; everyone else will inhabit marginal landscapes, salvaging and recycling to survive” (Beardsley 2000, p.5).

The notion of utilising nature to target customers involves more than just the design of interior and exterior spaces. Nature’s appeal is found in products that utilise natural ingredients and materials (both organic and exotic), as well as those that campaign the protection of wildlife and nature. (Beardsley 2000) Through exploiting how nature is packaged for consumption, Beardsley argues that one’s affection for nature has been utilised in a marketing strategy. It has become a gimmick that allows businesses to tap into and cash in on that affection; an exploitation to “wooth” or “woo” in our era of consumption (Beardsley 2000, p.6). This promotes the notion that we can conserve and consume in a single transaction. The marketing is straightforward. ‘Adjacent attractions’ operate on knowing people like nature. Therefore, people will be inspired by nature, and are inclined to embrace a product closely linked to these associations (Beardsley 2000).

Stephen Mrozowski argues that the commodification of nature is centuries old. For Mrozowski, this is seen not only in the long history of land ownership, which as a currency of wealth can be measured and exchanged, but also in the design and reconstruction of the gardens and estates in renaissance architecture (Mrozowski 1999).

Examples used by Beardsley include the subtle utilisation of greenery and water features found in mall interiors to the completely simulated environments of theme parks and themed cafes that are merely inspired by nature. Beardsley’s (2000) Figure 2.1 shows four examples of this reconstruction.}

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Figure 2.1: Various forms of commodified nature experiences
A) Nature lined atrium, Wall Street Mall, Dunedin.
B) Dolphins at SeaWorld®, Orlando.
C) Nature theme Rainforest Café.
in 1887 Tongariro National Park became New Zealand's first national park and the fourth in the world (DOC 2011). The Department of Conservation (DOC) ‘Statement of Intent 2009-2012’ reads; “In order to foster [this] commitment to conservation, people must see the value in it, for itself, and for people’s enjoyment and benefit, now and for future generations. The over arching purpose of the Department is to increase the value that New Zealanders attribute to conservation” (DOC 2009).

In recent years DOC has placed an emphasis on the call to ‘be involved’, and until recently used a tagline to state ‘Protect, Enjoy and Be Involved’.

The New Zealand PCL continual growth and development requires investment by the New Zealand taxpayer of $540 million annually (DOC 2009). With such financial investment, it would be naive to think New Zealand was exempt from pressures to extract value and with it commercialise the appeals of its natural landscapes. Interestingly the ‘Protect, Enjoy, Be Involved’ tagline has been replaced with “Conservation for Prosperity” (DOC 2011). Although clearly different to North America the natural landscape of New Zealand is subject to various forms of commodification, from the alluring panoramic picture books to guided walks and thrill seeking adventures. Such commodifications are placed out in the ‘real’ nature including as Paul Cloke and Harvey Perkins have researched, bungee jumping or whale watching. In their words: “Landscape thus becomes in part a stage for spectacular adventurous performance, and operators of the attractions provide the cast and the props so that participants can take centre stage” (Cloke and Perkins 2002, p.544).

For McIntyre, Jenkins and Booth the central concern is that without a stronger focus on sustaining both the access to, and the quality of nature experiences New Zealand’s PCL face increasing uncertainty. (McIntyre, Jenkins et al. 2001) McIntyre, et al. write, “Out of a beginning which promised a wealth of public access to natural areas has grown a strong New Zealand outdoor tradition. The New Zealand public compete with a plethora of tourism operations for access to fishing, hunting and the silence of the land” (McIntyre, Jenkins et al. 2001, p.447).

Beardsley’s ‘Kiss Nature Goodbye’ argues that an increased examination of these contemporary forms of nature experience needs to take place, moving beyond simply discussing whether they are beneficial or harmful, complementary or in competition, and better or worse than that of the ‘real’ nature. Whether in its consumption, education, or entertainment these contemporary forms of nature are fulfilling a fundamental need and, as such, hold value and a degree of validity. However, Beardsley questions; “If we can satisfy our urge to experience fragile ecosystems by visiting a simulation, do we less damage to the real thing. On the other hand, if we can manufacture a convincing and entertaining fake, who will care about the original?” (Beardsley 2000, p.5).

Dedicating land to conservation in New Zealand dates back to the latter nineteenth century when
McIntyre, et al. argue that there is growing concern over ‘public disenchantment’ and ‘progressive erosion’ of access to conservation land. He argues this occurrence is due to the rise in ‘user pays’, ‘access obstruction’, increasing privatisation of natural resources, contested land rights and the government’s prioritisation towards economic benefits rather than social. In the ‘Statement of Intent 2009–2012’ the Minister of Conservation (at that time Tim Groser) writes: ‘The central premise is that conservation is an economic investment, not simply a ‘social good’ cost… In its totality, conservation plays a critical role inValidation the ‘clean pure’ brand that is the market advantage on which our producers rely’ [DOC 2009, p.6].

PCL are a chief cornerstone of New Zealand’s brand image; the beautiful landscape and unique environment is a considerable drawcard for international and domestic visitors. The landscape has become a core component of tourism marketing; international visitors alone contribute $8.3 billion to the economy each year, totalling 19.2% of all export earnings [Tourism 2010]. This reliance on the New Zealand landscape for financial gain is not a new phenomenon; Geoff Park in ‘Theatre Country’ [Park 2006] explains people’s historic relationship with New Zealand’s landscape, including its promotion for migrants, and its use for resource extraction and investment. He explains how tourism and promotion of New Zealand in even its earliest forms encouraged, tailored and shaped the way people viewed the landscape; from its picturesque and romantic roots in the nineteenth century to the notion of 100% Pure now [figure 2.2]. New Zealand has been regarded as a pristine and untouched landscape, a place to behold.

Mick Abbott argues that understanding the presentation of New Zealand PCL as scenery is problematic, in that it places people beyond ‘the scene’. As such, it makes the viewer an outsider, merely seeking unspoilt vistas; from the lens of a camera to the well-trained gaze drawing the viewer’s away from any signs of human activity in the landscape. Abbott provides this example: the scenery of Milford Sound in one direction offers the majestic and picturesque views of Mitre Peak, in the other the village complete with frenzied airport, carefully pruned trees, hordes of people, and tour boats; the former being the canon of Milford Sound. His Google image search of ‘Milford Sound’ illustrates this prejudice for the pristine [figure 2.3] [Abbott 2011, p.182].
For Abbott, this separation does not cease with the picturesque but can be seen in the act of a ‘self-reliant adventurer’ that enters the wilderness with everything that they could require. For example on a seven-day solo trip Abbott proceeded to write a list of all the items he had taken with him. “As well as the most obvious stuff – tent, sleeping bag, parka, cooker, and so on – my list included my camera’s memory stick made in Taiwan (and coded AC43-510-018-Z-PO48B05), a watch bought at Los Angeles airport, disposable lighters made in France, A big black garden bag bought at Countdown as my pack liner, my credit card, foil sachets of Sweet Thai Chilli Tuna, couscous grown who knows where, a Blue Chinese-made sun hat, and a Pilot Green III Trek point V5 Extra Fine Pen I used to write the list with. The list grew to over two hundred items.” (Abbott 2011, p.183). This self-reliance has muted the capacity of wilderness/nature to involve us in its world. The adventure is equipped ‘as if landing on the moon’ and in doing so asks only that the landscape be a scenic backdrop (Abbott 2011). In addition, the well-trodden tracks, gravelled paths, boardwalks, and triangle markers have replaced the need to discover one’s own path. The well-defined tracks create a de facto corridor that encourages only a visual appreciation of the landscape: leading users through the landscape rather than into it (Abbott 2009). Abbott argues in asking nothing of the land one is inhibiting an ability to get in-touch with nature and experience what it has to offer (Abbott 2010).

Park writes: “Modernity has turned New Zealand into two landscapes. Both were conceived aboard the ships of European exploration in the moment when New Zealand became an inevitability. These two landscapes have equal power in shaping New Zealanders’ sense of themselves. In the one in which most of us live one of humanity’s most dramatic transformations of nature anywhere has removed indigenous life entirely. The other one, in which our living is prohibited, is still solidly indigenous as anywhere on Earth, and as devoid of humans; maintained as though it were the world without us; our Terra nullius, no less” (Park 2006, p.177).

In the creation of two distinct landscapes, direct experiencing of nature has become more difficult. Rather than simply exploring the pockets of nature in and around urban sites the perception is that experiencing genuine nature is only done in the ideal and unspoiled vistas of the backcountry. In this people and their activities have been severed from nature, existing independently of one another. For both Park (2000) and Abbott (2010), the existence of a middle landscape offers potential to bridge the gap between these two extremes of human space and non-human space, ‘terra nullius’. Park’s ‘middle landscape’ exists in the places where there is an opportunity to blur the boundaries between the two landscapes. Abbott argues that these middle landscapes occur wherever people and the indigenous land interact “as the foot walks the ground, as the board walk follows the river’s edge, as the hut becomes its surroundings” (Abbott 2011, p.158). This self-reliance has muted the capacity of wilderness/nature to involve us in its world. The adventure is equipped ‘as if landing on the moon’ and in doing so asks only that the landscape be a scenic backdrop (Abbott 2011). In addition, the well-trodden tracks, gravelled paths, boardwalks, and triangle markers have replaced the need to discover one’s own path. The well-defined tracks create a de facto corridor that encourages only a visual appreciation of the landscape: leading users through the landscape rather than into it (Abbott 2009). Abbott argues in asking nothing of the land one is inhibiting an ability to get in-touch with nature and experience what it has to offer (Abbott 2010).

Park’s and Abbott’s respective positions suggest there is a need to engage people intimately in the natural environment. They argue that an individual’s sense of identity and understanding of nature can be developed through an active relationship within the natural environment. It is in exploring ways to enrich people’s engagement with the natural environment, that this specific research is located. The following section examines the qualities of the natural landscape and role people play within them.
2.2 People and Landscape

Anthropologist Tim Ingold considers the relationship between people and landscape. Two of his positions are especially relevant to this study. The first prioritizes dwelling in landscape (Ingold 2000) and the second focuses on the connection one’s feet has with the land (Ingold 2004).

Ingold’s dwelling perspective aims to move on from the opposing perspectives of anthropology and archaeology, particularly with regard to people and landscape. He seeks to move beyond “the naturalistic view of the landscape as a neutral, external backdrop to human activities, and the culturalistic view that every landscape is a particular cognitive or symbolic ordering of space” (Ingold 2000, p.189). Whether landscape is seen as a backdrop or an ordering of space, both perspectives fundamentally hold humans separate from landscape, and assume a position where humans are not bound to landscape. Humans act on the land rather than being part of it. In contrast, Ingold argues that fostering an understanding of landscape and the role humans have within it through a ‘dwelling perspective’ should be adopted. This ‘dwelling perspective’ considers landscape through time and activity (livescape), and prioritises the view “in dwelling in the world, we do not act upon it, or do things to it; rather we move along with it. Our actions do not transform the world, they are part and parcel of the world’s transforming itself” (Ingold 2000, p.208). This passage highlights the founding themes of Ingold’s perspective: first, human life and dwelling involves the passage of time; and second this process takes part within the formation of landscape. In this, the landscape is fundamentally temporal, driven by time and its formation is perpetually undergoing change. Barbara Bender (Bender 2001) argues, “People are always in some relationship to the landscape as they move through it— they are never nowhere: every movement between here and there bears with it a movement within here and within there” (Bender 2001, p.78). This supports the notion that one is an inseparable component of the landscape.

In addition, Ingold argues that the attuned eye the landscape is ‘pregnant with the past’, enfolding the lives of those who played a part in it. “A place owes its character to the experiences it affords to those who spend time there - to the sights, sounds and indeed smells that constitute its specific ambience. These, in turn, depend on the kinds of activities in which its inhabitants engage. It is from this relational context of people’s engagement with the world, in the business of dwelling, that each place draws its unique significance” (Ingold 2000, p.192).

The value and significance of land and landscape is not its physical presence but rather what activities occurred within it, including those undertaken by non-human life. Ingold explains that first, human-life nests within the wider patterns of animal-life, all so-called living things and the life processes of the world. And second, at any one moment we are attending to those we share the landscape with.

The second perspective offered by Ingold, from ‘Culture on the Ground: the World Perceived Through Feet’, suggests that by reassessing one’s approach to human movement - from that dominated by sight to that driven by the feet - we create the opportunity for new areas of environmental perception to develop. “For it is surely through our feet, in contact with the ground (albeit mediated by footwear), that we are most fundamentally and continually in touch with our surroundings” (Ingold 2004, p.330). This suggests that as one’s movements become attuned and responsive to the ground ahead a deeper sense of the landscape is formed, an experience that is multidimensional and connects a person with the landscape as they move through it (Ingold 2004). As Abbott notes in discussing Ingold’s and Mike Michael’s positions, this understanding is in contrast to picturesque notions of landscape that rely heavily on visual perception and where the act of viewing the landscape or specific vista happens in moments of rest (Abbott 2008). Mike Michael argues that mundane technologies, such as the walking boot, play a considerable role in mediating the interaction between people and place. He suggests the relationship people have with a place is ‘parasitised’ by interventions, adding to the cycles...
of communication through the artefact’s semiotic and material qualities. While equipment enables the reshaping of affordance and the expanding possibilities of action available to the individual it also holds implications in the relationship between the individual and nature [Michael 2000]. Interventions are simply that, something used to intervene in the situation. In the case of designing for nature, such a role would be to mediate the interaction and relationship between people and the environment. Michael writes: “Nature does not only afford bodies... but also affords to bodies-and-boots (and conversely, one does not walk in nature, but in ‘nature-and-boots’).” Here he calls for a heightened awareness that experience with nature are mediated “once walking boots are taken into account, we are not simply a process of practice and perception, but interaction and communication into which are imported a vast array of messages” [Michael 2000, p.122]. He argues that it is not simply a matter of considering the natural environment and us, but also considering the mundane technologies that assist, interfere, and mediate one’s experience with nature [Michael 2000].

Ingold’s work emphasises the idea that landscape and the role people have within it comes from a connection between them, and also that this dwelling unfolds in time and involves an awareness (both conscious and unconscious) of individual and collective movements within that landscape. Landscapes and relationships with landscape are conversational; one’s movements are dictated by the forms of the landscape and in time landscape forms are dictated to by the movements of people.

In addition, the notion of value gained through dwelling and those who dwell there suggest strong links to that of place attachment and affordance. However, while Ingold’s position is compelling and offers a keen set of insights, less clear is how the designer could apply such insights? What does Ingold’s work suggest should be designed? This is a critical question and, in terms of this research, one that the following chapters return to. However, it is first necessary to examine understanding of place attachment and landscape affordance, and explore what qualities of landscape elicit certain behaviours and dwelling?

2.3 Place Attachment

‘Place attachment’ is the bond an individual forms with a particular location [Sharpe and Ewert 2000]. Supporting this notion Williams et al. writes: “Physical space becomes place when we attach meaning to a particular geographic locale, be it a chair in the living room; one’s home, neighbourhood, city, or nation; or a variety of spaces in between. Thus, what begins as undifferentiated space becomes a place as we get to know it better and endow it with value” (Williams, Patterson et al. 1992, p.31).

The importance of place attachment comes from its ability to elicit loyalty, advocacy and future protection for the ‘attached place’. Hinds and Sparks write, “Experiences in the natural environment have found to have significant correlations with environmental behaviour, such as recycling, signing petitions in favour of environmental protection, using public transport… contributing money to environmental organisations’ and environmentally conscious consumerism” (Hinds and Sparks 2008, p.109).

Hinds and Sparks add that modern lifestyles of the developed world have created increased division between humans and the natural world (both physical and psychological), and this has subsequently led to a cycle of apathy and lack of concern for the natural environment, the wildlife it contains and the issues that plague it [Hinds and Sparks 2008]. Schneider argues that by learning about ‘special’ places and what they mean to people, resource professionals can ensure that such places will always be available for the highly valued experiences they afford [Schneider 1996]. McCleave et al. write, “Failure to acknowledge the importance of understanding relationships between people and parks has the potential to result in significant obstacles to effective management, community resentment of conservation initiatives, reduced social wellbeing, and unrealised tourism and recreation opportunities” [McCleave, Episner et al. 2006, p.58].
The notion that restricted access to nature limits personal development is a view shared by Thompson; her research highlights the lasting effect that nature experiences have on the individual and how these persist long after childhood. Regular encounters with nature benefit “people’s physical wellbeing, emotional and mental health, and societal development” (Thompson 2007, p. 16).

Sharpe and Ewert’s article ‘Interferences in place attachment: implications for wilderness’, examines the complexity of place attachment including factors that can assist and interfere with the formation of attachment. They argue that rather than arriving at decisions through a rational and linear way people generally ‘muddle through the decision making process’. This, in itself, makes designing artefacts or policy concerned with the natural environment evermore complex. As a result, they suggest park managers should use a myriad of tools to direct place-attaching behaviours, while actively minimising the negative effects associated with place interference (Sharpe and Ewert 2000). Sharpe and Ewert’s place attachment framework examines the necessary factors required for effective place attachment formation and asks also that users consider factors that have the power to interrupt and breakdown place attachment. As part of this research, the following schematic (figure 2.4) was developed as a means of visually representing their position. It illustrates the three core contributing elements of place attachment formation and interference; the individual, the place, and place interference.

In the schematic, the individual is divided into two primary dimensions: ‘place dependence’ and ‘place identity. These contribute to place attachment creation. Place dependence is the occupant’s perceived bond between themselves and the place. This is based upon two things: 1) that the chosen place satisfies the needs and goals of the occupant and 2) the existence of, and perceived accessibility to, other places that meet the same needs and goals. Sharpe and Ewert categorise visitors into three groups according to their core motivations to visit a chosen location; these motivations are: 1) place, 2) activity, and 3) social requirements (Sharpe and Ewert 2000). From

Figure 2.4: Place Attachment Model
As visualised from Sharpe and Ewert ‘Interferences in place attachment (2000)’

The Individual User
Place Identity: Place identity is strongly associated with self-identity, including its construction
Change
People
Process
Place
Characteristics of Attached Settings
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Change
People
Process
Place
Characteristics of Attached Settings
Chapter Two: Contextualising New Zealand Public Conservation Lands

In their article ‘Beyond the commodity metaphor: examining emotional and symbolic attachment to place’, Williams et al. write: “wilderness is a state of mind influenced by personal and cultural values… therefore, whether a particular experience constitutes a wilderness experience is a highly subjective judgment” (Williams, Patterson et al. 1992, p.424). Similarly, Gordon Cessford – writing in a New Zealand context argues “wilderness means something different for everyone”, and that some find “their wilderness experience in the city environment, with others seeing it in the way most familiar to New Zealanders – as the experience of being in a natural environment away from other people and from facilities” (Cessford 2001, p.11). Higham et al., also researching in the New Zealand context, examines this diversity further. They set out four key user groups of wilderness as determined by each group’s acceptance levels of various qualities existing in wilderness. These categories are non-purist, neutral, moderate-purist and strong-purist. With strong-purists being those whose wilderness is void of facilities, while non-purists regard facilities such as huts, maintained tracks and road access acceptable components of a wilderness experience (Higham, Kearsley et al. 2001). This diversity increases the complexity and difficulty of relational factors to be considered in the design process. Gordon Cessford argues, that any ‘case for wilderness’ lies in the composition and balance of personal and societal values as these “values are the building blocks of underlying attitudes and motivations” (Cessford 2011, p.3). For Cessford, the stronger the link between people, wilderness, and the values they associate with it the stronger the likelihood they are to engage in positive environmental behaviours; particularly “when there is something affirming personal association with nature and wilderness” (Cessford 2011, p.3).

In addition to the diversity of values present, Cessford explains that when considering how they also observe ‘place interference’ occurs when the individual encounters rapid or sudden change to place, people associated with place, or the processes involved. At an individual level, examples of these include isolated incidents such as natural events or management policies, loss of travelling companions, or loss of the desired characteristics of the wilderness experience such as safety and solitude. At a more societal level, other factors include rapid transformation of landscape (mining, re-zoning, and forestry), introduction of technology, increase of safety risks, and changes in the way an individual interacts with wilderness. Implications of place interferences include significant loss of place attachment, increased stress, grief, a sense of loss or betrayal, belonging, and loss of self-identity affecting the way one distinguishes oneself from others (Sharpe and Ewert 2000).

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In addition to the diversity of values present, Cessford explains that when considering how
to create effective ‘wilderness pathways’ that lead to engagement or participation, ‘we must remember that the common core of constraints will inhibit involvement and immersion... these constraints may be time constraints; family or work obligations; expense; absence of facilities, equipment or opportunities; too little knowledge or awareness; lack of companionship, skills, abilities or confidence; problems with transport and access; disability; as well as a number of personal reasons’ (Cessford 2011, p.116). A wider issue is that debates on environmental or resource problems quickly become arguments over how people should interact with nature, and each other, our values dictate what we believe we ‘should or should not do’ and appears to hold a central place in natural resource management (Cessford 2011, p.1). In terms of design-directed research, a key question is what can design produce that will foster such pathways while also sustaining opportunities for the various degrees of wilderness values and experiences?

2.4 Affordance and Agency of Landscape

Landscape affordance, as indicated earlier, pertains to the ability certain landscapes have in eliciting certain types of experience: these include characteristics fundamental to the formation of effective connection, relevant behaviours and pleasurable experiences. Whether these are physical (Schroeder 2002), experiential (Thompson 2007), or perceived (Sharpe and Everitt 2003) they each play a role in developing the experience.

James Gibson, a leading theorist in the role affordance play in peoples’ interactions with the environment explains the affordance of the landscape is primarily the ability the landscape has to facilitate certain types of action, or behavior. “Different layouts afford different behaviours for different animals and different mechanical encounters” (Gibson 1986, p.128). For example, to afford a path the environment or landscape must allow for ‘pedestrian locomotion, from one location to another, between the terrain features that prevent locomotion... a path must afford footing, it must be relatively free of rigid foot sized obstacles’ (Gibson 1986, p.36). In addition, the culture, age and size of the pedestrian will affect what affords a path. Gibson argues the following of key points. First, “Basic affordances of the environment are perceivable and are usually perceivable directly, without an excessive amount of learning” (Gibson 1986, p.143). Second, all affordances are relative to the individual observer, yet they remain regardless of whether people perceive it. Affordance do not change because the needs of the user change, affordance is not given to the object by the observer. More importantly affordance cannot be taken away if not attended to (Gibson 1986, p.143). Third, Objects and environments can afford both positive and negative affordances: some offerings are beneficial and others harmful. For example, a cliff on one side affords walking, whereas on the other affords injury. The environment inherently constrains what the animal or human can do with it. Gibson also notes that humans continually alter their environments to afford more of what benefits them, and less what may be harmful. What makes affordances problematic for the designer is that they are “equally a fact of the environment and a fact of behaviour”(Gibson 1986, p.129). As such the pre-given qualities of an environment will afford certain types of behaviour.

James Corner, a landscape architecture theorist, advocates for a “belief that landscape has the capacity to critically engage the metaphysical and political programs that operate in a given society, [and] that landscape architecture is not simply a reflection of culture but more an active instrument in the shaping of modern culture. Landscape reshapes the world not only because of its physical and experiential characteristics but also because of its eidetic content, its capacity to contain and express ideas and so engage the mind” (Corner 1999, p.1).

In this shift from landscape being a product of culture to one of an agent producing and enriching culture, the ‘recovery of landscape’ become less a matter of appearance and more of a ‘strategic instrumentality’ with the emphasis on “processes of formation, dynamics of occupancy, and poetics of becoming” (Corner 1999, p.56). Corner argues, ‘Landscape projects may serve as a means to critically intervene in cultural habits and convention.” (Corner 1999, p.4) Corner suggests this requires a ‘re-imagining’ of the landscape that encompasses its full eidetic scope: one that is more
Corner’s model foregrounds the significance of the designer and aligns with other models that encourage design to take a leading role in identifying opportunities. Roberto Verganti discusses the ability designers have to understand, analyse, and translate various languages of style, meaning, socio-cultural aspects, and mediating between various stakeholders and professionals. He argues that the success of Italian design firms is due to enabling designers to take key leading roles in propelling the innovation processes (Verganti 2003).

In terms of this research, it is intended that design is applied as an instrumental agent of change in terms of people’s interactions with, and perceptions of, landscape, and in particular those landscapes where people and PCL overlap. In this sense design is to be used prospectively, in other words as a tool of exploration.

2.5 Experience Design

The previous sections and associated literature strongly emphasize experiential qualities as being significant in terms of building connections and interaction with landscape. In terms of New Zealand’s PCL what constitutes a nature experience for one may not meet the expectations of another, and too often what is considered a nature experience is too narrowly defined by the concept of “wilderness”. However it is this diversity that increases the complexity and difficulty of understanding the relational factors to be considered in the design process. It is this that leads to the question how can an experience be designed to enrich engagement and encourage place attachment when that which constitutes a nature experience is relatively undefined? Such complexity is further explored in the following section in an examination of the emerging field of Experience Design.

Experience Design, as a design discipline has a number of definitions that describe the act of designing experiences, and its contributing components. Some of these are; user-experience than ‘picturable’ and includes acoustic, tactile, cognitive, and intuitive aspects and in doing so aiding a mental conception of landscape that engenders, unfolds, and participates in emergent realities (Corner 1999). Corner calls for an “emphasis on experimental intimacies of engagement, participation, and use over time” (Corner 1999, p.159). It is this that becomes the role of the landscape architect, or designer.

Corner explains that maps should be considered as a collective enabling enterprise, a productive and liberating instrument, capable of uncovering realities previously unseen or unimagined (Corner 1999, p.214). As such, they have the capacity to ‘manipulate potentials, enrich experiences’ and ‘diversify worlds’ (Corner 1999, p.215). He outlines four ways in which mapping can shape design, with each requires the user to participate in generating their interpretation. First, ‘Drift’ targets the destabilisation of any dominant of fixed position. It is a strongly cognitive and personal approach that is less about representation of the world and more concerned with representation of experiences. Second, ‘Game board’ seeks to solve complex problems through the temporal play of various parties or forces brought together for mutual benefit. Third, ‘Layering’ utilises the superimposition of independent layers and results in a complex structure without hierarchy that is simultaneously cohesive and ‘disruptive’ and in doing so initiates new relationships. Fourth, ‘Rhizome’ connects any one point to another, with multiple entry ways, exits and lines of flight, privileging actions and effects over representation and means (Corner 1999, p.231-249). In each of these methods, user participation and the creative use of cartography allows for the ‘liberating phenomena and potential from the encaustism of the convention and habit’ (Corner 1999, p.239). It enables seemingly exhausted grounds to become actualised anew. Corner argues that breaking conventions can break new ground, as designers and cartographers alike push the boundaries of different media towards more interactive and accessible means. Corner’s examples suggest that involving the user in the creation or re-creation of the map (or experience) will assist in increasing effective interaction. Participation is vital to the unfolding of potentials, and as such cannot be disregarded when answering the call for design to create instrumental experiences.

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customers. “Successful companies are adopting a more holistic and customer-centric relationship model... They are considering and designing the total experience of their brands” (Ardill 2008, p.1). This approach prioritises the dialogue and interaction between the brand and the customer, encouraging “businesses to see the world through the experiences of their customers” to gain insights into how the brand is perceived. This allowing for future ‘value engineering’ tailors offerings so they are relevant and compelling. The central premise has an emphasis on designing ‘moments’ over messages; a shift from content to consequence, message to memories, and selling to story telling. Ardill concludes with ten ‘top tips’ for businesses wanting to design experiences. These are: businesses need to be 1) personal, 2) passionate, 3) imaginative, 4) relevant, 5) genuine, 6) involved, 7) memorable, 8) famous, 9) responsible, and 10) simple (Ardill 2008).

Nathan Shedroff suggests Experience Design is not an additional economy that sits alongside products and services, but rather an integrative design approach that incorporates the design of products, devices, communications, and events. In addition to the various terms used to describe Experience Design, Shedroff explains that those who partake in the designing of experiences come from a vast range of disciplines: “theatre, graphic design, storytelling, exhibit design, theme-park design, online design, game design, interior design, architecture, and so forth” (Shedroff 2011), all of whom, on some level, design specifically for the user’s experience. For Shedroff, Experience Design is “the combination of many previous disciplines; but never before have these disciplines been so interrelated, nor have the possibilities for integrating them into whole solutions been so great” (Shedroff 2011, p.1). Shedroff argues “the elements that contribute to superior experiences are knowable and reproducible, which make them designable” (Shedroff 2009, p.2). It is pivotal to adequately define the start, middle and end of the experience, for experiences cannot be sustained forever – whether due to attention span, energy or emotion. These defined stages allow for greater closure and reflection, limiting the possibility of the audience growing weary, confused or distracted. Seeking the boundaries of an experience allows designers to identify the parameters in which they can begin to design within. To aid this Shedroff explains that experiences have six core

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**Figure 2.5: Rise of the experience economy**

As seen through the evolution of the birthday cake (visualised from Pine and Gilmore, 1998)
There is some opposition to the idea that experiences can be designed. The core premise of Desalvo and Forlizzi's opposition is the significant role emotion has in an experience; they argue that emotions cannot be created but rather through the application of ‘levers’ are triggered. However, due to the nature of emotions, they are highly individualistic and emotional reactions vary significantly between individual users. “An emotional experience is dependent on the relationship between the individual and the environment in which it takes place.” [Forlizzi, Desalvo et al. 2003, p.34]. It is the interaction between people and objects within the environment - relative to their goals - that shape the experience. It is in “providing the opportunity for action and interaction, [that] facilitates new emotional experience.” [Forlizzi, Desalvo et al. 2003, p.34] In such a context, the designer of products or experiences can only hope to create the right ‘levers’ to trigger the desired response.

There is consensus in the literature with regard to the shift in attention from products to the designing of experiences; a move that not only seeks to understand the relationship between user and artefact but also to gain the knowledge and ability to design that encounter. This begins with awareness that users, customers, or audiences no longer seek products, services and events that merely ‘get the job done’ but rather that they seek more memorable and personal experiences.

2.6 Chapter Discussion

Throughout this review of key literature, the complexity of landscape perception emerges, and in terms of this research, the following key themes were identified; 1) what is a nature experience for one is not for another and the implementation of interventions must remain sympathetic to the values imbued upon that place. There is a necessity to seek balance between these varying value structures, ideas of recreation and acceptable levels of human intervention or signs of human activity. 2) Culture and society has inevitably shaped and continues to shape the way landscape is understood. 3) Landscape and dwelling are bound to time, and are perpetually changing from the unfolding of vistas as one moves through an environment to the changing features that lie within the landscape. 4) The landscape will ultimately afford certain types of activity and behaviour. In this regard, it is not necessarily essential to define what is or is not landscape or wilderness, or for that matter where one begins or finishes. If we take Ingold's perspective, value and boundaries come from the dweller, therefore, when designing experiences one must begin to respect that each participant will see boundaries and install values differently, and to varying extents. Likewise, the level of engagement, ability and investment will also differ.

The literature highlights issues surrounding the relationship between people and place. Both Park and Abbott advocate the need for a new perspective (one that reconnects people and place) and allude to possible gains from such endeavours. However, their studies offer less in the way of providing practical solutions. It is in this space that this research is positioned; providing solutions and possibilities that endeavour to reconnect people with place.

Key questions that arise are: How can design assist in the changing of attitudes towards Public Conservation Land and create interventions that heighten user engagement? How does one encourage engagement within the landscape that will shift attitudes from a dominant picturesque ‘terra nullius’ to something more inclusive, while contending with maintaining the integrity of place? Moreover, can design intercede in reducing disconnected behaviours while maximising engagement and improving the user experience?
CHAPTER THREE: EXPERIENCE-ORIENTATED MODELS
Chapter Three: Experience-orientated Models

The previous chapter identified a number of key conceptual frameworks that relate to instrumentality, interaction, and co-production. After close examination it was considered that between them – Nathan Shedroff’s model of Experience Design and Tim Ingold’s model of landscape offered the most potential for further study. During the literature review process, schematics like the one developed for place attachment were also developed. This process identified both Shedroff’s and Ingold’s work as being potentially fruitful approaches from which to explore opportunities for designing interactive engagement of PCL. This chapter sets out to introduce these frameworks in more detail.

3.1 Nathan Shedroff’s Experience Design

Nathan Shedroff is a leading researcher in the field of interaction design with particular emphasis on user experience. Research undertaken by Shedroff has become forefront to that of Experience Design as a wider discipline and is regularly cited. In 1994 Shedroff published ‘Information Interaction Design: A Unified Field Theory of Design’. This was one of the first publications introducing and outlining the necessity and importance of tailoring the components that contribute to the creation of successful user-experiences (Shedroff 1994). All the focused primarily on the design of digital interfaces, Shedroff’s theory has undergone a number of iterations to include the wider experience. His first book ‘Experience Design 1’ (Shedroff 2001) introduces a toolkit for designing experiences, while his co-authored book ‘Making Meaning’ (Diller, Shedroff et al. 2005) emphasizes the need for meaningful experiences. In his second edition of his first book, ‘Experience Design 1.1’ (Shedroff 2009) he expands on his model of Experience Design through the articulation of six key dimensions that make up an experience. It is this latter model that is a particular focus of this research.

Shedroff positions Experience Design as an overarching discipline that incorporates a wide set of disciplines, rather than a separate form of production as described by Pine and Gilmore’s experience economy. It is in the combining of products, communication, services, and events that
make experiences unique and valuable. Nathan Shedroff states “all experiences are important, and we can learn from them” and “the elements that contribute to superior experiences are knowable and reproducible, which make them designable” (Shedroff 2009, p.2). He believes that extracting these elements will allow developers and designers alike to learn from, adapt, and implement such elements in their work, subsequently creating better and more engaging experiences. In ‘Experience Design 1.1’, Shedroff analyses a number of examples to develop a comprehensive view of the wide range of factors that make up the complex fabric of an experience. The examples used by Shedroff extend from the musical production ‘The Lion King’ to the online social network ‘Twitter’. Each example showcases a specific theme, such as, participation, identity, point of view, sensorial design, time, and motion. This complexity makes defining an experience, and more importantly, defining what is to be designed, increasingly difficult. Shedroff highlights the need to identify an experience’s boundaries. These boundaries help differentiate not only where an experience begins and ends, but also meaning, pacing and limitations. To assist designers in identifying these, he proposes experiences have the following six key dimensions: significance, breadth, intensity, duration, triggers and interaction (figure 3.1). Within each dimension, Shedroff offers a set of elements that contribute to the dimension. These act as prompts for identifying the dimension boundaries (Shedroff 2009, p.4-5).

3.1.1 Six Dimensions Explained

‘Significance’ is the first dimension; the elements include function, price, emotion/lifestyle, status/identity, and meaning. These elements focus on how users relate to the products, services, events, and experiences, and the qualities that contribute to the decisions, habits, and user buy-in, such as: does it do what they need at a price they are willing to pay; does it make them feel good; does it represent them; and does it line up with their personal values and priorities? Shedroff compiled a list of 15 universal core meanings (figure 3.2) (Shedroff 2009).

He argues that the success and creation of truly meaningful experiences relies on the strategic lining up the key meaning priorities of the end-user, client and those reflected in the facilitating
of the experience. It is these that can create a stronger impression and connection between the stakeholders and the experience (Shedroff 2010).

‘Breadth’ is the second dimension and its core elements include product, service, brand, name, channel/environment, promotion, and price. Much like significance with its strong audience focus, breadth is more focused on the client and calls for an examination of the breadth of outputs, media, and touch points being or to be provided. Breadth prioritises consistency and coherence across all outputs, which builds trust and integrity. People generally do not trust the inconsistent or incoherent, as mistrust increases the level of people engaging decreases (Shedroff 2010).

The third dimension is ‘Intensity’ and includes reflex, habit, and engagement; this dimension explores the appropriateness and opportunity of experience. In short, reflex happens instinctively and often too quickly, habits occur when the audience is not truly engaged or aware and engagement is when the audience is actively engaged in the experience. Shedroff argues that true effectiveness exists in the engaging of the audience. He argues the value of this dimension is in evaluating where an experience currently resides and so an exploration of opposing intensities for unimagined opportunities can be prompted (Shedroff 2010).

The ‘Duration’ dimension is divided into four elements: initiation, immersion, conclusion and continuation. There is a linear structure and flow to how an experience is experienced. Every experience involves time; from the moment the audience’s attention has been attracted (initiation), to the engagement of the experience itself (immersion); and to the point the experience ends or the audience’s attention is focused on something else (conclusion). Each of these elements has a significant role to play: the initiation phase is focused on drawing the audience in, immersion is about keeping the audience entertained and sustaining the experience, and the conclusion is about providing adequate resolution or reward ensuring the audience does not leave in an unresolved and dissatisfied or confused manner. Continuation is the last of the duration elements and is focused on...
Chapter Three: Experience-orientated Models

3.2 Tim Ingold’s Temporality of Landscape

The literature (in particular Park, 2006, and Abbott, 2010) has highlighted a necessity for a new perspective of and relationship with landscape to be undertaken; a perspective that assists in moving beyond a picturesque ‘terra nullius’ to one that fosters engagement and connection. It is articulating the drivers for these qualities of connection that Tim Ingold’s Model is influential.

Ingold’s conceptual model of the landscape is driven by a notion of connectedness and temporality. Nothing exists in isolation, and everything is in a state of perpetual transformation that both affects and is affected by the surrounding activities and landscape processes. Ingold argues that such an understanding fosters an instrumental understanding of landscape and the role humans play within it (Ingold 2000). For Ingold, the basic act of walking through a natural setting is an act of dwelling. As such we as people are as much part of nature as nature is a part of us. Just by being there we have affected the processes and patterns that exist. In addition, we move through the landscape, and this motion is dictated to by time and changing affordances (Ingold 2000).

As a way of further understanding Ingold’s position, part of this research involved developing a visualisation of his model (figure 3.3). Its purpose was to translate Ingold’s position into a ready tool for subsequent use in the design process. The fundamental layout was drawn from the notion that an individual’s life is part of all human life which nests within the wider patterns of all life on earth, which in turn is dictated to by the life processes of the world and time.

The model highlights the 6 main elements explained in Ingold’s essay on the ‘Temporality of Landscape’ and which are landscape, time, the individual observer, taskscape, all other life, and the interaction or relationship occurring between the elements (Ingold 2000).

Ingold defines ‘Landscape’ as “the world as it is known to those who dwell therein, who inhabit its places and journey along the paths connecting them” [Ingold 2000, p.193]. In other words, the
Chapter Three: Experience-orientated Models

‘Time’ is an inseparable constant to landscape and dwelling, Ingold discusses that dwelling adheres to two primary constraints of time: social and astrological. Astronomical time refers to the process of day, night, and the seasons; whereas social time refers to the cultural calendar such as events, values and social structure, and these differ between individuals and societal groups (Ingold 2000, p195-197).

The ‘individual observer’ is the immediate dweller, the person whose viewpoint has been taken up. This viewpoint will inherently be affected by personal values, beliefs, and motives, for each individual sees the world independently and will imbue it with meaning accordingly. In addition, the dwelling activity the individual engages in will demand a certain type of movement and this dictates a unique relationship between the individual and the environment (Ingold 2000, p199-198, 207).

The ‘Taskscape’ defines the multitude of activities that exist in the landscape. These activities can be individual or societal and are the result of day-to-day life that is undertaken by all forms of life existing in the landscape (Ingold 2000, p194-198).

‘All Other Life’ denotes all life external to that of the individual. This includes humans, animals, insects, plants, organisms (such as bacteria) and the life-processes of the world (tides, wind, sun, tectonic movement, volcanic activity). All of these have the power to transform a landscape and dictate what taskscape a landscape will afford, subsequently unfolding the complexity involved (Ingold 2000, p199-200, 203-206).

‘Interaction and Relationship’ relates to the occurrences between the elements; this requires the acknowledgement that nothing exists in isolation. In dwelling in a landscape, an individual encounters other life forms and the activities of these. Inherently the individual will attend to and

Figure 3:1: Model of Ingold’s theory of ‘Landscape Temporality’.

FIGURE 3.1: Model of Ingold’s Theory of ‘Landscape Temporality’

*Figure 3.1* Model of Ingold’s theory of ‘Landscape Temporality’.
adjust his or her movement accordingly; for example, the hunter is particularly aware and cautious of his movements and how this effects the movements of his prey and vice versa (Ingold 2000, p199-200).

Ingold argues that breaking down the landscape will lead to a heightened understanding and in doing so will allow for the removal of such fragmentation, as it is in the combination of these (in their totality) that make landscape (Ingold 2000). It is this aspect that opens up potential for a more inclusive and interconnected relationship with place, and with it opportunities for design-based disciplines to generate stronger understanding of place.

3.3 Chapter Discussion

As was observed at the beginning of this chapter, Shedroff’s and Ingold’s models offer considerable scope as design tools to generate meaningful interactions with place. In terms of this research and its goal of increasing experiential depth to peoples activities in PCL, it is proposed to apply these tools as developmental tools. In this regard, this research travels in two directions; first how can Shedroff’s and Ingold’s model be used to strengthen design-based solutions for PCL and second, what is the comparative value of this model for generating meaningful design solutions. As noted in terms of Shedroff’s framework, can his model assist in the identification of and extension of opportunities, gaps and concepts? Likewise, can Ingold’s framework assist individual park users to gain personal experiences and understandings of place? Can we design something that prompts a moving through and awareness of time and place? In addition, how can design contend with the perpetually changing landscape?

However, before such work begins it is necessary to return to New Zealand’s PCL and the investigation carried out by this researcher to identify specific design opportunities to apply Nathan Shedroff and Tim Ingold’s models. For it is important to realise that while in this dissertation, Ingold’s and Shedroff’s models are presented prior to the series of design phases, the actual investigation and detailed examination of the models took place in parallel to the following scoping work undertaken at both Arthur’s Pass National Park and Leith Saddle, and from which specific opportunities for this design-directed research were identified.
CHAPTER FOUR: RESEARCH DESIGN
Chapter Four: Research Design

The research approach undertaken in this dissertation is influenced by a number of design researchers. This section outlines literature that informs the approach taken and in particular emphasis on design-led research, a multidisciplinary approach and a research-driven inquiry in which it is default to separate the researcher from the research.

Design-led research employs the discipline of design -the practice, strategies, tools and processes- as the core research method. This direction privileges knowledge gained through the process of designing. Tim Brown advocates: states design thinking "is strategic, it pulls 'design' out of the studio and unleashes its disruptive, game-changing potential" (Brown 2011, p.381).

Design Thinking is a process that employs design to elicit innovation, and innovation that comes from direct observation and the blurring of "boundaries between creators and consumers. It is not about 'us-versus-them, or even 'us-on-behalf-of-them'. For the design thinker, it has to be "us-with-them" [Brown 2011, p.382], for we are all part of the same world and in part consumers of that world. Brown outlines five key dimensions of design thinking: empathy, integrative thinking, optimism, experimentation and collaboration (Brown 2008). It is these characteristics that prioritise the examination of the problem, context or opportunity from multiple entries or viewpoints. This flexibility of the design thinker and the processes employed aligns with other models that encourage the use of design and designers to lead the innovation process. Roberto Verganti discusses the benefits of using designers in such a way: it moves design beyond a styling exercise that occurs after any substantive design decisions have occurred. According to Verganti the role of the designer is that of a broker of languages, utilising the designer’s ability to understand, analyse, and translate various languages such as style, meaning, and social-cultural aspects, across industries and contexts (Verganti, 2001, p.34). In much the same way Romedi Passini advocates for a multidisciplinary approach to solving wayfinding problems – for it is in the knowledge that wayfinding involves a number of various processes that are equally attached to the individual, place and context. If we left it to the neurologists, we would have known about the brain, had we left it to psychologists we would have known about...
This dissertation seeks to be active in supporting a design research culture grown from an unfolding process of designing and reflection. This research follows a multidisciplinary and layered approach, enlisting various design-led tools and strategies as indicated by Ingold’s notion ‘you know as you go’, allowing the research to determine the direction and approach necessary for subsequent work.

During the research, six distinct stages were sequentially undertaken with the results of the previous work providing the basis for that which followed. These are schematically diagrammed overleaf (figure 4.1) and are:

Stage One: Observational Scoping Study of Arthur’s Pass National Park
Stage Two: Wayfinding
Stage Three: Concept Generation
Stage Four: Implementing Shedroff’s Experience Design Model
Stage Five: Implementing Ingold’s Model of Landscape Temporality
Stage Six: Iteration Compilation - refining concepts.

The schematic describes the iterative way in which a number of approaches were undertaken. At the conclusion of the research phase this schematic is revisited as the research process and respective value of the different stages are discussed (Chapter Ten).

Sarah Whatmore discusses a number of issues surrounding research philosophy and the social sciences. The most relevant to this research, is the notion that as the researcher delves deep into their field, often their relation to the world becomes increasingly remote. There is also a tendency to render the subject of the research as a passive non-changing object. However, the world is not passive, nor unchanging, as such Whatmore argues that it is healthy to not know what or where the research may lead. In this, the researcher has to work in a paradigm in which “the joy of not knowing” is extended (Whatmore 2003, p.98).

Paul Carter argues that, unlike traditional research, creative research does not produce straightforward answers but rather “creative research respects the materiality of thought - it’s localisation in the act of invention - has a different object. It studies complexity and defends complex systems of communication against over-simplification. It explores the heterogeneity of cultural identity, the always unfinished process of making and remaking ourselves” [Carter 2004, p.15]. The value of this exists in the creative researcher’s ability to elicit unimagined possibilities: or in other words “to make possible a new conversation” (Carter 2004, p.5).

This dissertation seeks to be active in supporting a design research culture grown from an unfolding process of designing and reflection. This research follows a multidisciplinary and layered approach, enlisting various design-led tools and strategies as indicated by Ingold’s notion ‘you know as you go’, allowing the research to determine the direction and approach necessary for subsequent work.

During the research, six distinct stages were sequentially undertaken with the results of the previous work providing the basis for that which followed. These are schematically diagrammed overleaf (Passini 2003, p.98). Abbott suggests for design-directed research there is the value in going over already tilled ground, for opportunities exist for design as a relatively novel research method – to uncover possibilities where others have moved on (2008).

This dissertation seeks to be active in supporting a design research culture grown from an unfolding process of designing and reflection. This research follows a multidisciplinary and layered approach, enlisting various design-led tools and strategies as indicated by Ingold’s notion ‘you know as you go’, allowing the research to determine the direction and approach necessary for subsequent work.

Passini reveals that each discipline does what they know best, but it is in the bringing together of this knowledge that value is gained. Therefore, the multidisciplinary approach becomes fundamental. Passini argues this approach is not one where professors of other disciplines are brought in to direct, but rather a practical undertaking of design and social science. It is in this that the design researcher has strength, for the design researcher employs both research and design to solve problems and develop sound solutions (Passini 2002, p.98). Abbott suggests for design-directed research there is the value in going over already tilled ground, for opportunities exist for design as a relatively novel research method – to uncover possibilities where others have moved on (2008).

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CHAPTER FIVE: ARTHUR’S PASS NATIONAL PARK
OBSERVATIONAL SCOPING STUDY
As noted in chapter two, Park and Abbott both identify a need to change the way people understand and interact with both issues of conservation and also PCL. For Abbott, this future consists of a more interactive and engaged user, and he notes potential to achieve these through track and equipment design. The call to engage users further in the conservation estate is prominent, yet their studies offer limited examples that could foster such a future. To understand and identify areas of opportunity that may assist in answering such a call, an observational scoping study of Arthur’s Pass National Park (APNP) was undertaken. The contributing factors to choosing APNP as the study location include; the enthusiasm of field staff to welcome such work, the diversity of landscape and altitude within a small sample area, a relatively low level of park redevelopment, and the high volumes of both park users visiting the area and also potential park users passing through on their way to and from the West Coast. In setting out to identify...
opportunities, three key criteria were established: 1) opportunities must be instrumental in shaping people’s experience of the park; 2) be located on a physical site; and 3) fit within the scope of a Masters research and the time available.

5.1 Arthur’s Pass Experiences

The scoping study was undertaken during a four-day trip (March 18–21, 2010) to Arthur’s Pass (figure 5.1), where together with a group of fellow research students APNP was experienced. Through their individual and shared experiences, the group reflected on the experiences APNP afforded. These studies included visiting the Visitor Centre, talking to field staff, tracking kiwi, and walking a number of short walks. Each study was prompted by a number of IDEO methods. These studies were recorded in two key ways: trip workbook, and a photographic image library. This chapter explores each record as a means of identifying the key experiences encountered and the insights gained from each study.

IDEO Methods and corresponding cards are tools commonly used in the field of design and whose aim is to keep the focus on human centred design and innovation. The method cards are grouped into four categories: ‘LEARN’ – analysing collected information in-order to identify patterns and insights – ‘LOOK’ – observing as a means to discover – ‘ASK’ – enlisting people to elicit relevant information – and ‘TRY’ – gaining knowledge from trying or using the product (IDEO 2003).

The APNP scoping study used the following IDEO methods:

The method ‘Try it yourself’ prioritises insights gained through the activity of trying a product, prototype, service or experience. It prompts the designer to engage in trying the product being designed, providing an appreciation for the experience the actual users may encounter, including any physical, social, and emotional implications (IDEO 2003).

The ‘Camera Journal’ method uses a written or visual journal to keep a record of the user’s impressions, circumstances, and activities related to the context and product. This ‘self-conducted’ notation provides a rich resource revealing patterns of behaviour, points of view and personal observations (IDEO 2003).

The ‘Draw the Experience’ method utilises the drawing of diagrams to express and explain the experience or activity, as a means of both revealing and debunking assumptions and also highlighting how people conceive and order their experience. In this research, this method is used to record experiences and gain an alternative point of enquiry (IDEO 2003).

The ‘Fly on the wall’ method asks the user to observe the uninhibited behaviours of people engaging with the product, activity etc. This method allows the designer to observe what users actually do and how long it takes, rather than accept what they say they did (IDEO 2003).

The ‘Extreme user interviews’ method asks the user to identify and interview individuals who are extremely familiar or totally unfamiliar with the product or context. These individuals are often able to highlight key issues, providing insight into the problem and designing the opportunities and improvements (IDEO 2003).

The ‘Still-photo survey’ method prompts the user to follow a planned shooting script, capturing specific activities, objects etc. The collective library produced can then be used to uncover patterns of behaviour and perceptions, as well as structuring and inspiring design ideas (IDEO 2003).

Based on these methods, the following studies were undertaken, visiting the Visitor Centre, monitoring kiwi, climbing the Temple Basin Track, walking a number of other short tracks, and reflecting on the trip.
5.1.1 Arthur’s Pass Visitor Centre

The Arthur’s Pass National Park (APNP) Visitor Centre is located at the south end of Arthur’s Pass village on the left side of the road where travelling from Christchurch to the West Coast. Its primary function is to facilitate visitors and their encounters of the national park. This includes: providing advice, up-to-date weather and safety information, and selling guides and maps of the local area.

In addition, the APNP Visitor Centre houses a museum space, acts as the base of operations for search and rescue, and offers educational programs for schools and holiday groups.

First impressions are of a space with an overwhelming amount of information and it takes a few moments to adjust and realise the Visitor Centre has been divided into different spaces roughly according to visitor needs and information zones (figure 5.2: images A-L).

The building is divided into six key areas. These are: 1) The entrance corridor (image C), which is open 24 hours a day as it contains crucial track and weather information and also trip intentions forms. 2) The main counter (image I), an information kiosk where visitors gain one-to-one contact with DOC staff. 3) A retail space (image J), selling items such as guidebooks, mountaineering equipment, and souvenirs. 4) A large room used for educational programs and workshops complete with a three-dimensional display of the Southern Alps (image L); 5) museum space (image F) that is full of information and artefacts relating to the local area including a restored coach (image G). 6) Staff room, sickbay and offices, these are used for both the general operations of the visitor centre and Search and Rescue base of operations.

While observing, the group had the opportunity to interview key Visitor Centre staff. The questions focused around Arthur’s Pass, visitor types and user groups, frequently asked questions and other general concerns they encounter. The staff came across as very approachable, enthusiastic, and highly knowledgeable about the local area, the activities it affords, and conservation. Furthermore,
their passion and advocacy for the environment and sustainable living is apparent. Their role is to provide and facilitate the services provided by the Visitor Centre and in addition the staff feel their role is pivotal in providing correct and authoritative information in order to keep visitors safe. Roughly 140,000 visitors use the APNP Visitor Centre annually. Key user groups include cruise ship passengers (brought in by bus and train), self-guided tourists, tramping enthusiasts, and school groups. In addition to those who used the Visitor Centre the staff member noted that there is a larger group of people who merely use Arthur’s Pass as a toilet stop when travelling from coast to coast and for them “the road is the primary feature”. Frequently asked questions of those who used the visitors centre include, “Where is the toilet?”, “Where can I purchase food and drink?”, “Where can I see kea?”, And “which way to Punchbowl Falls or Avalanche Peak?”

The staff member stated that one of the main concerns was the safety of people using APNP, the general underestimation of the dangers present in APNP, and visitors’ general unfamiliarity. The standard conversation, between staff and park users, investigates what the user wants to do in the area, what they had planned to do, how much time and what equipment they have, and how prepared they are including their level of fitness and previous experience (for example have they crossed a river, and was it a New Zealand river?). Visitor Centre staff use this conversation to assess whether the park user’s ability matches their intentions and whether or not they need to suggest a different itinerary. In approaching this staff felt it pivotal to have the Visitor Centre and staff interaction as key touch points for the park. It was however apparent that this part of their role was highly repetitive.

The Visitor Centre effectively acts as a gateway to the national park. However, the stark difference between the interior space (with its plethora of information) and the surrounding wildlands of APNP has the ability diminish the ease of transition between the interior human space and the exterior nature space. When inside the Visitor Centre users can no longer see the mountains towering over the village and to some degree could be in any Visitor Centre. It was noted, there is potential to better link the Visitor Centre’s interior spaces with the exterior national park, and more importantly, generate stronger links between the information and the park. In other words, can we take the inside out and bring the outside in?

The Visitor Centre is a key point of contact for many APNP visitors, many of whom have different needs, abilities, and perceptions regarding the national park and its use. Opportunities identified in this part of the scoping study include:

1) What opportunities could exist in staff-visitor relations?
2) How can the communication of dangers and understanding of APNP be strengthened?
3) How can the job of the visitor centre staff be made less repetitive?
4) What interventions could assist in deepening user’s understanding, and enticing potential users into exploring APNP?
5) How can the connection between the national park information and the physical national park be strengthened?
6) How can the transition between urban space and nature space be seamless?
5.1.2 Arthur’s Pass Kiwi Monitoring Program

The research team accompanied two DOC field staff as they monitored kiwi in the local area. The kiwi-monitoring program involves tracking and monitoring the health of each tagged bird. APNP is home to the Great Spotted Kiwi. The process of capturing and monitoring the kiwi as experienced by the research group is summarised in (figure 5.3). The process began with radio frequency equipment being used to locate the kiwi’s general location (each kiwi is given its own frequency). Once the general location is pinpointed the group heads in the corresponding direction. As the group entered the forest a quick debriefing was undertaken regarding what to expect when nearing the kiwi’s location with particular focus on what would happen when we found the kiwi and the necessity of treading carefully and quietly. Unfortunately the group was neither quiet nor careful managing to disturb the kiwi causing it to move location. The team now had to reassess not only where the bird had moved to but also how calm it was. Every few minutes the kiwi’s designated frequency was checked and its status reassessed. It took ten minutes for the kiwi to become relaxed and a calmer signal to be picked up. At this point the hunt could continue. This time the group was much more cautious of their movements. This resulted in the capturing of the kiwi, allowing the health check to proceed. This involved measuring the kiwi’s weight, growth, and general condition. The research group could not resist the opportunity to hold and get a photograph with the kiwi before it was replaced in the burrow. Moments later the kiwi exited the burrow and retreated for a less crowded location by scampering up and over the hill.

Being photographed and picking up the discarded kiwi feathers (figure 5.3 image G and figure 5.4 image A) appeared to be the ideal souvenir, and marked the group’s experience of capturing a kiwi in the wild. However, for many this kind of experience and souvenir is not possible. For these people their experience of coming to not only APNP (where a kiwi’s call can be heard just after sunset) but also New Zealand is more likely to be marked by the purchasing of a toy kiwi. The two toy kiwis (figure 5.4 image B) are both available for sale in the local Visitor Centre, yet have

Figure 5.3: Kiwi monitoring in Arthur’s Pass
A) Kiwi display in APNP visitors centre
B) Radio frequency tracking
C) Group briefing
D) Waiting
E) Hunt continues
F) Kiwi health check
G) Souvenir photos
H) Returning Kiwi to the burrow
I) Group bags, dumped for lighter load
J) Process diagram

Figure 5.4: Kiwi souvenirs
A) Discarded Kiwi feathers
B) Soft toy Kiwis available for purchase in the APNP visitors centre
5.1.3 Arthur's Pass Temple Basin Track

The Temple Basin Track is located 5 kilometres north of Arthur's Pass village. This half-day walk zigzags up the hill steeply at times before opening out at the Temple Basin Ski Club. The alpine vegetation is lush, varied and clearly visible to those with a keen eye (figure 5.5). In addition one can also see the remnants of ski field operations ranging from towlines to abandoned ropes (figure 5.5 image F). DOC has classified Temple Basin Track as a ‘tramping track’. This means the park user can expect to undergo a challenging tramp or walk on mostly unformed track with steep, rough, muddy sections and unbridged stream and river crossings. In addition the route is often marked by markers poles or rock cairns. Tramping tracks are recommended to people with strong fitness, moderate to high level of backcountry skills and experience (including navigation and survival skills - as the weather can change rapidly) and who are well equipped with sturdy footwear (tramping boots are recommended) (DOC 2009). The track was arguably on the lighter side of the DOC classification as it had a rather clear trail and did not include any unbridged water crossings. However the track was rough and many steps were poorly maintained whereas others were much larger than that of the average person’s natural stride and comfortable step height (figure 5.5 image K). This causes park users to take either unnaturally large strides putting muscles under additional strain or to walk around the obstacle damaging plants and progressively eroding the edge of the track. The rugged terrain reinforced the necessity of being equipped with tramping boots, particularly when the track required the user to negotiate less stable terrain. The group’s level of tramping skill and physical ability varied considerably from those who tramped regularly unguided through New Zealand’s back country to those who would describe their experience as little to none and for whom tramping-like activities are rarely undertaken.

During the walk the group was asked to record their emotional state (figure 5.6). Moments of low emotional state were linked to physical exhaustion, tiredness, and not knowing how close the end was, whereas encouragement, rests, and a sense of nearing the end all affected the emotional state positively, giving the walker an added push to keep going. The climb was exhausting and...
gut-wrenching to attempt, yet fulfilling and amazing to conquer. That overwhelming sense of achievement outweighed any negativity – both emotionally and physically. Rests provided the group a moment to take a breath, grab a drink (Figure 5.5 image C), and take in the magnificent views of neighbouring mountains (Figure 5.5 image B). It was in these moments that the group gained a real sense and appreciation for the variances between individual’s skill level and ability. For example rest stops allowed for group members lagging behind to catch-up, however, as this member catches up the waiting group is often ready to go again. In effect this causes the last person to continue without sufficient rest and to subsequently fall behind once more.

Temple Basin was a relatively short and accessible track that offers the challenge and a taste of mountaineering for those who might previously not be able to afford such an experience. Subsequently it offers a strong sense of achievement. The map of the track (Figure 5.5 image A) became a lot more valuable after the climb, as it was a way to tie the stories to place, and provide additional facts such as elevation and track length. The map ultimately became a souvenir, to say ‘been there, conquered that’. In this way can the ‘been there, conquered that’ mentality be harnessed to entice and further engage people in the PCL of New Zealand. Is there a way of emulating the physically demanding experience for the physically unfit, or could alternate experiences be tailored to offer a similar sense of reward? If ‘one step at a time is all it takes’, how can an intervention encourage users to go further, and to be challenged out of their comfort zone in a positive and rewarding way?
Chapter Five: Arthur's Pass National Park Scoping Study

5.1.4 Short Walks of Arthur’s Pass

In addition to the previous activities the group walked a number of short walks in the area. The four short walks being explored in the following pages are: 1) Cockayne Nature Track, 2) Bridal Veil Track, 3) Devils Punchbowl Falls, and 4) Cass-Lagoon Track (see Bradley hut). Figure 5.7 locates the tracks in relation to one another, Bridal Veil Track and Devils Punchbowl Falls are located within walking distance from the visitors centre whereas the Cockayne Nature Track is located at the northern end of the park, and the Cass-Lagoon Track at the southern end, are a short drive away.

Cockayne Nature Track

The Cockayne Nature Track (figure 5.8) is a 30-minute loop track located on the west side of the divide, and is home to a diverse podocarp-broadleaf forest. The track starts from Kelly’s Creek carpark, gently climbs a small hill before looping back towards the carpark. Named after Dr Leonard Cockayne, a renowned botanist, the track supports a number of botanical labels that we found throughout the track. DOC classifies this track as a ‘walking track, this means users should expect an easy to moderate walk on clearly signposted and mostly well formed track, all stream or river crossings are bridged, some sections may be steep, rough or muddy, and is suitable for people with low to moderate fitness and abilities (DOC 2011-b).

This hidden gem presents a vastly different ecological environment from the tracks on the eastern side of the divide. This is due to an annual rainfall of 2,000-10,000 millimeters while the eastern side gets 750-2,000 millimeters (TeAra 2011).

The poor roadside signage, old interpretation, fallen trees, and lush undergrowth could convince an individual that they are the first visitors to this place in a long time. This sense of having stumbled upon a lost relic of the past ignites a sense of discovery. As the trail reaches the top of the hill the user encounters a somewhat strategically located bench seat, but it is not the perfect location that makes it so interesting instead it is the message carved into it, “what an awesome place to find a chair”. While nodding in agreement with the anonymous graffitist a sense of kinship is fostered.

Bridal Veil Track

The Bridal Veil Track (figure 5.9) takes roughly 90-minutes to complete a return trip and is classified as a walking track. Expectations of the track are the same as those described in Cockayne Nature Track: ‘gentle gradient with a short steep section and suitable for users with low to moderate physical fitness’ [DOC, 2011-c]. Beginning from Arthur’s Pass Chalet carpark the track crosses a footbridge before heading north up the valley, through lush mountain beech forest. The end of the track meets the highway; at this point the user can continue onto the historic Jack’s Hut and join up with another track, or return the way they came. The first half of the track is a well-defined gravel-based path ending with a short steep section preceding the Bridal Veil viewpoint, which then descends to the Bridal Veil creek bridge. In contrast, the second half of the track is more organically formed. It is
more rugged, with the exception of the occasional boardwalk crossing wet and muddy sections that requires the walker to manoeuvre around root systems and rock formations. The second portion of the track forces the user to undertake a more tactile encounter as the user seeks support from trees, rocks, and banks when negotiating the path. This encounter literally forces the user to get in touch with nature. Can this increased tactility be harnessed to create more interactive experiences? Furthermore, while venturing through the lush forest, with its patches of sunlight and the occasional bird song, it seems so easy to disappear into the nature only to be jolted back to reality every time a truck speeds down the main highway or the main pylons route crosses the track. However naive it may be to think one can escape from the factory of urban life, is it possible to reduce such inhibiting factors?

Devils Punchbowl Falls

The top of Devils Punchbowl Falls (figure 5.10) can be seen from the village and is one of the top attractions in Arthur’s Pass. The track is a 60-minute return trip and consists of a few hundred steps zigzagging uphill through mountain beech forest to a large viewing platform at the waterfall’s base. The view from this platform in one direction is the spectacular 131-metre waterfall and in the other a view of the mountains across the valley. DOC classifies this track as walking track (see description of expectations in Cockayne Nature Track). The great advantage this track has is the numerous viewpoints that offer the user a view of both the goal (the waterfall) and the distance travelled (reinforced by the view of the valley). The goal of the waterfall encourages the user to keep going, and push beyond the physical discomfort of the uphill climb. In addition the empathy of individuals descending the track - a cheerful smile and words of encouragement like ‘not far now’ or ‘it is worth it’ - also assist the drive to get there.

The track is heavily lined with timber structures making the waterfall easily accessible and subsequently has contributed to its popularity. However it could be argued that these staircases are potentially disconnecting the user from the environment as it inhibits tactility.

Figure 5.9: Bridal Veil Track

Figure 5.10: Devils Punchbowl Falls Track
Chapter Five: Arthur’s Pass National Park Scoping Study

Each of these four trails is located within 30 kilometres of one another, with Cockayne in the north through to Cass-Lagoon in the south. With such variety in terrain, vistas, challenge and grading APNP provides visitors with unique opportunities to explore and experience a range of environments within a small area. APNP has the potential to be not only be a prime tourist location but also an extremely accessible and varied nature encounter for people living in Canterbury, and the West Coast. In addition with the length of each track being relatively short, APNP offers travellers more than a toilet stop, or pretty vista through the car windows. How then do we encourage and entice potential users to stop and take a short walk? How could we communicate the location and length of trails more clearly?

Cass-Lagoon Track
The Cass-Lagoon Track (figure 5.11) from the Cora-Lynn Station carpark to Bealey Hut - forms the end portion of a 2-3 day tramping track. From the carpark it is a 10-minute walk uphill to Bealey Hut. The gradient is relatively steep yet consistent on a well-defined track, through beech forest complete with exotic pine and gorse, offering a different ecological environment. The last image is of a collection of twigs and mosses picked up along the track, together they make up part of the landscape but individually they speak only of themselves, presenting a revelation of the rich details each contain. The built amenities offer a glimpse into the activities of other park users. These include a stile utilised to keep the farm animals out and the hut used by trampers sheltering from the elements. The six-bunk hut is located in an open plateau hidden to right of the track that may easily be missed if not paying close attention.

Figure 5:11: Cass-Lagoon Track
5.3 Trip Reflections of Arthur’s Pass

On the final evening a discussion was undertaken reflecting on the group’s experience of APNP. The discussion focused on what individuals considered: the high and low points of the trip; noteworthy experiences, thoughts or points of interest; and the experiences they were most likely to share (figure 5.12: image A-C) depicts the group responses).

The ‘high and low points’ (figure 5.12 image A) panel reveals what the group found most enjoyable and most disappointing. The experiences to be found most enjoyable were those considered unique, special and irreplaceable, such as, tracking and holding a kiwi in the wild, meeting passionate people, and climbing to the top of a mountain. Whereas the negative responses (or lows) referred to things that inhibited a sense of freedom and the overall experience; these included poor footwear, weak knees, poor fitness, and governing regulations and policies.

The second discussion point reflected the experiences and thoughts the group found as noteworthy (figure 5.12 image B). These predominantly focused on aspects of perception and personal reflection, including altering preconceived ideas of DOC, the gaining of a greater awareness for nature and people, and the reflecting on personal fit within the environment and society.

The concluding discussion revealed the experiences the group were most likely to share, and correlated primarily with the place (in this case APNP) and the experiences it had afforded the group. These included: 1) spectacular sensory offerings (the sights, sounds, and textures), 2) the revelation that nature has the ability to challenge and draw more from the individual. In this, a connection is formed. As one group member stated: “place becomes you, you become a part of place” (figure 5.12 image C). In reflecting on the experience the group revealed how interaction and participation in a place can affect one’s perceptions, outlooks, and feelings towards place, society and oneself. Place and interactions with place have the ability to change us (both positively and negatively). From this comes questions relating to how design can intervene to generate increasingly positive experiences that park users cannot help but share, while reducing negative ones.

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5.4 Arthur’s Pass Image Library

The group was asked to take photos throughout their time in APNP. As dictated by IDEO ‘Still Photo Survey’ method, a planned shooting script was to be followed. This prompted the group to document 1) the locale: such as landscape, vegetation, environmental and man-made features, 2) the experience and 3) things the photographer considered noteworthy.

On return the trip images were compiled into a single library from which a sample was extracted (figure 5.13). The sample included images that are particularly descriptive in showing the area and experiences, and worked to prioritise images that invoked memories of the trip. From this a series of taxonomies were extracted. The purpose of this was to identify any patterns of behaviour and perceptions that would assist in the identification of insights and opportunities that would structure the foundation for the designing process. It also created a subsequent reference tool during subsequent phases that could reduce tendencies to generalise the landscape. The following taxonomies are: 1) Locale, 2) Group’s experience, and 3) Things of note: wildlife and mark making.

5.4.1 Locale

This collection of images showcase the ‘locale’, revealing the diversity of vistas, environments, spectacular plant life and ecologies (ranging from the river bed, and grasslands to the beech forests, to alpine plateaus present within the relatively small area of APNP (figure 5.14). As such these make Arthur’s Pass a prime location to encourage, engage and promote a number of different experiences.
Figure 5.13: Taxonomy of Locale
Sample of images describing the locale.
Figure 5.14: Taxonomy of Group Experience
Sample of images describing the group experience.
Chapter Five: Arthur’s Pass National Park Scoping Study

Figure 5.15: Taxonomy of Arthur’s Pass Wildlife
Sample of images describing the wildlife/signs of wildlife as seen in APNP.

Figure 5.16: Taxonomy of Marks in the Landscape
Images depicting the marks humans made in the landscape.
5.4.2 Group Experience

The images captured of the ‘group experience’ reveal a snapshot of the experiences encountered (figure 5.15). The candid shots highlighting walking behaviour to the souvenir shots revealing a degree of motivations such as the victory poses that are part of the conquest, to say ‘I made it’ and ‘here we conquered that’. Other images showcase unique experiences that are intended for future reminiscing and sharing. The images of the group experience are primarily of the group engaging in the activity of walking, or resting before walking again. These highlight the prevalence of walking in the national park. Interestingly walking appeared to have occurred in single file with only occasionally two members walking alongside one another. This is somewhat reminiscent of Sharpe and Ewert’s notion that being alone together is a significant part of the wilderness experience. However, this may also reveal how the group naturally deals with the differences between individual ability and fitness level. In addition, the images reveal that when requiring a rest, individuals sat on any available suitable surface generally somewhere dry, rigid, and flat (tree trunk, step or ground). The point raised is that it may not be necessary to have tracks filled up with benches and built amenities, if walkers have the skill to make do with what is provided by nature.

5.4.3 Wildlife

‘Wildlife’ (figure 5.15) sightings are relatively and increasingly scarce. The images captured of local wildlife are predominately of those dead preserved for display in the Visitors Centre or signs of death to come such as traps, bait stations, and other devices used to monitor pest numbers. With the exception of cheeky kea found foraging in the village and the kiwi encounter by the group, one is lucky to hear wildlife let alone see it.

5.4.4 Mark-making

Mark-making in the landscape, from the ‘I was here’ graffiti to the tracks scarring the hillside (figure 5.16). Some are temporary like a footprint in the muddy soil, with others, like the stone seat (figure 5.16), more permanent and left to decay. How can designers contend with the notion to leave no trace? Can a ‘leave no trace’ mentality be fostered in a place that affords activity, adventure, discovery without losing the richness and enjoyment of marking an accomplishment or tying of oneself to a place or experience?

In reviewing the images it is intriguing that a number of things were not photographed; these included the group’s trip to and from Arthur’s Pass, the accommodation, and things characterised as mundane or undesirable. The lack of images of the accommodation raises the question whether the lodge held a more utilitarian and separate role than that of the identified experiences. Furthermore, the only images of the village were that of the Visitor Centre, its car park and national park signage. What is it that makes these increasingly urban or familiar spaces not part of the considered experience? The photos taken of the group all contained smiling faces with a sense of joy and accomplishment. Regardless as to whether they are posed or candid they neglect to show the challenge, the falling down, the rubbish, the rain and the exhausted and tired faces associated with pushing the body to its limit. We capture the desirable, pristine, picturesque and ideal qualities of the experience, but what about the things that appear to hold a more functional role in facilitating experience? Likewise, what about ‘the ugly’ elements – do they not add character to the stories retold, moreover do these things not also qualify as part of the experience?
5.5 Arthur’s Pass National Park Summary of Insights

The observational scoping study of Arthur’s Pass has identified a number of key insights that inform the proceeding phases of this research. These have been summarised below.

Diverse users and diverse abilities

The National Park is encountered by tens of thousands of people each year and, each person has a different level of skill, ability, and previous experience. It is this complexity of differences that make assuming a particular degree of ability so problematic and dangerous. Furthermore, users’ ability will often determine how long it will take someone to complete an activity, or how much he or she will engage. Therefore, how can national park interventions cater for a more inclusive audience, and appreciate the different degrees of ability? In addition to the range of abilities between users, it is evident, that among the diverse users there are diverse value systems, and degrees of acceptable intervention or signs of human activity. Is there a way to entice new users while remaining sympathetic to the values of seasoned users?

One-dimensional experiences

The ontology of the track (its terrain, weather, difficulty, and usage) will determine how the user engages with the environment. A well-graded track that has a gentle slope, well maintained steps and boardwalks reinforces a seemingly one-dimensional experience that is primarily visual. Whereas, a track that requires the user to manoeuvre around obstacles to find solid footing forces the user to employ more tactile senses and, as such, offers a multi-sensory or multi-dimensional experience. Creating an opportunity for further engagement and interaction is likely to enrich the user experience. However, can a multi-sensory experience be initiated whilst maintaining an ease of use?

Sense of accomplishment

As nature draws a limit from the user and demands them to go further, every step becomes a small victory. Meeting the challenges nature puts up offers a personal sense of achievement and accomplishment. It is this gratification that is a welcome reward, as you discover you can do something beyond your own expectation, and with it a memory that becomes something unforgettable. But can similar senses of achievement be emulated for those unable to complete a walk or reach a mountaintop or vista?

Passion for conservation

Experiencing firsthand and participating in the work being done by DOC, coupled with the meeting of passionate and enthusiastic DOC staff, offers a welcome change of perception: from one that views DOC as a governing body concerned with restriction and governance, to one passionate about PCL, including its protection and advocacy. Can design interventions reflect and elicit a conservation ethic among users, which fosters a connection and sense of investment in PCL of New Zealand?

It is different here

Through encouraging a sense of locality and local identity can National Parks break away from the preconceived notions that fuel the ‘it’s all the same’ and ‘seen one seen them all’ mentality in-order to re-engage a sense of wonder amongst the general public?

We see, but are we looking?

The natural environment is full of wondrous and spectacular things, from the insect to the mountaintop, a spectacle at many scales that are there for those who seek them out. However, often in our haste to climb a mountain or see a grand vista we miss out on discovering the micro wonders surrounding us. How can we encourage users to look at the marvels encased in the landscape without dictating to them or explicitly saying look here, or look there? How can we re- invigorate a sense of discovery?
Chapter Five: Arthur’s Pass National Park Scoping Study

Given the large amount of scope for design-based interventions in this research it became necessary to focus on a particular type of interaction in the national parks to ensure it fitted within the expectations of a Master’s level study. On viewing both my own insights and scoping studies it became apparent that I had a strong interest in wayfinding opportunities beyond the seemingly mundane ‘Orange Triangle Marker’ currently employed DOC. Also it is an aspect of the National Park that is part of a broad spectrum of user’s experiences. As well as offering a reassurance of locality and orientation, the track marker offers a constant element during a walker’s experience. Given this, it was decided that the research would examine the potential that wayfinding systems could offer track walkers in parts of APNP.

This choice of wayfinding as a means for designing a mediated experience lies in the premise that when we first encounter a place, we are not fully confident with finding our own way, so we rely a lot on the existing wayfinding devices to guide us - from maps and brochures, to tree markers and track signage. As such wayfinding becomes particularly instrumental in these first encounters. Rather than simply serving a very utilitarian role could national park wayfinding be harnessed to further engage, encourage, communicate with, and educate users about place? In addition, given the prevalence and consistency of the current solution employed by DOC, there seemed a strong opportunity to evaluate whether design research that focused on enhancing walkers experience could develop innovative outcomes that pushed current approaches. This potential for wayfinding design was closely examined through the following detailed site-based project, which also confirmed the potential and validity of the chosen research direction (figure 5.17).

The experience offered by the ‘Introduction to Arthur’s Pass Birdlife’ concept is one that prioritises the opportunity for users to seek out markers and learn about the national park and the species that inhabit it. The system is comprised of two core components – the markers and the information. The markers are life-size bird shapes, representing a number of endemic species that can be found in APNP.

5.6 Discussion of identified opportunity

The scoping study identified many key insights regarding national park experiences that have potential for design intervention that both heightens user’s experiences and broaden the audience for national park experiences. These potential interaction points include: Visitor Centre interventions, roadside signage or intervention, on-track/in-park intervention and urban filtration including online media. The aim of Visitor Centre interventions is to assist DOC staff and equip users with an accurate knowledge and adequate preparedness, so easing the transition between urban place and nature space. Roadside signage and the like hold a primary objective of enticing, communicating, and luring potential users into the park: and of moving people from simply driving through to engaging in the national park. In-park/on-track interventions can be instrumental in increasing interactivity between user and environment, and in engaging the user in their understandings and encounters with nature. Urban filtration explores the possibility of engaging people in more urban spaces and includes online media that increase education, communication, and inspiration before and after a national park encounter.

The photographs captured during the trip are not only evidence of our trip but hold personal significance and are bound uniquely to our story; a connection with a time, place and those sharing the experience rather than just a place and the activities it affords. How can memorable experiences that allow places to become cemented in memory and which form strong attachment be facilitated, even developed? In addition to examining the photographs taken it can be just as important to examine that which is not photographed, as this reveals certain aspects of the trip being considered unimportant. This in turn raises the question, what elements qualify as being part of the experience? And, where or when does that experience begin?

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Each marker is placed in the environment according to the habitat behaviour of the represented species. The information component is handheld and independently navigated by the participating user: this may take the form of a field guide or smart phone application. The portable nature of the information allows the user to control the level and speed of the information to be communicated, increasing the sensory richness of the experience. The portable nature of the information component also reduces the saturation of interpretation and information panels required along the track. It is this aspect that allows the intervention to remain sympathetic to the needs of park user’s not participating in the activity. The core premise of this experience is its ability to provide park users with a way to engage and learn about the surrounding environment: the direct proximity to the environment increases the depth and richness of communication. In this solution landscape plays a significant role in the users experience to converse with the landscape, as they uncover markers and tease out information. For the purposes of illustration the visualisation utilises Arthur’s Pass bird life as the subject matter, though this could just as easily have been insects, plants, historic, or even a combination of ecologies.

**Figure 5.17: ‘Introduction to Arthur’s Pass Birdlife’ concept**

The ‘Introduction to Arthur’s Pass Birdlife’ an interactive system that combines wayfinding with educational information and media about local wildife. It is an interactive and educational system that delivers field guide and hands-on learning about wildife in natural environment.

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For more information about us you can use the **iApp**.

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### Introduction to Arthur’s Pass | Birdlife

#### Where to Find the Different Bird Species

<table>
<thead>
<tr>
<th>Birdname</th>
<th>Size and Feet Type</th>
<th>Habitat</th>
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<tbody>
<tr>
<td>Kea</td>
<td>50 cm.</td>
<td>Alpine</td>
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<tr>
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<td>30 cm.</td>
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<td>Whio</td>
<td>30 cm.</td>
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<tr>
<td>Morepork</td>
<td>30 cm.</td>
<td>Alpine</td>
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**Birdlife Classification System**

- 153 out of a total of about 200 species are still living, 16 of these since 1840. Under the ‘New Zealand Threat Classification System’ 33% of bird species have become extinct, 16 of these since 1840. Under the ‘New Zealand Threat Classification System’ 33% of bird species have become extinct, 16 of these since 1840.

#### Crystal Clear Mountain Streams

Crystal clear mountain streams are an important aspect of New Zealand’s landscape and provide a habitat for a variety of wildlife. These streams are home to native fish species such as the trout and eel, as well as providing a source of clean water for human use.

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**Figure 5.18:‘Introduction to Arthur’s Pass Birdlife’ concept**

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### Introduction to Arthur’s Pass | Birdlife

#### Where to Find the Different Bird Species

<table>
<thead>
<tr>
<th>Birdname</th>
<th>Size and Feet Type</th>
<th>Habitat</th>
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<tbody>
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<td>Alpine</td>
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<td>Tuki</td>
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CHAPTER SIX: SCOPING NATIONAL PARK WAYFINDING
Chapter Six: Wayfinding Scoping Study

This chapter examines relevant wayfinding literature, its definition, key attributes and processes, as well as discussing potential limitations and any relevant studies of wayfinding in natural settings. It then undertakes a close examination of current APNP on-track wayfinding fixtures and systems.

6.1 Wayfinding Literature

The term wayfinding stands for (as the name suggests) finding ones way; in particular it addresses the cognitive and site-based processes and the tools employed to get an individual from one location to another. Romedi Passini suggests that wayfinding involves three core processes; 1) decision making and the developing of action plan; 2) decision execution and transforming decisions into physical behaviour; and 3) information processing underpinned by environmental perception and cognitive processes (Passini 2002, p.98). Whether it is to go to the other side of town, to a different hospital wing or walking through forest we employ wayfinding techniques to reach our destination safely and promptly. Peter Morville reminds us that when someone cannot find his or her way disorientation or becoming lost can be extremely debilitating and can very well lead them into dangerous situations; simply put he argues poor wayfinding can equal death (Morville 2005, p.29).

The behavioural processes involved are predominantly the focus of psychological research into human behaviour and include location identification and orientation, cognitive maps, spatial abilities and knowledge, and path integration or dead reckoning (Golledge 1999); For Golledge cognitive maps are fundamental to successful navigation, however he also states that these maps need not be complete and errors will naturally occur in the recording, recalling, and application. Such cognitive maps are never complete and are continuously being updated and corrected through ongoing experience. Furthermore the more experience one has with an environment the less one will rely on wayfinding aids and more on one’s own cognition. Golledge considers the two most common ways that a learning of an environment is formed are route-based knowledge and
A major limiting factor to effective wayfinding behaviour exists in ‘human ineptitude’: for instance, disabilities such as vision, mobility, literacy, and pose spatial orientation (Findlay 2004; Southwell and Findlay 2007). Wayfinding deficiencies seek tools, aids and devices that complement behavioural strategies. These strategies include navigation by means of following the stars, singing songs, the invention of the compass, and the creation and deciphering of maps. Studies regarding devices and aids that assist wayfinding such as maps, signs, markers, landmarks, navigational systems are commonly found in architecture and design research (Passini 1984; Lynch 1992). For design and architecture the focus is on the designed qualities of wayfinding system.

An additional perspective addresses wayfinding as spatial problem solving, and a discipline combining both human behaviour and design driven research (Passini 2002; Findlay 2004; Southwell and Findlay 2007). The discipline of wayfinding goes beyond simply understanding the processes and creating tools, or for that matter developing design standards or guidelines (Mühlhauser 2012; April, Crawford et al. 2013). Spatial problem solving requires an understanding of spatial problems such as issues with space organisation and circulation. This identifies the problem and allows for designers, architects, and planners alike to go about remedying the situation through eliminating the obstacle or providing the user with the necessary means to work around the problem. This can be done through strategic site planning, the use of environmental clues, utilizing tools and devices, or simply implementing graphic communication. As Passini writes, “signs are not seen just because they are there, they tend to be seen when they are needed” (Passini 2002, p.100). Additional challenges to wayfinding exist in the differing wayfinding abilities that exist between each user, depending on “age, gender, sense of direction, familiarity with environment, and chosen wayfinding strategy” (Southwell and Findlay 2007, p.112). Passini advocates the need for an interdisciplinary approach to wayfinding and spatial problem solving, and notes the need to bring together the expertise of architecture, site management, psychology and communication design. He argues for a particular emphasis on a user-centred approach that employs empathy and an understanding that not every user is highly literate with perfect vision.

In reviewing wayfinding literature, there appears to be few academic studies focused on wayfinding in natural settings. The majority of wayfinding literature focuses first on human behaviour and cognition; and second on signage and support systems for built environments such as hospitals, museums and cityscapes. However a comparative study ‘Wayfinding in Natural and Urban Environments’ (Claramunt 2008) reveals that even with environmental differences general principles of wayfinding apply. The identified principles include 1) the structuring of space as networks and the reliance on environmental features or landmarks, 2) the vocabulary used to describe orientation and distance favouring spatial orientation terms over time-based constructs, and 3) cognitive detailing is strengthened through repetition or recurrence of features. This implies the more time we spend journeying through an environment the richer the familiarity, cognition image, and subsequent recall of the place becomes.

In addition to these studies, the following studies related to wayfinding in a natural setting are worth discussing. A United Kingdom study by Katherine Southwell and Catherine Findlay, examines the efficacy of signage leading to public accessible woodlands (Findlay 2004; Southwell and Findlay 2007), Knox Laird examines the coloration and visibility of the New Zealand Track Marker, Orange Triangle (Laird 1993), and Stephen Espiner examines the use and effect of DOC hazard warning signs (Espiner 1999).

Research presented by Southwell and Findlay identifies some common issues surrounding visitor wayfinding in woodland areas. “Wayfinding challenges can become a significant barrier,
preventing people who are unfamiliar with the countryside from feeling confident about visiting new places.” (Southwell and Findlay 2007, p.111). Southwell and Findlay argue that wayfinding experiences influence the user’s perception of the corporate body managing the site, the area and their experience of that area. Poor wayfinding “can create uncertainty, frustration, and increased levels of anxiety and stress” (Southwell and Findlay 2007, p.112). Subsequently the role of planners, designers and site managers is to identify and eliminate wayfinding unknowns and difficulties. Southwell and Findlay argue there is a “general lack of fit between information provision and visitors information requirements” (Southwell and Findlay 2007, p.114). Some specific examples discussed are: i) inconsistency in names and labels used for the site can lead to confusion and uncertainty; ii) Lack of advance warning and reassurance in route information including instructions on how to get to the site; iii) Missing the site entrance, due to obscure or nonexistent signage; iv) Site illegibility in which information is poorly located or nonexistent despite the need for users to get reassurance about being in the correct place as well as offering general information regarding site facilities and activities available (Southwell and Findlay 2007, p.117). In addition to poor signage, site illegibility can also be a result of visual clutter and too many signs. Southwell and Findlay identify four distinct decisional stages required for meeting visitor information needs; i) pre-arrival information, “what is the site called?” ii) Route information, how do I get there? ii) Entrance information, where is the entrance? And iv) site information, what can I do and where do I go? In order to create effective wayfinding infrastructure, Southwell and Findlay suggest, at each decision point it is pivotal to address ‘people, place, and purpose’. In other words, who is the user, what information do they need where is the message needed?” (Southwell and Findlay 2007).

Laird’s paper examines the visibility of the ‘Orange Triangle Marker’ used throughout PCL of New Zealand. Research presented states that about 10% of population would find it difficult to find markers easily, and in addition this difficulty can be exaggerated when markers are unnecessarily restricted. Restrictions include; low lighting, background surface reflectance is equal to that of market, shadows and ‘snowflake’ lighting, oblique marker alignment, and viewing markers against bright backgrounds. The ability to find markers requires effective visual searches and significant cues include shape, colour, brightness and, contrast. Laird argues too often ‘detail’ is regarded as a primary cue. However ‘detail’ is secondary to the locating of the object, as it requires foveal vision (used when looking directly at the object). This means one is required to locate first and then use ‘detail’ for confirming identification. In addition he also notes that peripheral vision is finely tuned to movement as well as brightness differences. Laird recommends five means of enhancing marker visibility and these are “enlarge target area, increase material reflectance, higher visibility colour, utilise pattern or a unique shape, and enhance contrast” (Laird 1993, p.2-3).

Espiner’s research examines the extent of awareness and effectiveness of hazard warning signs at Fox and Franz Josef Glaciers (1999). Espiner explains that a hazard is a dangerous circumstance, whereas risk is the likelihood of becoming harmed by the hazard. He argues there is tension between real risk and an individual’s subjective assessment of the level of danger in a setting (perceived risk). A visitor’s previous experience, activity competency, cultural conditioning, and personality traits influence perceived risk. In addition while many visitors to natural environments are physically and mentally unprepared there is evidence that suggests people behave differently when away from home. Visitors are more inclined to engage in risky behaviours, and that these risky behaviours are more likely to be discouraged as knowledge of previous accidents is high. Espiner’s research revealed that 91.4% of visitors reported that they were aware of hazard signage at the site. However greater numbers reported seeing the signs than identifying the hazards themselves with 60% were unaware of the important hazard messages. This work supports the idea that too many signs may result in desensitising visitors, resulting in greater numbers ignoring warnings. Espiner’s paper concludes with a list of recommendations for hazard sign use. These include: increased differentiation between hazard signs and other information; implementation of illustrations which show a clear consequence for ignoring the warning; use of credible sources; keeping messages consistent throughout all communication points (Visitor Centres, brochures, preventing people who are unfamiliar with the countryside from feeling confident about visiting new places.” (Southwell and Findlay 2007, p.111). Southwell and Findlay argue that wayfinding experiences influence the user’s perception of the corporate body managing the site, the area and their experience of that area. Poor wayfinding “can create uncertainty, frustration, and increased levels of anxiety and stress” (Southwell and Findlay 2007, p.112). Subsequently the role of planners, designers and site managers is to identify and eliminate wayfinding unknowns and difficulties. Southwell and Findlay argue there is a “general lack of fit between information provision and visitors information requirements” (Southwell and Findlay 2007, p.114). Some specific examples discussed are: i) inconsistency in names and labels used for the site can lead to confusion and uncertainty; ii) Lack of advance warning and reassurance in route information including instructions on how to get to the site; iii) Missing the site entrance, due to obscure or nonexistent signage; iv) Site illegibility in which information is poorly located or nonexistent despite the need for users to get reassurance about being in the correct place as well as offering general information regarding site facilities and activities available (Southwell and Findlay 2007, p.117). In addition to poor signage, site illegibility can also be a result of visual clutter and too many signs. Southwell and Findlay identify four distinct decisional stages required for meeting visitor information needs; i) pre-arrival information, “what is the site called?” ii) Route information, how do I get there? ii) Entrance information, where is the entrance? And iv) site information, what can I do and where do I go? In order to create effective wayfinding infrastructure, Southwell and Findlay suggest, at each decision point it is pivotal to address ‘people, place, and purpose’. In other words, who is the user, what information do they need where is the message needed?” (Southwell and Findlay 2007).

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6.2 APNP Wayfinding

This section presents a loose examination of current Arthur’s Pass National Park on-track wayfinding fixtures. The still photo library of Chapter Five served as the resource for this. Four primary typologies were identified and these are: 1) DOC branded signage, 2) 1980’s National Park signage, 3) ‘Orange Triangle Marker’, and 4) other miscellaneous wayfinding fixtures.

6.2.1 DOC branded signage

‘DOC branded signage’ (figure 6.1) is highly recognizable and used throughout the country. The brand and construction is heavily standardized across a diverse range of uses. The typology opposite reveals five core categories 1) Track or site label (e.g. Arthur’s Pass Visitor Centre, Jack’s hut, and Cockayne Nature Track), 2) Directional guidance, 3) Interpretation based (e.g. providing map and additional information), 4) Hazard warning (e.g. avalanche warning, ‘danger rock fall beyond this point’, ‘track upgrade’), and 5) Restrictive signs prohibiting action (e.g. ‘no vehicles past this point’, ‘no dogs’ and ‘one person at a time’).

This strong uniformity offers users reassurance that they are in a wilderness landscape that is managed and governed by DOC. As such it offers a degree of comfort and confidence. However, in utilizing a distinct style with little variation, the hierarchy of information is lost, with a sign labelling an area holding the same weight as a sign highlighting a hazard. In addition this strong adoption of national benchmarks and branding rules does not offer a point of difference for each locality, fostering a potential complacency that of ‘its all the same’.

The literature discussed above highlights a number of issues, limitations and considerations to be aware of in regards to wayfinding both in human behaviour and use of interventions. No one strategy or tool is fail-proof, but with an awareness of such issues, remedies can be sought and limitations catered for. So, what limitations can be observed in New Zealand's natural environments? The following two sections looks to address this question.

signage); and avoiding using signs where not needed. Espiner considers maximising safety while preserving the experience as the central challenge to visitor management (Espiner 1999).
Figure 6.1: Taxonomy of DOC Branded Signage from Arthur’s Pass National Park
6.2.2 Older signage

The hand carved signs ‘1980’s national park signage’ (figure 6.3), are gradually being replaced with DOC branded signage. These signs offer a sense of nostalgia and history; giving an air of age and longevity that allows users to get in touch with a bygone-era. To some degree these relics were a refreshing change to the new standard, however their age and deterioration mean they do not have the same strength of authority.

6.2.3 ‘Orange Triangle Markers’

The ‘Orange Triangle Marker’ is commonly found on tracks that are classified as tramping tracks where the route is less defined. In addition, to the ‘Orange Triangle Marker’, DOC also utilises red, blue and yellow triangle markers to mark trap lines, however these are never used for walkers. The majority of the examples shown are from forested areas. The primary purpose is to aid walkers in remaining on the correct route, ultimately keeping them safe and reducing the likelihood of getting lost.

The primary issue with ‘Orange Triangle Markers’ is they exist in a living, and perpetually changing environment and without proper maintenance lose their ability to effectively guide user. For example as the tree grows it places stress on the nails fixing that marker (figure 6.5 image A) which eventually causes the marker to break off (figure 6.5 image B). In addition placement is often a compromise between availability of a suitable surface and the necessity of communicating the direction accurately.

Figure 6.4: Marker Maintenance

Marker use/implementation guidelines extract from DOC track maintenance handbook (DOC 2008, p45)
Chapter Six: Wayfinding Scoping Study

Figure 6.5: Taxonomy of Orange Triangle Markers
6.2.4 Miscellaneous directional signage

The first image is located at the end of the Bridal Veil Track (Figure 6.5), where users should turn right to head to a historic site and link up with a number of other tracks, or return back to village via the Bridal Veil Track as mentioned on the interpretive panel at the track's start. However, contradicting this, the sign alludes the walker may in fact turn left and travel down the highway back to the village. In addition the footpath is closed due to rock fall danger but the authority of this warning is broken down by the walking sign on the opposite side of the road.

In these taxonomies it can be seen that signs say a lot more than ‘you are here’, ‘don’t do that’ or ‘go this way’; they also tell us about their owners, society, history of behaviours and they can also hinder or damage the intended message. When posting signs it is important to take the surrounding environment into account. For instance, aspects of placement, other signs, height, viewpoint, and obstruction unavoidably affect the signs capacity to communicate its given message. Similarly areas containing multiple signs result in several communication issues, with the signs all competing for the attention of the viewer which can result in many being ignored. In areas where the signs contradict the environment or one another, confusion comes into play resulting in the deterioration of the message and authority of the sign(s). In addition the mere presence and sheer volume of signage reminds us that we are outsiders merely visiting the place. In the occurrence of too many signs the repetitive instruction can implicitly insult the viewer and their competence and authority. If one takes the other path only to turn back (image B) it now appears as the sign is pointing to the other path, which subsequently heightens a sense of confusion and insecurity. In addition the handwritten sign offers a sense of temporariness as it has been newly implemented due to a track washout recommending a new route to be taken. However even if this is the case its temporariness lacks authority.

The second set of images shows one sign from two different angles - viewed from below (heading uphill) and above (heading downhill). When heading uphill this sign is encountered just after a fork in the road; the sign appears to offer assistance yet the crossed poles and rocky threshold counteract this. If one takes the other path only to turn back (image B) it now appears as the sign is pointing to the other path, which subsequently heightens a sense of confusion and insecurity. In addition the handwritten sign offers a sense of temporariness as it has been newly implemented due to a track washout recommending a new route to be taken. However even if this is the case its temporariness lacks authority.

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6.3 Leithsaddle Observation

The previous work focused on wayfinding elements used in APNP (similar to those used throughout PCL of New Zealand), however the collection of images lacked strength of context and as such prompted a further observational study to gain valuable understanding and insight into 1) How the track influences the interaction between the walker and the surrounding environment, 2) How the surroundings affect marker efficacy and; 3) Considerations prevalent for designing wayfinding elements. For this Leithsaddle Track was an ideal location due to its proximity to the University of Otago, accessibility, length, vegetation diversity, track terrain, and similarities to those found at APNP. The entrance to this public track is located at the crest of Leithsaddle on Dunedin’s Northern motorway. The well surfaced gravel track begins with a steep climb through thick forest then, as the gradient eases, the vegetation becomes increasingly scrub-like before opening out on to a tussock plateau. From there a short climb brings the walker to the Swampy Spur trig, where there are panoramic views of the city and surrounding region. At this point the walker can choose to continue onto the adjoining Swampy Ridge Track, or return to the car park (figure 6.6 and figure 6.7).

Figure 6.6: Leithsaddle map
Track map, Dunedin Tracks and Trails (Hamel 2008, p.135).

Figure 6.7: Leithsaddle Track
Illustrating the track terrain changes.

so assists in their refusal to pay further attention. Another significant issue is the complexity of when groups of people are exposed to such mixed messages. As social beings we are more likely to follow the actions of others over the instruction of a sign and the more people who conform to the actions of others the more likelihood this action will become the norm. As a whole signage can offer an interesting commentary of a place’s history through the method or medium of creation, typography, and language used.

In examining examples of current PCL wayfinding it is apparent that there is an opportunity to increase the functions that APNP wayfinding systems perform. In the fieldwork it especially became apparent that the ‘Orange Triangle Marker’ had considerable potential to be something more than a tool to communicate to users that they are on the designated track. This is especially so given it is a constant fixture throughout a walk, and its placement at frequent intervals provides rich opportunities for increasing park user interaction. The question raised is what more could this utilitarian fixture offer?
Chapter Six: Wayfinding Scoping Study

The study is divided into three parts, the first an observational phase where the walker (myself) walked the track and noted any insights regarding the track user's relationship with the surrounding environment while in motion. The second involved taking a portion of track and implementing a set of different track marker designs in order to examine the relationship between the markers and the environment. Specific attention was paid to issues of location, placement, and visibility. The third part involves brainstorming key elements, limitations and considerations that contribute to the overall function of the marker as a means of identifying what characteristics may need to be considered in the design process.

6.3.1 Part One: Observing the user-track relationship

The observation phase focused primarily on the user’s relationship with the track and surrounding environment while in motion. The following images highlight the insights noted (figure 6.8, images A-H).

Image A) The more defined the path the less necessary track markers become, particularly in cases where human intervention in terms of track construction (boardwalks and built stairs) is high. As such these increasingly render track markers redundant. These situations offer potential for conventional markers to take on a new role, purpose or function.

Image B) Changing ground surface and terrain can demand the full attention of the track user. The more uneven the track the more the user is required to focus on his or her footing to negotiate obstacles.

Image C) When designing or implementing track signage or waymarkers it is important to be aware of situations where the message being communicated doesn’t match the surroundings. In this example the sign recommends that only experienced trampers continue beyond this point, yet...
the steps in the distance communicate a track that is well maintained and appears much the same as the track just travelled. This leaves a dilemma for the user as they decide between what they perceive and what they are being told.

Image D) Where steps are considered an uncomfortable obstacle, the track user may choose to negotiate the obstacle by walking around it. Unfortunately this action can accelerate erosion and cause damage to plant life lining the tracks.

Image E) Boardwalks and wooden stairs give the impression that it's unlawful to walk off the track. This can cause engagement between the track user and the surrounding landscape to become predominantly visual and have limited tactility.

Image F) Unexpected encounters can captivate the track user's attention and offer a degree of surprise. For example, the sound and movement of the grasshopper and other insects, regardless of size, manages to capture attention.

Image G) In addition to wildlife, the hat resting on the sign highlights the power of the unexpected, as it demanded more attention than the caution notice. The hat connected you with a previous user, and the circumstances around them losing their hat, and then to the person who found it and placed it on the sign.

Image H) On completing the track a very memorable part was this unboarded tussock plateau. This could be due to a number of reasons including the attention required to negotiate the uneven terrain, the destination point, the 360-degree panoramic views, and that the length of time spent there was considerably longer and more relaxed.

Figure 6:8: User-track relationship - Continued

Images (A-H) reveal the insights identified throughout this observational scoping exercise.
Part One revealed that while in motion a number of aspects demand the user's attention. This includes terrain surface, track direction, wider vistas and wildlife present. This coupled with the speed and degree of demand results in a high chance the user will miss or simply ignore the marker.

### 6.3.2 Part Two: observing the track-marker relationship

A one hundred meter section of track was selected for a set of bird shaped markers to be implemented (figure 6.9). The objective for this was to examine the relationship between the marker and the environment with particular interest in how location, placement and environmental factors affect would marker efficiency. The following images highlight the following insights noted.

Image A) Variances in lighting and shade can have an inhibiting effect on marker visibility,

Image B) Too little or too many markers may lead to increased irritation, boredom, and confusion. When implementing markers a careful balance must be met to maintain marker efficiency and the ability it has to offer a sense of trust and reassurance.

Image C) The colour of the marker may assist in drawing attention to surrounding objects of the same colour hence increasing the scope of the user's gaze. However this may be problematic if surrounding objects become mistaken for markers in cases where the colour of the marker is too similar to that of surrounding objects.

Image D) Variance in placement, location and frequency reduce predictability and demand the user to extend the scope of their gaze.

Figure 6:9: Selected track portions

A) Image of track section
B) Schematic showing the location of placed markers

Figure 6:10: Marker-Track relationship

Images A-E highlighting the key insights from the second phase of the Leithsaddle scoping exercise
Image 3) The novel shape is surprisingly playful, but is there a tendency for its appeal to wear off and become just another marker offering nothing new? In addition there needs to be a purpose for changing the shape. Given this, issues arise that relate to what will the user remember after their experience, and the possibility of narrative linking the markers from one to another.

Part Two addressed the marker and its relationship to its surroundings heightened the necessity for a balance in frequency that meets requirement of safety, route detection, and respecting user’s initiative. Too little or too many markers can create increased irritation and confusion among track users. In addition the environment is constantly changing: from atmospheric elements such as light, time of day, weather, and seasons to the interferences caused by living things such as the growth of plants, mold, and wildlife. Each of these will affect the efficacy of the marker, its visibility, and longevity. This reinforces the notion that there is no standardisation in nature and in this case the landscape that surrounds the tracks.

6.3.3 Part Three: Key considerations for marker efficacy.

The third and final part of the Leithsaddle observation study was brainstorming the key elements, limitations and considerations that contribute to the overall efficacy of wayfinding markers in natural environments (figure 6.11). This stage created a reference tool for subsequent use as a resource when designing.

The brainstorm identified the following core consideration categories:

1) Environmental considerations such as plant obstruction, weather, lighting variances, moisture, dust, degradation and wildlife interferences.

2) Placement considerations including position, frequency, surface availability, visibility, and line of sight.

3) Issues related to purpose and function, including what is the fundamental task the device must fulfill? Is it communicating a conservation message, ensuring safety, and providing opportunity for

Figure 6.11: Brainstorm of Considerations

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engagement or something different?

4) Manufacturing and design considerations include mechanics, material and appearance. Mechanical concerns include the fixing/attachment method, shape and size.

5) Material considerations contrast with the material limitations including strength, flexibility and structural integrity, as well as the longevity and toxicity of the material.

6) Appearance considerations include level of detail, and degree of recognition.

7) Risk of vandalism and theft should be considered with issues related to tamper-proofing markers requiring consideration.

Part Three highlighted a number of key considerations and choices to be encountered when designing for the environment and in this subsequent trade-offs will occur. The key here is deciding what is important and non-negotiable. For example choosing natural locally-sourced non-treated wood may be highly sustainable and environmentally ethical with low toxicity but has a shorter life span. On the other hand plastic supports both the high visibility required for wayfinding and the has low degradation levels but can cause greater damage to environment during manufacturing processes.

The Leith saddle Track observation highlighted the importance of understanding that the environment intended for wayfinding devices is unique in each location and anyone engaging in the space does so in motion. Part One revealed that while in motion a number of things are demanding the users attention from terrain surface and track direction to the wider vista and wildlife present; coupled with the speed and degree of demand there is a high chance the user will miss or simply ignore the marker.

Part Two addressed the marker and its relationship to its surrounding highlighting the necessity for a balance in frequency that meets requirement of safety, route detection, and respecting user’s initiative. Too little or too many markers can create increased irritation and confusion among track users. In addition the environment is constantly changing from atmospheric elements such as light, time of day, weather, and seasons to the interferences caused by living things such as the growth of plants, mold, and wildlife. Each of these will affect the efficacy of the marker, its visibility, and longevity. These reinforce the notion that there is no standardisation in nature and in this case the landscape surrounding the track. Part Three highlighted a number of key considerations and choices and potential trade-offs.

6.4 Wayfinding Discussion

Concluding this wayfinding scoping exercise it is clear that a diverse range of physical attributes will inherently affect the degree of wayfinding efficiency and user experience demanded of the end-users (figure 6.12). The key opportunity highlighted by this scoping exercise exists in rethinking the ‘Orange Triangle Waymarker’. This is due to the fundamental connection it plays in interacting between user and place. The intermediary role it plays is under utilised in its current utilitarian state, with opportunities for enriching engagement having not previously been taken into account.

6.4.1 Revisiting the ‘Orange Triangle Marker’

The Experience offered by the system is a sense of reassurance, guidance, and safety as these markers locate and signify to the user that they are on a designated walking track. In leading the user through the park they provide a means of ensuring park users do not lose their way. The plastic markers are nailed to trees along the designated track. Ideally at each marker the next marker is visible. The ‘Orange Triangle Markers’ are small in size, light weight and easily implemented. The bright colour and slight textured surface give the marker a high degree of visibility in a variety of lighting situations, and the triangle shape provides the means of direction. As such they are fundamentally utilitarian.

The role the landscape plays is as the foreign environment the marker is designed to aid navigation of...
through, with the marker asking only that the landscape provide a suitable surface or tree to be fixed to.

The scoping studies that were undertaken highlighted some key insights, considerations, and opportunities relevant to designing a new wayfinding scheme for New Zealand PCL. From a design perspective they present a number of questions for this research to consider. For instance, can a wayfinding system be designed that reflects and enhances the Department of Conservation’s Brand statement; ‘Protect, Enjoy, and Be Involved’. Can wayfinding be used to create an experience that unfolds through time and notion, as the user moves along the track.

Table 6.1 outlines a number of themes that have been identified, and then assesses the effect of the effect of the current ‘Orange Triangle Marker’ in terms of addressing these. As can be seen the table identifies a considerable number of potential qualities that could be incorporated for use in wayfinding systems in PCL, and it is this possibilities that this design-based research now explores.

Table 6.1: Analysing the idea in regards to the key observations

<table>
<thead>
<tr>
<th>NO</th>
<th>Some</th>
<th>YES</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Protect, enjoy, and be involved</td>
<td>•</td>
<td>•</td>
<td>The marker ensures a designated route is taken thus ultimately controls damage caused to the tree and surrounding plant life.</td>
</tr>
<tr>
<td>2) Conservation underpinning</td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Celebrating the Public Conservation Estate and regional differences</td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Look and see without explicitly saying look</td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Heightened interactivity and engagement</td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Sense of reward</td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Unfolding through time</td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Accessible information and knowledge</td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Enticing new users while remaining sympathetic to the values of seasoned users</td>
<td>•</td>
<td></td>
<td>The small size remains unobtrusive, while providing reassurance.</td>
</tr>
<tr>
<td>10) Challenges previous assumptions towards wayfinding design</td>
<td>•</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER SEVEN: IDEATION AND SELECTION
Chapter Seven: Ideation Workshop

The previous chapter identified opportunities for re-imagining and redefining what DOC’s waymarkers could offer the trackwalker. This is especially so in regards to increased experiential qualities and enriched engagement. This chapter outlines the process by which, a broad range of potential wayfinding concepts were generated. From this a spread of four representative concepts were selected, for subsequent examination, in chapters eight and nine, by applying the experientially-based frameworks developed by Shedroff and Ingold that were identified earlier.

7.1 Ideation Workshop

It was decided that the best way to broaden the scope of potential wayfinding concepts was to undertake an ideation workshop with the members of the Master of Design programme who had taken part in the Arthur’s Pass field trip. Each were asked to recollect their experience of the Arthur’s Pass National Park, and any other experience they have had of New Zealand’s public conservation lands, to aid the conceptualisation of wayfinding possibilities. The premise of this workshop was to explore and extend the potential of experience-based wayfinding solutions that this research was considering.

The workshop aim was to imagine and conceptualise wayfinding possibilities that could enrich user engagement and understanding within the national park experience. Through the earlier studies it became apparent that a key way to get people engaged was through participation and this set forth the key design challenges for the wayfinding workshop: ‘How can waymarkers be more participatory, inviting users to engage and participate further and, how can wayfinding create a more interactive experience within PCL? The definition of wayfinding and waymarkers was left open to interpretation with the only prompts for participants to consider related to how the concept would work as a system of multiple markers that unfolded through time and also how to develop a sense of narrative or cohesion. In addition it was preferable that the
conceptualised systems reflected the positive attributes of the current system such as being small, discreet, unobtrusive on the natural surroundings and maintain a level of voluntary participation.

To begin the process the group was asked to think about the APNP field trip and any other experiences they have had of PCL and brainstorm the multiple values they believed to be particularly instrumental (figure 7.1). These were then used as the basis for the ideation stage.

Figure 7.1: Ideation Group Values

Image of the brainstorm values

Participants were asked to take one of these identified values and address how wayfinding could communicate this value while contending with the key prompts. Those values identified by the group included: a world to discover, fragile ecosystems, surprising aspects of colour, discarding the city, being challenged, self-discovery, and ‘the world is big’. From this participants spent several hours drawing up a large number of possible concepts.

After the workshop, these concepts were then refined and illustrated to an equal standard (figure 7.2). This was done so as to ensure the range of ideas could be readily compared without bias caused by different styles of graphical representation. This standardisation allowed for ease of evaluation across the ideas, as it reduced the tendency to value or devalue according to the quality of illustration and depth of development. The following set of images showcase the forty-two concepts developed (figure 7.3).
Chapter Seven: Ideation Workshop

9: Curious Doorways - These markers invite the walker to physically connect with the environment.

8: Match up - Markers that show an image or feature of the surrounding environment. These markers are positioned at intervals and the walker is challenged to seek out and match the marker with the item being represented. Such a game highlights the various patterns and textures in the surroundings.

7: Prompting Frames - Markers that invite the walker to touch, listen, taste, smell and look closely, so as to encourage visitors to physically connect with the environment.

6: Scientific Instruments - Utilising basic scientific instruments to engage and educate the user i.e. sextant measuring track incline, compass finding north.

5: Voices of the Past - Utilising the stories, poems and accounts from people who have been influenced by the landscape, e.g. Wordsworth, Hilary.

4: Status Board – Status boards offer an opportunity to read other walkers’ impressions of the track.

3: Comparative Altitude - Markers that inform the visitor how far they have travelled and also compare the distance with a known fact. For example: at this point in the track the elevation covered exceeds the height of the Sky tower – measuring 328 metres.

2: Visitor Chalkboard - Markers allow visitors and staff to add field notes pointing out things of note. This creates a way for walkers to interact with one another.

1: Mark Making - Markers that encourage the walker to literally get in touch with nature. These markers are used to prompt interaction through a simple question or task that are then played out through reinterpreting natural spaces e.g. mud to chalkboard.

Figure 7:3: Body of Ideas

The following spreads (Images 1–42) showcase the body of ideas produced during the ideation workshop.

11: Point of View - Each marker has a keyhole that shows the user not only the direction they should travel but also points out things of note in the environment.

10: Tree Message - Each marker is a letter; the message requires the user to follow and memorise (or note) the letters in succession in order to spell it out.

12: No Track Zone - These markers offer users the chance to go off the beaten track (to explore bush-bashing) between two given markers. The second marker is visible from the first yet there is no defined path between the two.
13: Choreographed by Nature - Waymarkers mimic the movements of different animals, guiding the walker along the track. For example, a fantail creates zigzag-like movements.

14: Matching Parts - Line up and match the waymarkers, for instance two parts of a bird - to find the correct route, or an iconic vista.

15: Threatened Species List - Markers that use their extinction as a cue for how threatened that particular species might be. For example, those that are common are solid in color while those extinct are clear and so almost invisible.

16: Hidden Markers - In order to find the markers users are required to use their full range of senses. For example, markers are located under plant foliage, up high, behind trees, or under rocks. To increase their “find-ability” sound inducing qualities like rattles and whistles may be used.

17: Previous & Next - Markers inform the user of the track ahead compared with the track behind, this information will allow the user to make sound decisions whether to continue on or head back.

18: User Spotted & Tagged - Walkers decide what is interesting and point out areas of interest for the next walker, by placing a marker, the marker contains a native seed that will sprout from the marker.

19: Growing Marker - Markers are cultivated from native mosses and plants. These intriguing markers embrace human intervention.

20: Test Yourself - Markers that invite the visitor to test him or herself through setting up mini challenges along the way.

21: Milestones - Milestone markers appear at regular intervals, breaking the track up into sections. Knowing how far one has come and how far there is left may invite walkers to go a little further.

22: Notable Track Moments - Markers inform the walker that they are at a notable point in the track. For example, the highest point, the steepest stretch.

23: Habitat Markers - Markers of different animals are located near places and habitats you are likely to find them. For example, a wood pigeon would be located high in the trees and a kiwi near a possible burrow.

24: Energy Exerted - Markers tell the walker how much energy they have exerted to get to this point.
Chapter Seven: Ideation Workshop

31: Hopscotch - A map is laid out at the beginning of the track in a hopscotch fashion, showing the paths and alternate routes. Each decision point has the matching tile showing the walker where they are and where they could go.

32: Line-up - The markers line-up to reveal something new occurring in a few metres more. These highlight points of interest that are not always directly on track.

33: Endemic Birds - Bird shaped markers are placed throughout the track highlighting different endemic species. Each marker has its name and threatened species classification.

28: Named - Through naming paths and side-tracks a sense of security is formed which may encourage walkers to explore more. Also using descriptive names will allow walkers to make informed decisions on what tracks to take.

29: Hansel & Gretel - Like the bread crumbs in the story Hansel and Gretel, users place the markers as they walk to mark their path. This is one way of encouraging visitors to explore beyond the confines of a standard track and gives them the ability to map their own path.

30: Possible Futures - Markers educate users about future developments of the national parks, inviting conversations around these issues, for good and bad.

25: Terrain Markers - Markers that identify the terrain, slope, gradient, geology, providing the walker with the ability to learn and identify various geographical characteristics.

26: Now it Then - String photographic markers that actively compare the surrounding environment with images from history. This subsequently gives the user an acute awareness of environmental and social changes that have occurred.

27: Orientering - Visitors utilise the markers as clues to locate the next marker. Markers may include geographic features aid navigation.

19: Hansel & Gretel - Like the bread crumbs in the story Hansel and Gretel, users place the markers as they walk to mark their path. This is one way of encouraging visitors to explore beyond the confines of a standard track and gives them the ability to map their own path.

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27: Orientering - Visitors utilise the markers as clues to locate the next marker. Markers may include geographic features aid navigation.
7.2 Mapping Concepts

With such a large number of experience and concepts it was considered necessary to map the ideas in relation to one another. The ideas were plotted on matrices in order to aid the evaluation and selection process. This allowed the ideas to be compared according to common set of parameters and so gauge the breadth of ideas. The vertical axis was determined by the tension between wilderness and simulation as articulated by Beardsley’s previously examined commentary on the state of contemporary nature experiences (Beardsley 2000), Higham’s purism scale, which addresses acceptable levels of human activity (Higham, Kearsley et al. 2001), and Michael’s notion that every experience is mediated (Michael 2000). The horizontal axis displays the level of user-driven participation and involvement required to obtain the most benefit from the wayfinding intervention (figure 7.5).

7.3 Idea Selection

In choosing which ideas to progress, the body of ideas were subject to a filtering process. These filters included: 1) Which ideas had greater temporal potential (to be developed as a series of elements experienced through time); 2) which ideas accentuated the particular qualities of each quadrant; 3) which ideas held respective design richness, and 4) which ideas maintained the strength of breadth among the possibilities.

After ideas had been mapped and filtered, one idea was selected from each of the four quadrants of the matrices (figure 7.6). Each of the four concepts reflected a different style of engagement and interaction. ‘Choreographed by Nature’ uses engagement based in kinaesthetic interaction that prioritises movement and action, and doing rather than simply observing. ‘Statistic-Based Waymarkers’ is an information-based learning experience that requires the user to decode the information provided and to actively fill in the blanks. ‘Scavenger Hunt Wayfinding’ uses a game...
7.4 Four Shortlisted Ideas

The four selected ideas were then developed to an equal standard and these are shown in figures 7.7-7.14. Each idea was illustrated in a short story board and accompanied with an expanded description. The following material looks at each quadrant and chosen concept in more detail.

**Figure 7:5: Matrices of plotted ideas**

**Figure 7:6: Selected Concepts**

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The four selected ideas were then developed to an equal standard and these are shown in figures 7.7-7.14. Each idea was illustrated in a short story board and accompanied with an expanded description. The following material looks at each quadrant and chosen concept in more detail.

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**Figure 7:5: Matrices of plotted ideas**

**Figure 7:6: Selected Concepts**

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**IDEAS LIST**

1. Leaving Your Mark
2. Visitor Chalkboard
3. Comparative Altitude
4. Status Boards
5. Views of the Past
6. Secret St. Instruments
7. Potpourri Frames
8. Torus/Range Match up
9. Coastal Environments
10. Messages in the Trees
11. Ports/View Markers
12. The Track Master Zero
13. Chronographied by Nature
14. Marketing Part
15. Threatened species List
16. Hidden Markers
17. Previous to Now
18. User Sparks Re-Tagged
19. Screening Masters
20. Test Yourself
21. Whitewares
22. Notable Track Features
23. Field Marking
24. Nature’s Own
25. Terrain Markers
26. Look into the Past
27. Orienteering
28. Named
29. Historical Inherit
30. Possible Futures
31. Hopscotch Track Map
32. Lineup: Directional
33. Birds of All Kinds
34. Noughts & Crosses
35. Footprints
36. Field Guide—Reference
37. Alternate Route Markers
38. Storytelling
39. Scavenger Hunt
40. Time to Discover
41. Natures Own
42. Twisted Orientation
43. Possible Futures
44. Notable Track Features
45. Field Marking
46. Nature’s Own

**CONTENT CATEGORY**

- Conservation
- Geographic & Navigation
- Wildlife/Plants/History
- Social/Community
- Discovery/Wonder
- Personal
7.4.1 Scavenger Hunt Wayfinding

This scheme invites the walker to participate in a scavenger hunt. At the beginning of the track, the walker will collect a game board. The board consists of a set of clues, images and hints, challenging the walker to find the associated habitats, plants, wildlife and specific scenes. The walker is encouraged to seek out the waymarkers and things of interest within the environment, as represented by the scavenger hunt board. As a consequence the walker will gain new information about the park and its contents. For example:

Clue: WHO AM I? I can not fly, but I have powerful legs that help me run fast when I need to, the trunks of fallen trees and burrows are the place I like to be, I am not afraid of the dark and sleep all day.

Answer: Kiwi, the marker would be found near the trunk of a fallen tree.

The ‘Scavenger Hunt Wayfinding’, offers the walker a way to look and discover the wonders of the natural environment.

Figure 7.7: Scavenger Hunt Wayfinding story board

Figure 7.8: Scavenger Hunt Wayfinding
Quadrant Location
High intensity/involvement with strong simulation
7.4.2 Storytelling Wayfinding

This scheme uses a series of waymarkers to tell a story that uses the natural environment as a backdrop. For example, a story is told of predation and the effects it has on the endemic wildlife and plants. The narrative begins with the track being highly populated by endemic wildlife markers, but as the user journeys along the track they begin to see predator shape markers appearing and subsequently the reduction of endemic wildlife markers. This playing out over time allows the story to strengthen the core conservation message. For it communicates the core message in a new and unexpected way.

Figure 7:10: Storytelling Wayfinding Quadrant

Location

Figure 7:10: Storytelling Wayfinding Quadrant Location

Low intensity/involvement with strong simulation
7.4.3 Statistic-based Wayfinding

The basis of this wayfinding scheme is to educate walkers on some alarming statistics related to the natural environment. The information is being delivered to the user in a relevant setting and communicates and strengthens the conservation message in an innovative way.

One example might be to communicate statistics surrounding the decreasing population of endemic species. Waymarkers are shaped and located according to the relative habitats of the wildlife member being represented. The purpose of this variation in placement is to cause the viewer to seek out the marker, heightening the engagement level. Waymarker colouring is reflective of the statistic being represented. For example, the more transparent the waymarker the lower the population of that species - a fantail has a seemingly healthy population, so the marker will have a fairly opaque colouring, whereas the moa is extinct, and would therefore be represented transparently.

Figure 7:11: Statistic-based Wayfinding storyboard

Figure 7:12: Statistic-based Wayfinding

Quadrant Location
Low intensity/Involvement with Strong Wilderness
7.4.4 Choreographed by Nature Wayfinding

‘Choreographed by Nature’ is a wayfinding system that uses a series of waymarkers that are defined, and inspired, by the movements, and patterns, of a member of the local wildlife. The waymarkers guide the walker in a way appropriate to the choreographer. For example as the fantail flits and hops about from place to place, winding in and around the track, so too will the walker. The markers invite the user to undertake a new perspective and encourage them to actively explore the surrounding environment. As the user explores the track according to the choreographer, knowledge of that choreography is gained, as each waymarker illustrates the angle direction and type of movement taken by the member of local wildlife. It asks users to move beyond the confines of the beaten track to explore and interact with the surrounding environment. Also, given that markers are also placed in various locations along and around the track (both high and low and not fixed to predictable patterns) a sense of discovery is encouraged.

Figure 7:14: Choreographed by Nature
Wayfinding Quadrant Location
High intensity/involvement with Strong Wilderness
7.5 Chapter Summary

The workshop confirmed there are many ways wayfinding and waymarkers can focus the walker on experiential and participatory interactions with PCL far beyond the mechanical, and utilitarian, constraints of the Orange Triangle Marker. A wide scope of ideas where realised that provide a richness and breadth of solutions. From this, the question becomes how the potential of the four selected ideas could be more fully realised and resolved? In the following two chapters first Shedroff’s and then Ingold’s earlier discussed frameworks are used as potential tools with which to extend these concepts.
CHAPTER EIGHT: SHEDROFF AND EXPERIENCE DESIGN
Chapter Eight: Shedroff and Experience Design

8.0 SHEDROFF AND EXPERIENCE DESIGN

It is in the complexity of nature experiences that this research now applies the conceptual models of Shedroff and Ingold and is the focus of the following two chapters. This chapter examines the application, use and productivity of Shedroff’s experience design model as a tool for developing richer experiential design solutions, and is applied to the four wayfinding concepts. In the following chapter Ingold’s model is then applied.

As introduced in Chapter Three Shedroff’s experience design model focuses on the designing of experiences, with the premise, that experiences are knowable, reproducible and, therefore, designable. Shedroff’s work examines various qualities and characteristics of experience. From this, he argues that experiences have six core ‘dimensions’ – significance, breadth, intensity, duration, triggers, and interaction (figure 8.1). Each ‘dimension’ includes a number of ‘elements’ (see figure 8.1 for the full list). Shedroff argues that in addressing these elements, the designer can define the boundaries of the designed experience and design for any presented issues in order to create robust experiences.

8.1 Experience Design Model Process

The process of applying Shedroff’s model began by large-scale worksheet. The enlarged model is used to input annotations and idea iterations (figure 8.2). In filling out this worksheet, each element of the six dimensions is addressed; as prescribed by the numerical order laid out by Shedroff. This begins with the element ‘meaning’ of the ‘significance’ dimension and then working anti-clockwise around the worksheet to end with the ‘interaction’ dimension.

Figure 8.3 (overleaf) shows the completed worksheets. In the lower left-hand corner, the initial concept is displayed (as detailed at the end of chapter seven). As each element is addressed, a response is written in the appropriate space on the worksheet. For example, function, the fifth element on the ‘significance’ dimension (figure 8.4) prompts the user to consider the fundamental

Figure 8:1: Experience design model (opposite)

EXPERIENCE DESIGN DIMENSIONS

Figure 8:2: Large scale experience design model worksheet

8.0 SHEDROFF AND EXPERIENCE DESIGN

Figure 8:3: Completed worksheets

8.0 SHEDROFF AND EXPERIENCE DESIGN

Figure 8:4: Completed worksheets

8.0 SHEDROFF AND EXPERIENCE DESIGN

Figure 8:5: Completed worksheets
Chapter Eight: Shedroff and Experience Design

Figure 8.3: Completed Experience design worksheets
a) ‘Scavenger Hunt Wayfinding’
   b) ‘Storytelling Wayfinding’
   c) ‘Statistic-based Wayfinding’
   d) ‘Choreographed by Nature Wayfinding’

Likewise, the third element of the ‘duration dimension’, ‘conclusion’ prompts the user to consider how the experience concludes, and if the experience is adequately resolved so as to leave the participant satisfied. And also whether the user recognises the experience’s end, and whether there is potential to extend or continue the experience. This is particularly pertinent in the case of the New Zealand nature experiences, as in terms of this research, it is crucial to leave participants with a positive impression and a personal desire to seek out similar experiences. As noted in Chapter Two, Sharpe and Ewert argue that positive engagement will lead to positive association with the natural environment and will subsequently forge stronger place attachment potential (Sharpe, 2000).

Figure 8.4: Function Element from the ‘Scavenger Hunt Wayfinding’ worksheet

function of the experience. Specifically, what does it aim to do, and what are some key qualities required to achieve this. In this case, the primary function of the developed wayfinding system is to assist engagement within the natural environment, through providing the end-user with an activity that encourages an involvement in the immediate surroundings.
In terms of this dissertation, four applications of Shedroff’s approach to experience design was undertaken, one for each of the four shortlisted wayfinding concepts - “Choreographed by nature”, “Scavenger Hunt”, “Statisit based”, and “Storytelling”. On completion of the development phase, it was identified that all four concepts had been similarly progressed and any differences in the results being indistinct. Hence in terms of this dissertation only one of the four workshoetk is discussed directly, while the transcripts of the other three are included in the appendix (Appendix 1). The first discussion focuses on one of the four applications and the latter is a more general discussion regarding the productivity of this approach and considers all four applications.

8.2 ‘Scavenger Hunt Wayfinding’ and Experience Design Development

The ‘Scavenger Hunt Wayfinding’ concept prioritises an engagement that encourages learning through game-based activity. The initial concept (as seen in figure 7.8) utilises clues to prompt the user to rely on their immediate surroundings to find the answers. In participating, the end-user not only learns about the natural environment but also contextualises the knowledge gained with the specific environment.

For ease of viewing the completed worksheet (figure 8.3) has been transcribed and is displayed below in table 8.1. This edited transcript showcases the design enhancements and comments made during the design process as prompted by Shedroff’s experience design elements.

Table 8.1: Worksheet Transcript of ‘Scavenger Hunt Wayfinding’

As applied to Shedroff’s Experience Design Model.

| NAME | Scavenger Hunt, common understanding of a scavenger hunt as a game with hidden items they can find or successfully identify. |
| PRICE | BREADTH |
| Promotion is not necessary as the intervention will include instructions and distribution of clue/game board. This is may be located at the track head or visitor centre. |
| PRICE | INTENSITY |
| Satisfaction of the base idea. |
| PRICE | DURATION |
| The experience ends when the user finds all of the correct markers. |
| PRICE | SIGNIFICANCE |
| The experience begins with an instructions panel that includes instructions and distribution of clue/game board. This is may be located at the track head or visitor centre. |
| PRICE | SIGNIFICANCE |
| Does the marker include directions/tips on how to find the matching marker, 4) from the marker the user can move to the next clue. |
| PRICE | SIGNIFICANCE |
| Does one clue lead to the next and so on and so on - in doing so the user is encouraged to identify the real thing being modelled, or move on to the next clue. |
| PRICE | SIGNIFICANCE |
| One clue 1) reads the clues, 2) works to solve and 3) finds the marker the user finds reassurance of being on the right track. |
| PRICE | SIGNIFICANCE |
| The user 1) reads the clues, 2) works to solve and 3) finds the marker the user finds reassurance of being on the right track. |
| PRICE | SIGNIFICANCE |
| The scavenger hunt facilitates an increasing sense of community as members of a group work together to solve the clues, and encourages game play and competition. |
| PRICE | SIGNIFICANCE |
| Promotion is not necessary as the intervention will include instructions and distribution of clue/game board. This is may be located at the track head or visitor centre. |
| PRICE | SIGNIFICANCE |
| The experience begins with an instructions panel that includes instructions and distribution of clue/game board. This is may be located at the track head or visitor centre. |

DURATION

• A set of clues and corresponding markers. Through answering the clues the marker is uncovered.

PROMOTION

• Kiwi lifestyle: holidays, batch, getting out doors, off the beaten track.

BRAND

• Promotion is not necessary as the intervention will include instructions and distribution of clue/game board. This is may be located at the track head or visitor centre. |

LEVEL OF DIFFICULTY

• A desire to learn.

VALUES and IDENTITY

• Wonder: the concept encourages the user to seek out and find the clues provided, in doing so the user is introduced to things, creatures, nature, that they may have previously overlooked.

FUNCTION

• The primary function is to assist the engagement of people and the natural environment, through providing an activity where they are invited to see how many of the items they can find or successfully identify.

NAME

• Scavenger Hunt, common understanding of a scavenger hunt as a game with hidden items they can find or successfully identify. |

INITIATION

• Promotion is not necessary as the intervention will include instructions and distribution of clue/game board. This is may be located at the track head or visitor centre. |

ENGAGEMENT

• Level of difficulty, or find-ability.

VALUES and IDENTITY

• A desire to learn.

FUNCTION

• The primary function is to assist the engagement of people and the natural environment, through providing an activity where they are invited to see how many of the items they can find or successfully identify.

NAME

• Scavenger Hunt, common understanding of a scavenger hunt as a game with hidden items they can find or successfully identify. |

INITIATION

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ENGAGEMENT

• Level of difficulty, or find-ability.

VALUES and IDENTITY

• A desire to learn.

FUNCTION

• The primary function is to assist the engagement of people and the natural environment, through providing an activity where they are invited to see how many of the items they can find or successfully identify.

NAME

• Scavenger Hunt, common understanding of a scavenger hunt as a game with hidden items they can find or successfully identify. |

INITIATION

• Promotion is not necessary as the intervention will include instructions and distribution of clue/game board. This is may be located at the track head or visitor centre. |

ENGAGEMENT

• Level of difficulty, or find-ability.

VALUES and IDENTITY

• A desire to learn.

FUNCTION

• The primary function is to assist the engagement of people and the natural environment, through providing an activity where they are invited to see how many of the items they can find or successfully identify. |
**Chapter Eight: Shedroff and Experience Design**

- Incorporate the use of sound in the clues, e.g. to find the real thing.
- Encourage people to physically interact with the local environment.

**SENSORY**

- Tactile: how did you find the clue?
- Visual: how did you find the clue?
- Auditory: did you hear the clue?
- Smell: did you smell the clue?
- Taste: did you taste the clue?
- Touch: did you feel the clue?

**TRIGGERS**

- Sound triggers
- Visual triggers
- Tactile triggers
- Smell triggers
- Taste triggers
- Touch triggers

**STRATEGIES**

- Use sound to trigger visual and other sensory experiences.
- Incorporate visual and auditory elements to enhance the experience.
- Use smell to create a sense of place.
- Use taste to create a connection to the local environment.

**CONCEPTS**

- Family engagement.
- Competitive element.
- Factually Based: Life / habitat / Plant life /ecology.
- Recognition properties important.
- Level of visibility can relate to ease of find-ability.

**CREATIVITY**

- Select 10 clues from a body of 40.
- Create your own - clue sheets.
- Flexibility to stop and start as the user sees fit.
- User controls the speed at which they experience the track.

**CONTROL**

- Checking for answers at the end, how many were correct.
- Success chart... Average, good great, top.

**FEEDBACK**

- Leader boards, top hunters.
- Offer the facility to check their answers and store their scores.

**EXTENSIONS**

- At the tracks end or on the returning route.

**FUNCTION**

- Each marker provides information on how to spot the represented species in the natural habitat.

**INFORMATION**

- Core message:
- Discover the wonder: many things to uncover and to be surprised by.
- Level of visibility can relate to ease of find-ability.
- Colour and material will aid in the wayfinding capability.
- Placement: high, low right, left.
- Encourage the user to look around more often, even if it is to simply to find the next marker.

**ENGAGEMENT**

- Make markers hidden, easy, hard, and in between. The markers are increasingly integrated and in context.
- Knowledge gained about the local environment and the inhabitants that dwell there.
- The experience is exciting to those in the group, bringing along with it elements of prior experience. Something to point out as an invitation to share.
- The invitation to understand that the forest is a home to many other living creatures, each with a unique story worth telling. The simple act of remembering and in acts of appreciation.

**ADAPTIVITY**

- Each area or track will have relevant and unique Active markers.
- An invitation to share.

**COMMUNICATION**

- Core message:
- Knowledge gained about the local environment and the inhabitants that dwell there.
- Something to pass on an invitation to share.

**RECOGNITION**

- Use QR codes or markers, though photo representations.

**ENGAGEMENT**

- Markers that conceal information about the species being represented.

**INTERACTION**

- User controlled task that can be mixed and matched or divided between group members.

**INTEGRATION**

- Online creation server...
- Users can share their answers and store their scores.

**VALUES**

- Flexibility to stop and start as the user sees fit.
- User controls the speed at which they experience the track.

**andles**

- Facilitate the experience to engage more with the theme.
- Encourage movement along the path that the user is to play the location of each answer marker.

**DESIGN**

- Bright location based clue that sets the user off on the next clue, the ground location, then more specific location.
To summarise the table, the following key enhancements were produced through Shedroff’s experience design approach. These are categorised according to the associated dimension.

- The ‘Significance’ dimension focused on heightening an awareness of these activities ability to facilitate the experience. This included the forming of a conversation between the walker and the surrounding natural environment. Enhancing this, the ‘answer marker’ provides an additional opportunity to provide information regarding the represented figure and tips or hints on how to seek out the living version of that marker.

- The ‘Breadth’ dimension enhancements focused on the integrating of digital technology, including online forums to be accessed before or after the trip and the use of smart phone applications that allow the activity to adapted to the end-users progress and skill level. With using digital technology, the walker has the means to access extended information and upload images of their activities.

- ‘Intensity’ based enhancements prompted the potential to tap into varying skill levels, with this comes the ability to keep all members of a group entertained. Also, groups can be simultaneously interacting with the environment and one another.

- The ‘Duration’ based enhancements looked at the mechanics of the designed experience. In addition to the clue sheets, the option to include clues onto the markers was developed. This allowing non-participating track users to take part at any stage.

- ‘Trigger’ based enhancements focused on inviting users to employ their senses to seek out the answers. This developed a more tactile interaction; that encourages the fostering of a deeper understanding.

- The ‘Interaction’ dimension pursued opportunities to engage the user further. This included developing the opportunity, to allow users to customise their own scavenger hunt sheets online before their visit. In addition, various ways of providing the user with feedback were considered including the inclusion of unique reference numbers to provide a way for the user to measuring their success.

In summary, the core enhancements focused on the mechanical aspects of the experience, improving clarity, and enhancing the scope of the experience. Shedroff’s elements were particularly valuable in developing the structure the game-based concept would take, and also in developing a broad range of clue set possibilities. This included, for example, whether the structure or form a clue set includes a gameboard or simply uses the markers to guide the user from one clue to the next, or whether the clues could seek out natural land formations or whether encourage users to employ their senses to identify reference points.

However, the model was less beneficial in extending attributes related to the specific environmental characteristics. The model prioritising the components of the designed experience over the existing qualities of the environment to which the concept would later be implemented.  

8.3 Enhancement Summaries.

The above considers the application of Shedroff’s Experience Design Model as applied to the ‘Scavenger Hunt Wayfinding’ scheme. What follows is a short review of the key enhancements Shedroff’s Model generated for the other three concepts. These also include a brief discussion of limitations of this approach towards the development of these three wayfinding concepts.

8.3.1 ‘Storytelling Wayfinding’ enhancements.

In short, the ‘Storytelling Wayfinding’ concept utilises wayfinding markers to unfold a story in the natural environment. This scheme employs the series of markers a tool to tell the story with the example used is the story of predation in New Zealand (see pages 144-145 for more detail).
8.3.2 ‘Statistic-based Wayfinding’ key enhancements.

The ‘Statistic-based Wayfinding’ concept integrates statistic-based information into the waymarker, as a means of maximising the information potential while maintaining an unobtrusive manner. The core success of this idea lies in the ability to communicate information in a direct and accessible way.

- The ‘Significance’ dimension outlined the core driving force underlying this idea; it focuses primarily on the message of conservation and enlightenment and prioritised the need to communicate the conservation message and enlighten the audience through developing a new sense of understanding of place, environment and context.

- The ‘Breadth’ dimension developed the narrative, regarding predation in New Zealand, c1700-2050. It teased out a fuller story that for the duration of the track, the end-user is led through the history of predation in New Zealand. The story concludes at the current date and state of predation. This concept provides the opportunity to educate users on what the natural environment has faced, and why it is essential for people to partner with DOC and associated organisations.

- The ‘Integrity’ dimension prompted the necessity of actively including the natural surrounding. The story unfolds as the user ventures along the track. It also prompted an opportunity to incorporate digital technologies to reduce the level of fixed human intervention. Including augmented reality and QR codes. This offers the ability to provide further information, audio narrative and language translations while maintaining an unobtrusive structure.

- The ‘Duration’ dimension increased awareness of how over the space of the trail the idea could be intensified. For example, through educating users on the conservation status of local wildlife, urgency of support needed for wildlife conservation could be intensified. A code could be employed to communicate the various population levels of the different species. Those with a healthy population are relatively easy to find and are found frequently in comparison to those critically endangered, and likewise more difficult to locate. In addition, this dimension prompted the consideration of future or continued engagement, for this key development focused on providing facilities for users to engage in resources and additional activities, including information on participating in local recovery efforts.

- The ‘Triggers’ dimension intensified the drama through concepts of good and bad, and life and death. It also seeks to bring in facts and real events that have affected the environment, with an emphasis on the local environment. This is done through accompanying the markers with existing media, newspapers articles, and advertising. It concludes with current articles of the current state of the natural environment and a message of hope.

- The enhancements prompted by the ‘interaction’ dimension focused on education and the potential of continuing, the experience by using the experience as a launch platform for other pro-conservation initiatives, including inviting the end-user to take part in recovery efforts and conservation initiatives.
message could be intensified, including the use of strategic placement as described above, and colour coding and opacity changes that then allowed for the representation of extinct species. The concept facilitates a conversation between the user, the environment and current trends regarding the health of the local environment by linking statistics to place and intensifying the silence of the forest.

- The interaction dimension focused on enhancing the conversation between the user, environment and message. This included using varying levels of difficulty to reduce predictability and increase a sense of reward.

8.3.3 'Choreographed by Nature' wayfinding key enhancements.

The ‘Choreographed by Nature Wayfinding’ concept prioritises movement and narrative as generated by local wildlife. The core premise is to lead the users into the natural environment through an alternative perspective (see pages 146 to 149).

- The significance dimension elicited characteristics of wonder, beauty and freedom, where the core function of the concept was to break down constraints and habits imposed by well-defined paths. The concept’s success is in connecting users with the greater world and in drawing them away from the beaten track. The marker itself is designed to imitate the movements of local wildlife, creating a kinaesthetic narrative through the forest.

- ‘Breadth’ dimension drew out possibilities to consider multiple species and also complementing existing national park wayfinding and amenities (such as interpretation, seating, shelters) in order to create a bridge between human intervention and the natural environment.

- ‘Intensity’ dimension sought opportunities to further engagement potential, including leading the user through, over, under and around the natural environment. This increased the tactility, freedom of movement and sense of discover. It also considered the use of technology to expand the narrative.

- The ‘Duration’ dimension assisted in the development of an additional layer of narrative that brought in representations of the represented species daily activity. In addition, this concept lends itself to creating a cohesive experience that begins at the tracks start and ends for the park user as the track finishes.

- The ‘Triggers’ dimension developed a number of ways to enhance the connectivity and extension of knowledge offered. An example is in the placing of markers according to the movements and habitats of the represented species. For example, a fantail moves in and out of the trail as it looks for freshly disturbed insects, or a kiwi scurries across the track undetected from place to place.

- The ‘Interaction’ dimension prompted consideration of how to maintain flexibility of participation. The unobtrusive manner of the markers and integration with existing schemes enhances a sense of voluntary participation and allows users to opt in and out at will. The value of such wayfinding scheme lies in providing new ways of engaging.

In reviewing these three designs and their key enhancements it was noted that Shedroff’s model allowed a deeper narrative to be developed. This included prompting additional opportunities to convey information regarding the wildlife living in the environment. It also allowed for the fleshing out of the marker design and how this could influence and facilitate both a tactile and information-based interaction. For example, in all three of these latter concepts, the style of representation provides additional information and species recognition.

However, like the ‘Scavenger Hunt Wayfinding’, there remain gaps in the development of experience-based qualities that are drawn out of a particular environment and location. In Shedroff’s model the environmental context is considered content pre-given and in this regard while his model extends the potential interactions it is less able to draw out a richer level of subject matter. Hence in terms of the PCL context Shedroff’s model helps bring out greater interaction with the wayfinding, but not so much with the specifics of the environment in which it is sited. Likewise, the ‘statistic-based concept’ requires a set of information and statistics. In
addition, it was also noted that in attempting to address the numerous triggers, there was a possibility that the concepts would become over-complicated and with it, as there is a demand for the user's attention, a tendency to draw the user away from the environment being explored.

8.4 Model Use and Productivity

The following section examines more closely Shedroff's model and the value each of its elements brought to the development process. As each element was addressed, a record of the value and level of contribution to the development process was noted (figure 8.6). Each element was weighted according to its overall effectiveness; a green tone was used to demonstrate those elements that had strong value within the development process, while a blue tone was used for those elements that while producing insights regarding the experience were not necessarily instrumental in generating ideas. A black tone was used to demonstrate the elements that produced lower levels of insight while a red tone was used to demonstrate those that were considered to provide little or no input. In weighting each of the elements, a comparative examination across the four applications was enabled. From this the following table (Table 8.2) developed to allow a closer comparison of the overall value the different dimensions and elements brought on the development process.

Figure 8.6: Productivity Observation of Shedroff's Experience Design

A) 'Scavenger Hunt Wayfinding'
B) 'Storytelling Wayfinding'
C) Statistics-based Wayfinding'
D) 'Choreographed by Nature Wayfinding'
Table 8.2: Productivity weighting of Shedroff’s Experience Design

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Average</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triggers</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Duration</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Intensity</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Specifically these elements were ‘Initiation’, ‘Sight’, ‘Engagement’, and ‘Touch’. However, there were also a number of elements that consistently offered little to the development process and design outcome. These were ‘Price’, ‘Promotion’, ‘Reflex’, ‘Habit’ and ‘Taste’. Potentially this is because elements such as ‘Price’ and ‘Promotion’ may simply be more suited to commercial experiences rather than one that has no charge associated with it. Elements such as ‘Taste’ have a number of boundaries and liabilities attached, and as such it is inappropriate for all experience to incorporate these.

It is also significant to note that a number of the elements listed as having the most value are from a dimension that also has elements listed as having the least value, this suggests:

1) The ‘Triggers’ dimension is more valuable as a series of prompts to be considered as a whole, focusing on how the experience will trigger the desired response, actions and understanding in the audience, rather than trying to design an experience that includes qualities of all seven triggers.

2) The ‘Duration’ dimension while being valuable as individual elements is more so when considered as a whole. For the experience occurs in time, and the user moves through the ‘elements’ in order (‘Initiation’, ‘Immersion’ and ‘Conclusion’), each component is not separate from one another but rather various stages of the same experience.

3) Likewise, the elements of the ‘Intensity’ dimension can not easily be separated from one another, for, the audience can not be fully engaged and acting on reflex in the exact same moment, in addition each audience member will react and engage to varying levels and ways. It is more valuable to consider the ‘Intensity’ dimension as a whole, and focusing on one area of the spectrum to enhance that desired intensity.

In summary this suggests, while the elements are individually valuable, there is greater value in considering the dimensions (being a set of elements) as a whole and elements are used to simply prompt the inquiry, this allowing for openness allowing elements to contribute more or less
strongly according to the experience being designed.

In addition to the element weighting, a commentary of initial responses was recorded during the process of applying the model and includes aspects of the model strengths, weaknesses, implications, and initial recommendations of how to resolve some of these observed issues.

Some key concerns identified during the process include:

- In the process of addressing each of the 31 different elements to the idea, there was a strong tendency for the concept to become fragmented. This, in turn, required an additional process to filter and select the key enhancements.
- The prescribed and somewhat complex nature of Shedroff’s model of this approach inhibited more organic design processes and as such had a tendency to restrict creative freedom.
- The model’s productivity appears closely related to the designer’s ability to translate and consider the various elements. In this regard, it was noted that those elements of higher value – such as sight, initiation, and engagement have a close fit to commonplace design tools.
- Shedroff’s model forced a more even and incremental spread of attention and worked against a more selective and focused design process. This was considered to be detrimental to identifying high impact design ‘breakthroughs’.

8.5 Chapter Discussion

Nathan Shedroff’s experience design model prompted the Model user to address a number of experiential qualities, and it was noted the model was highly productive in validating and evaluating specific concepts. However, the highly prescribed process presents a number of issues, which include:

1) the process is time consuming and overly mechanistic in nature.
2) It fragments the solution rather than bringing it together, and it is an iterative development rather than being transformative.
3) The process inherently removes the designer from an organic development process to one that was quite rigid, inhibiting creative freedom.
4) It was also noted that the model overly focused the designer on the designed intervention at the expense of an examination of the context or location it was being designed for. That said, the model breaks the complex task into smaller components and, therefore, has potential to aid non-designers through a number of design decisions to be made during the design process. From this, it suggests that the level of productivity of Shedroff’s model will vary in accordance to the demands of the experience being designed or evaluated and the level of knowledge and capacity of the designer the model.

It must also be noted that Shedroff does not argue for this model being used in its entirety, and certainly this research confirms there is less value in it being used in this way. Rather, its value may be increased in a selective application of elements and dimensions. In summary, key questions to arise included: how might the produced iterations and dialogue be consolidated into a single solution, and how can the location of experience, in this case the National Park landscape, be prioritised as a core component of the experience? It is in the hope of addressing the latter question that Ingold’s model of the landscape is now employed.
CHAPTER NINE: INGOLD AND LANDSCAPE TEMPORALITY
This chapter takes Tim Ingold's position of landscape and Landscape Temporality, as modelled in Chapter Three, and applies it as a tool to assist the design process. This application includes a student workshop in Arthur’s Pass, an analysis of the collected material from that workshop, and the designing in response to the insights observed.

As introduced by the literature and the scoping studies, Ingold's conceptualisation of landscape understands an environment as being able to directly shape experience, and that this shaping unfolds over time (see pages 43-46). In this, landscape plays a significant role in both the encountered experience and, as a result of this, in the design process. It is this relationship between landscape and design that this chapter examines. Ingold's work prioritises the notion that a landscape is constantly changing, as such, an individual is both part of and also plays a significant role in that landscape, and that this relationship is founded on direct experience. It is in observing the landscape that designers are able to acknowledge landscape affordances and are able to design accordingly.

9.1 Landscape Temporality Model Process

A schematic of Ingold's position (figure 9.1 - opposite) was developed in Chapter Three. The purpose of this model was to generate a visualisation of landscape's temporality. It teases the landscape apart into a series of qualities and processes: from the activities of dwelling to the life processes of the world. In capturing these aspects, the user is provided an immersive approach for recording the landscape, the 'taskscape' and with it the embedded qualities of temporality and interconnectedness between a person and the landscape. It is the application of this model as a tool to assist the design process that is the focus of this chapter, as a means to record and document the landscape, then from this using the captured data and insights to inform a series of questions that can act as a developed design brief.

Figure 9.1: Model of Ingold’s theory of ‘The Temporality of the landscape’
It was decided to develop the previously developed schematic into a worksheet that would prompt users to document key values related to landscape and landscape temporality (figure 9.2). In translating this model the key adjustments include:

• Prompting the user orientate their surroundings to themselves, thus positioning the user in the landscape and enabling them to map their surroundings in regards to their position, is the object in front, behind, to the left or to the right. More importantly this taps into Ingold’s position regarding the user being an inseparable component of that landscape.

• The degree of interactivity was omitted and in its place a key for annotating entries that the user interacted with.

• The worksheet user is prompted to record what they see, hear and feel. The mapping is done twice allowing for observation of change and temporality.

The worksheet is divided into two phases. The first phase asks the user to map their surroundings in accordance to Ingold’s position - recording what they see, hear and feel. The mapping phase has three stages:

1) mapping,
2) answering questions regarding themselves and previous experiences in nature,
3) then being asked to readdress their surroundings, responding to what has changed, moved or is no longer present.

The second phase, of the landscape temporality worksheet, was a key reflective component where users were asked to comment on any insights gained during the mapping process and also how these insights might aid designing for natural environments and especially design more enriching nature experiences.
9.2 Landscape Temporality Workshop

Ten 300-level design students were enlisted as participants during a fieldtrip to APNP. These were divided into two groups. Each group was assigned a different location. Group one was located along the first ten minutes of the Coral Track (figure 9.3 - location 1), between 9.40 am and 10.20 am on day one. Group two was located along the last ten minutes of the Bridal Veil Track (figure 9.3 - location 2), between 9.00 am and 9.40 am on day two. These two tracks were chosen for their proximity to one another and their similarity in ecological and terrain makeup (figure 9.4). It is also necessary to note that a key difference between the groups was that the second group had previously visited the Bridal Veil Track - independent of this workshop.
On arrival, each group was briefed on the task, the worksheet and the core principles of landscape temporality (the students had been previously introduced to Ingold and his landscape perspectives). Each participant was then instructed to choose a spot along the track and work through the worksheet (figure 9.5).

Figure 9.5: Student mapping surroundings
Coral Track - Participant 1:3

Figure 9.6 (overleaf) shows both pages of one of the completed worksheets. As outlined above, the worksheet is divided into two phases: mapping and insights. The mapping phase was allotted twenty-five minutes - allowing ten minutes for the initial observation and mapping, five minutes for the observer focused questions, also named as ‘the intermission’, and ten minutes for readdressing the surroundings. The insights phase was allotted ten minutes for the user to consider their maps and record any insights they observed.

Figure 9.6: Completed ‘Landscape Temporality’ worksheet - participant 1:3 Coral Track
A) Phase One: mapping (opposite)
B) Phase Two: insights (overleaf)
Looking at the completed worksheet in figure 9.6 a picture of the landscape is formed, though in words, still forms a sense of what the environment is like. Participant 1.3’s recordings suggest they are standing in a location where they can see the mountains on either side with the recording of sky separating these. This suggests the location of the main valley remains understood and can be used to orientate the user even when the user is the depths of the bush. The recording of path on the left and right of the participant allows the position of the participant to be deciphered: in this case they were standing looking out into the forest rather than along the track. In the first observation, the participant encountered a tramper, whose walking sticks were heard before they were seen. After the first observation had concluded the sun appeared. This is seen in the new entries that record sunlight patches, sunlight on trees, which in turn illuminated the undergrowth and a spiderweb that previously had been unnoticed. The sun also brought out the birds.

For the purposes of this research the core purpose of ‘the intermission’ is to interrupt the user in their observation of the landscape, allowing for a refreshed perspective when entering the third stage of mapping. It also provides information about each participant, including connection to place, previous nature experience, perception of acceptable levels of human activity and perceived ability or skill level. Analysing this information, however, is not a key research area in this dissertation. Given the scope of this study and its focus on eliciting design-based insights it was decided that this information, while it was collected, was not to be incorporated in this research.

Page two of the completed worksheet shown in figure 9.6 reveals insights and observations the participant made during the mapping process. When examining their own recordings, participant 1.3, noted: “there is not a lot of birds in the forest”; “the undergrowth has a lot of moss”; the “general bush is fairly thick”; “only the path provides user wayfinding”; and “the sun coming out creates loads of spots of light on the forest floor, changing the dynamic of the space hugely.” Following this, when asked how these observations may assist in designing for the environment the participant suggests taking advantage of the natural surroundings including the sun when it
appears, so the natural experience of this environment is embraced and also employ natural sound barriers to draw the user away from nearby traffic sounds.

It is interesting to note that when prompted to examine their own insights one participant noted potentiality of personal bias, writing “the large proportion of human sounds, sights and physical effects I recorded, either points to my bias or their high frequencies. This highlights the potentiality that, as humans, participants are more inclined to observe elements that are familiar or relative to human activity or, as Ingold would describe, dwelling.

9.3 Workshop Data Analysis

In order to decipher the worksheets to identify the top 3 most common recorded entries, the data was transcribed into a table that noted each recording made each participant (table 9.1, 9.2, 9.3). Each entry was recorded according to relative categories, and from these a shortlist was selected on the basis of the highest number of participants to record that entry. For example, all ten participants recorded hearing water, whereas only one recorded hearing stones underfoot.
Overall the most common recordings (Table 9.4) for sight are trees, other people, birds and the trail, with slight variation between the groups. Sound recordings are consistent across both groups with water, vehicles, and birds as the top recordings. The feelings category has a wider pool of entries, which vary between both groups and individuals, the most common being related to feeling cold, the breeze or wind, and a sense of calm and peace.

<table>
<thead>
<tr>
<th>SIGHT</th>
<th>GROUP ONE</th>
<th>GROUP TWO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trees</td>
<td>Track</td>
<td>Trees</td>
</tr>
<tr>
<td>Other People</td>
<td>Other People</td>
<td></td>
</tr>
<tr>
<td>Birds</td>
<td>Trees</td>
<td>Birds</td>
</tr>
<tr>
<td>Water</td>
<td>Water</td>
<td></td>
</tr>
<tr>
<td>Vehicles</td>
<td>Vehicles</td>
<td></td>
</tr>
<tr>
<td>Birds</td>
<td>Birds</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEEL</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold</td>
<td>Cold</td>
</tr>
<tr>
<td>Wind/Breeze</td>
<td>Breeze/Calm/Relaxed/Tired</td>
</tr>
</tbody>
</table>

Table 9:4: Top recordings

The feeling category is the most personal and the words used to describe what an individual feels vary considerably. This makes identifying the top three difficult. This also suggests that there is a wide set of emotional and physical feelings being experienced. As such, this indicates potential for using this approach to develop a deeper understanding of how an environment emotionally and physically affects different individuals.

The second phase of the workshop asked each participant to identify any insights they gained during the mapping process. A sample of recorded insights includes:

“There are not many birds in the bush currently; only the occasional one was seen or heard.” – Participant 1:3
"You may miss little events + special details by glancing over your surroundings. The more you look the more you see" – Participant 1:5.

"As I stood alone longer, more wildlife flew near, as if I had earned their trust. To begin with you do not see a lot of wildlife." – Participant 1:4.

"The path terrain is interesting – it varies greatly in the 5m before me: rock, moss, roots, puddle and boardwalk." – Participant 2:3.

For all observed insights see the participant worksheets in appendix 3. In order to gauge the common themes, the insights were sorted into the following common themes: water, sun, birds, time, plant life, human life, landscape and self, self, temperature and terrain. (figure 9.7 an 9.8 shows the workbook panel of this process panel).

From this the following key insights were extracted:

• Sunlight changes the landscape, effecting the sight, sound and feel of the environment.
• Track terrain can include varying surfaces.
• Birdlife is captivating yet scarce.
• Wildlife does not remain one place for long.
• Increased appreciation comes as time spent in the location is increased.
• Humans and signs of human activity are always present.
• There is value in waiting in the landscape.
• With so much to observe, it is impossible to describe everything.

Figure 9:7: Worksheet observations compiled
The insight phase concluded by asking participants to consider how they might use the above insights when designing for enriched experiences in the natural environment. A sample of participant comments (for all insights, see participant worksheets in appendix 3):

- "Encouragement to stop + reflect individually for a moment." – Participant 2:1
- "Sheltering from the noise of the road by walking near water" – Participant 1:3
- "More emphasis on hiding/making less conspicuous human intervention" - Participant 2:1
- "Think about semipermanent solutions." – Participant 1:5
- "Help people appreciate the difference between staying and observing rather than just passing through" - Participant 2:5

The categories of insight fell into the following categories: Reducing/compensating for road noise, making human intervention less conspicuous, encouraging people to stop and look and listen, a need for opportunities for interaction with nature, take advantage of natural settings, use semipermanent solutions, and encouraging solo journeys and interaction between users. Six questions are elicited from the above insights and are used as prompts for addressing the development of the shortlisted wayfinding ideas (the questions are as follows).

<table>
<thead>
<tr>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) How can the intervention help reduce or make the signs of human intervention less conspicuous?</td>
</tr>
<tr>
<td>2) How can the intervention entice the audience to slow down and take extra time to absorb their surroundings?</td>
</tr>
<tr>
<td>3) How can the intervention encourage interaction between groups and individual users of the track and park?</td>
</tr>
<tr>
<td>4) How can the intervention create more opportunities for human-wildlife and human-nature interaction?</td>
</tr>
<tr>
<td>5) How can the intervention be more sympathetic to the temporal nature of the landscape?</td>
</tr>
<tr>
<td>6) How can the intervention take further advantage of and utilize the natural surroundings, including the use of natural materials and elements?</td>
</tr>
</tbody>
</table>
9.5 Design Development Phase

The idea development phase saw each of the above questions applied to the four shortlisted wayfinding schemes. These were also the subject of the study in chapter eight that had been subject to Shedroff’s experience design model. This produced a body of developed iterations. Much like chapter eight, the following section showcases one of the four wayfinding concept developments in detail (Table 9.6) while the other three are included in Appendix 3. In addition, the six questions also produced a number of iterations that were found to be interchangeable across all four wayfinding solutions. These interchangeable solutions are highlighted in grey in the following table.

The Scavenger-hunt concept prioritises learning through game-based activity. The initial concept (figure 7.8) uses clues to prompt the end-user to search the surrounding environment for the answers. In participating, the end-user begins to learn about the natural environment and contextualise the knowledge gained, which in turn forges deeper understanding.

In summary, the key enhancements prompted through the landscape temporality model and

<table>
<thead>
<tr>
<th>Table 9.6: Design Iterations of Scavenger Hunt including Interchangeable elements as Prompted by the 6 elicited questions</th>
</tr>
</thead>
</table>

1. Increasing variances in spacing between answer markers and variances in the degree of findability may assist in controlling the pace and speed. In addition, this will reduce the potential for boredom.

2. Increasing an emphasis on seeking out the real version of the represented figure, through introducing hints (eg. the Whio love the white water of the river) and challenges (eg. how many Fantail can you spot along the trail).

3. The wayfinding solution can include mini detours that lead the user off the existing track. This increases both the time spent on the track and the area covered and explored by the user.

4. Introducing designated areas for resting and waiting on nature.

5. Positioning rest areas off the main track, and to some degree making them hidden.

6. Utilising clues to draw the users’ attention away from the sounds of traffic or signs of human intervention.

7. Overall marker size of markers may be small and more complementary to the surrounding environment, less ‘in-your-face’, and be more strategically located to reduce the number of markers required.

8. Positioning rest areas off the main track, and to some degree making them hidden.

9. Educating users with ways they can help keep the natural environment pristine through providing ways the user can participate in recovery efforts of that track.

10. Camouflaging built amenities. This can be done by using natural materials found in the area, and encouraging nature to grow over and cause amenities to blend in.

11. Oddly located markers, or markers interacting with one another, may spark conversation and curiosity. The difficulty in finding some answers may cause groups to interact.

12. Online forums and feedback portals allow users to discuss scavenger hunt clues and answers and other track attractions.

13. How can the intervention encourage interaction between groups and individual users of the track and park?

14. Utilising clues to draw the users’ attention away from the sounds of traffic or signs of human intervention.

15. How can the intervention help reduce or make the signs of human intervention less conspicuous?

16. At track end or in village areas introducing visitor chalkboards where park users can write about some of the things they spotted out on the trails (e.g. Whio spotted on bridal veil creek 2.43pm, or Kea up to no good at the café, 4.05pm).

17. How can the intervention entice the audience to slow down and take extra time to absorb their surroundings?

18. Increasing variances in spacing between answer markers and variances in the degree of findability may assist in controlling the pace and speed. In addition, this will reduce the potential for boredom.

19. Increasing variances in spacing between answer markers and variances in the degree of findability may assist in controlling the pace and speed. In addition, this will reduce the potential for boredom.
Chapter Nine: Ingold and Landscape Temporality

How can the intervention create more opportunities for human-nature experiences—literally getting in touch with nature. Encouraging a tactile approach through the forest and any presented obstacles. Encouraging users to go over under, around and through the forest, engaging all of the senses. Markers and mini detours encourage trend and Memes in a natural setting. Prompting users to participate in current trends, encouraging users to employ other means of wayfinding, and adding mini detours to the path of the user. This would reduce the peer-pressure of having to keep going, as people can remove themselves from the walking track to a designated area that encourages a waiting on nature. As mentioned previously, the Landscape Temporality process elicited a number of design iterations that are interchangeable across all four main concepts. These iterations focused primarily on how intervention could aid or enhance the qualities that the questions raised. For example, in order to adapt to the changing environment it would be advantageous to develop a wayfinding system that is quick and easy to implement, change and maintain. Likewise, providing secluded rest areas along a track would reduce the peer-pressure of having to keep going, as people can remove themselves from the walking track to a designated area that encourages a waiting on nature. These design iterations primarily focus on the experience rather than the development of a product and suggest a wider array of potential solutions. For example, the use of ‘memes’ or internet trends, encouraging users to employ other means of wayfinding, and adding mini detours to the track increases the variability of the track and tactility with the environment. When examining the interchangeable enhancements, there is a sense that as these iterations are addressing universal landscape opportunities they may also be valuable on a larger scale that is not defined by this particular project. For example, one of the prompted enhancements suggested incorporating current events such as track slips and washouts in the wayfinding scheme as a means of educating the user on the changing landscape and any potential hazards. Likewise in reducing the need for additional objects may aid a sense of immersion design development phase related to the narrative of the experience and acknowledging that walking and wayfinding unfolds in time. In this respect, a number of the design iterations consider wayfinding as a series of unfolding elements. For example, a series of markers could employ the changing landscape and any potential hazards. For example, in order to adapt to the changing environment it would be advantageous to develop a wayfinding system that is quick and easy to implement, change and maintain. Likewise, providing secluded rest areas along a track would reduce the peer-pressure of having to keep going, as people can remove themselves from the walking track to a designated area that encourages a waiting on nature. As mentioned previously, the Landscape Temporality process elicited a number of design iterations that are interchangeable across all four main concepts. These iterations focused primarily on how intervention could aid or enhance the qualities that the questions raised. For example, in order to adapt to the changing environment it would be advantageous to develop a wayfinding system that is quick and easy to implement, change and maintain. Likewise, providing secluded rest areas along a track would reduce the peer-pressure of having to keep going, as people can remove themselves from the walking track to a designated area that encourages a waiting on nature. These design iterations primarily focus on the experience rather than the development of a product and suggest a wider array of potential solutions. For example, the use of ‘memes’ or internet trends, encouraging users to employ other means of wayfinding, and adding mini detours to the track increases the variability of the track and tactility with the environment. When examining the interchangeable enhancements, there is a sense that as these iterations are addressing universal landscape opportunities they may also be valuable on a larger scale that is not defined by this particular project. For example, one of the prompted enhancements suggested incorporating current events such as track slips and washouts in the wayfinding scheme as a means of educating the user on the changing landscape and any potential hazards. Likewise in reducing the need for additional objects may aid a sense of immersion...
in the natural environment. It is in eliciting such possibilities that the value of the landscape Temporality, approach, is evident. This approach prioritises an approach on the landscape as a core-contributing aspect. More importantly it is one that is not restrained by the concept or product being designed. For it is in directly observing the landscape that the designer can begin to design for those qualities that are specific to the location.

9.6 Productivity and Use of Landscape Temporality Model

In order to understand the value of using the landscape’s temporality model as a tool for design development, the following table (Table 9.7) was drafted. This table lays out the six questions, as inspired by the student’s observations and insights, and the number of design enhancements each of these prompted. In addition to the four wayfinding concepts, a fifth category is included. This category assesses the interchangeability of the design iterations as identified in the previous section. The interchanging design enhancements numbered is additional to those listed against the initial four wayfinding concepts.

| Q1: How can the intervention help reduce or make the signs of human intervention less conspicuous? |
| Q2: How can the intervention entice the audience to slow down and take extra time to absorb their surroundings? |
| Q3: How can the intervention encourage interaction between groups and individual users of the track and path? |
| Q4: How can the intervention create more opportunities for human-wildlife and human-nature interaction? |
| Q5: How can the intervention be more sympathetic to the temporal nature of the landscape? |
| Q6: How can the intervention take further advantage of and utilise the natural surroundings, including the use of natural materials and elements? |

Scavenger Hunt 1 2 1 2 2 2
Story Telling 1 2 1 - 1 2
Statistic Based 1 2 1 - 1 2
Choreographed by Nature 1 2 1 1 1 2
Interchangeable 4 3 2 4 2 4

Table 9.7: Number of Design Iterations prompted for each of the concepts.

From this analysis, it is apparent that questions 2 and 5 added the most value, prompting design iterations across all projects. It was also noted that some of the prompted developments were relatively interchangeable across the other concepts. It demonstrates the overall benefit of the landscape temporality model and the value Ingold’s understanding of landscape can bring to the design process. This supports a reorientation of the design approach, such that the emphasis is on landscape rather than design output driven. The notion that this design approach is landscape driven rather than design output driven. This supporting the initial call to enlist the landscape as a core-contributing component.

In addition to the insights observed by the students, the following qualities regarding the process and environment were noted. First, the landscape is saturated with a vast number of elements and in the time allotted it appears impossible to notice and record it all. This suggests that, the end-user will miss numerous elements of the environment. As they pass through the environment, they spend even less time in a single location.

Second, in the act of recording some elements are perceived as inconsequential and, therefore, not recorded. For example, only two participants recorded the presence of clouds. Likewise, ‘track’ or ‘path’ was recorded, but not the materials the track was made of (only one participant mentioned gravel and this recording was due to observing the sound).
Third, the mapping gave the participant flexible approach to recording. This openness allowed for a rich and highly personalised variety of words, phrases, sketched and linkages to be collected. Figure 9.7 shows a sample of the various recording styles used by the participants; from those who recorded with all text (figure 9.7 image A) to those who predominantly used images (figure 9.9 image B).

In terms of the mapping approach, there is the strong possibility that the relatively prescribed nature of the mapping process may have been unnecessarily complex. The itemisation of the different landscape qualities may impede the interaction and recording of the surrounding environment. In order to reduce complexity, one recommendation would be to reduce the itemising of qualities (human activity, animal activity, life processes of the world) while maintaining the key aspects of the mapping, such as the orientating of self, recording of activity/taskscape and the 3 senses (hear, see, feel).

In the case of this research, only one aspect of the material generated by the participants was examined, and it was these that elicited the six questions used in the design development phase. The model and approach also collects much more than this. First, it offers information about the individual making the map, emphasizing their relationship with the location and any similar experiences they have encountered. Second, it offers a comprehensive map of the landscape that includes qualities of the environment, activity, and feelings (both physical and emotional) regarding that location. The latter suggest additional opportunities for the designer, especially in the design of interventions that can engage, draw out, and provoke both emotion and physical feelings.

An alternative approach to utilizing the recordings could be in viewing the maps as a collective investigation of place. Where, through lining up each map as it was orientated on the track, a more holistic picture of the mapped location could be gained. Figure 9.10 reveals a schematic of...
such collective and the potential of further research in this area. An example of how each map inherently lines up can be seen in both groups. The recording of trampers along the bridal veil and Coral Track are seen on all ten maps, albeit at different times and with different levels of interaction a picture of temporality becomes ever more apparent.

9.7 Chapter Discussion

The model developed from Tim Ingold’s position included a number of differing processes. These began beginning with a detailed site visit where the landscape was mapped according to Ingold’s model of landscape. From this, the maps and associated insights were reviewed to extract six core directives to prompt the ongoing development of the four core concepts being investigated during this research. Key findings included:

• The model enables the enlisting of landscape as a core-contributing component and which can uncover opportunities to knit the partially developed design concept into a place. Specifically it allowed for a prioritising of environment and an openness that encouraged a creative richness.
• Where Shedroff’s model calls for filling in already identified experiential gaps Ingold’s model uncovered additional opportunities.
• The model heightened awareness of tendencies to generalise the landscape and offered a countering method to record and design more contains and local landscape understandings and relationships of landscape.
To conclude this dissertation, this chapter now reviews the refined wayfinding concepts, the research stages, and the overall value and contribution of this research.

10.1 Iteration Compilation

The development undertaken by the four concepts resulted in a body of iterative changes, possibilities and dialogue. In order to develop and construct refined solutions the iterations from both processes were combined. It is important to note that not all iterations were utilised in the final refined solutions. The following pages showcase the four developed concepts: ‘Choreographed by Nature Wayfinding’ (figures 10.1), ‘Scavenger Hunt Wayfinding’ (figures 10.2), ‘Storytelling Wayfinding’ (figures 10.3), and ‘Statistics-based Wayfinding’ (figures 10.4).

The process of compiling the iterations involved laying out all iterations and incorporating the most relevant into a consolidated and refined solution. The visualisations for each concept is annotated with reference to the model that initiated the development characteristic: blue for Shedroff and yellow for Ingold. The concept visualisations are displayed on the following pages; a detailed discussion and evaluation for ‘Choreographed by Nature Wayfinding’ follow these.
Figure 10.1: Refined Choreographed by Nature: Wayfinding

1) Welcome panel invites users to participate.
2) The nature shaped marker integrates with existing interventions.
3) Based upon wildlife habitats and types of movement.
4) Encouraging discovery through various localities and placements.
5) Tells the narrative of wildlife daily habits.
6) Digital technologies as an extended information resource.
7) Introduction of other species, celebrating differences.
8) marker directs, hints at the location of the next

9) Tactile involvement: over, under, around, and behind.
10) High touch flat areas to walk on nature.
11) Using the environment as architectural feedback.
12) Introducing mini ferrets.
13) Woven play and interaction with the environment.
14) guiding user over natural sound barriers
15) Digital technologies to access online communities, forums, and real-time information.
16) Farewell message, with prompts for other trails and resources.
17) Attachment mechanism that makes it easy to implement and update the wayfinding system.
18) Prompting messages on the marker, slow, look.
19) Weaving in and around the path creates multiple entry points.
Figure 10.2: Refined Scavenger Hunt Wayfinding

1) Placement habit is factually correct.
2) The relationship between the clue and marker facilitates conversation between user and environment.
3) Various entry points with a number of clues located on the markers.
4) Welcome panel and clue sheet pick up.
5) Exit panel, opportunity to verify answers.
6) Ability to create and customize clue sheets prior to visit.
7) Tips to spot the real versions.
8) Reference tags, geocaching.
9) Spatial and difficulty variances to extend the experience.
10) Markers lead from one to the next, maintaining wayfinding capabilities.
11) Odd markers to prompt conversation.
12) Easily updated and implemented, keeping it fresh and highly adaptable to the changes occurring in the environment.
13) Difficulty level reflects how reliant the user is on the markers: easy sheets rely only on markers only whereas the difficult use no markers.
Chapter Ten: Research Discussion and Conclusion

Story of Predation in the NZ Bush

Haast’s Eagle (Harpagornis moorei) was a species of massive eagle that once lived on the South Island of New Zealand. The species was the largest eagle known to have existed. Its prey consisted mainly of gigantic flightless birds that were unable to defend themselves from the striking force and speed of these eagles, which at times reached 80 km/h (50 mph).

1080 Poison
INTRODUCED GAME:
GREAT HUNTING
EXTINCT LIST
INCREASES
BIRDS POPULATIONS
DWINDLE

PRE-SETTLEMENT
1840

COMMUNITY
TREE PLANTING
CONSERVATION WEEK 2012 - road to recovery
RESEARCH FINDS
DIDYMO CURE
MORE BIRDS RELEASED:
NUMBERS INCREASING

Figure 10.3: Refined Storytelling Wayfinding
1) Use of information panels, markers and props to tell the story.
2) Digital technology extensions, augmented reality, QR codes, video and sound clips.
3) Utilising historical documents as evidence and authenticity.
4) Invitations to get involved in recovery efforts.
5) Audio storytelling and multilingual devices.
6) Information on how to help the local environment.
7) Personal accounts and oral histories.
8) Educating and teaching users about practical solutions such as clearing traps, picking up litter.
9) Providing quiet resting spots for users to undo stress.
10) Teaching users how to spot predators, and pests.
11) Real-time statistics and information.
Native bird: 29 cm., 175 g., dark brown, spotted and barred with buff colour, yellow eyes, larger head and longer tail than little owl. During the day, moreporks sleep in roosts. By night they hunt a variety of animal...
Chapter Ten: Research Discussion and Conclusion

Table 10.1 reflects on the respective qualities each model was able to influence in the Choreographed by Nature concept. This review demonstrates the ways each model offered valuable development, though both focused the development in differing ways, Shedroff enabled focus on narrative, duration, design qualities, Ingold’s emphasised landscape, and potential opportunities for an ongoing dialogue with the environment the designs were to belocated: for example, an easily updatable and repositionable system that allows the concept to be updated regularly as the environmental needs change. That aid neither model worked counter to the underlying values in the preliminary idea. Rather both models supported a development that was iterative, and worked to improve the experiential qualities and focus.

Table 10.1: Choreographed by Nature

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Significance</th>
<th>Breadth</th>
<th>Intensity</th>
<th>Duration</th>
<th>Triggers</th>
<th>Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SHEDROFF</strong></td>
<td>The significance dimension described characteristics of wonder, beauty and freedom, where the core function of the concept was to break down constraints and habits imposed by well-defined paths. The concept’s success is in connecting users with the greater world and in drawing them away from the beaten track. The marker itself is designed to imitate the movements of local wildlife, creating a kinaesthetic narrative through the forest.</td>
<td>The ‘Breadth’ dimension drew out possibilities to consider multiple species and also-complementing existing national park wayfinding, and amenities such as interpretation, seating, shelters in order to create a bridge between human intervention and the natural environment.</td>
<td>The ‘Intensity’ dimension sought opportunities to further engagement potential, including leading the user through, over, under and around the natural environment. This increased the facility, freedom of movement and sense of discovery. It also considered the use of technology to expand the narrative.</td>
<td>The ‘Duration’ dimension assisted in the development of an additional layer of narrative that brought in representations of the represented species daily activity. In addition, this concept lends itself to creating a cohesive experience that begins at the tracks start and ends for the park user as the track finishes.</td>
<td>The ‘Triggers’ dimension developed a number of ways to enhance the connectivity and extension of knowledge offered. An example is in the placing of markers according to the movements and habitats of the represented species. For example, a feline moves in and out of the trail as it looks for freshly disturbed insects, or a kōkako scurries across the track undetected from place to place.</td>
<td>The ‘Interaction’ dimension prompted consideration of how to maintain flexibility of participation. The unobtrusive manner of the markers and integration with existing schemes enhances a sense of voluntary participation and allows users to opt in and out at will. The value of such wayfinding scheme lies in providing new ways of engaging.</td>
</tr>
<tr>
<td><strong>INGOLD</strong></td>
<td>1) How can the intervention help reduce or make the signs of human intervention less conspicuous? In pursuit of making the signs of human activity, this wayfinding concept looks to encourage and draw users closer to nature, and away from areas with high levels of human activity. It also looked at reducing the size and number of markers. In using smaller markers the wayfinding system maintains a level of unobtrusiveness.</td>
<td>2) How can the intervention entice the audience to slow down and take extra time to absorb their surroundings? In this the wayfinding concept seeks to provide opportunities to prolong the time a user will spend in the natural environment, this is done through mini detours and providing idyllic resting spots for the user to rest and wait on nature.</td>
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</tbody>
</table>
3) How can the intervention encourage interaction between users, both individuals and groups, the concept was developed to incorporate a series of waymarkers each with their own narrative and choreography as per the represented species. This creating dynamic and individual experiences. It is these experiences users tend to share. Secondly, the need for social interaction or merely share ones stories has seen the need to incorporate smart phone technologies that link in to wider user base, offering social networking opportunity and further information providing opportunities to encourage.

4) How can the intervention create more opportunities for human-wildlife and human-nature interaction?

Encouraging users to take time to experience and learn about nature and its inhabitants. For the core premise of this concept is to encourage a tactile interaction with nature, as the user follows the path inspired by a member of the local wildlife, they will need to manoeuvre around, under and over presented obstacles.

5) How can the intervention be more sympathetic to the temporal nature of the landscape?

In endeavouring to increase the temporal scope of the concept it was apparent the final wayfinding device needed to adapt to the environment, be easily changed and updated, this catering for return visitors, environmental demands and reducingreuse.

6) How can the intervention take further advantage of and utilise the natural surroundings, including the use of natural materials and elements?

In seeking to incorporate more of the natural environment this wayfinding concept actively leaves the well formed tracks, the user will encounter rocks, tree trunks, streams etc. In this the wayfinding system prioritises the encouragement of a sense of play and discovery, as the user experiences the natural environment form the perspective of the local wildlife in doing so learning about that represented species. In doing so they seek out opportunities to protect these places. This scheme facilitates involvement as play.

4 Qualities of Chapter Six

1) protect, enjoy, and be involved

This scheme relies on the notion that through being involved in positive and enjoyable activity in nature one is likely to seek out opportunities to protect these places. This scheme facilitates involvement as play.

2) Conservation underpinning

The Scheme focus the users attention on specific species that live in the environment, this acts as a prompt to remind people of the wildlife that inhabit the natural environment.

3) Celebrating the Public Conservation Estate and regional differences.

In allowing species related markers endemic to the local area the wayfinding scheme is able to tap into regional differences.

4) Look and see without explicitly saying look

Each marker is treated according to the movements of the represented species, in this the user is required to seek out each marker. Encouraging discovery through providing an alternative perspective to the immediate surroundings.

5) Heightened interactivity and engagement

The Scheme prioritises a tactile and kinaesthetic: narrative of walking as guided by local wildlife.

6) Sense of reward

Challenge is offered as the wayfinding scheme invites the user to manoeuvre over and around natural elements.

7) Unfolding through time

The experience relies on the unfolding in time, for without the unfolding in time the wayfinding scheme becomes utilitarian.

8) Accessible information and knowledge

This concept was not overly focused on providing information and knowledge as its primary goal is to entice a tactile and kinaesthetic experience but it does provide some knowledge about place and the represented species – there is also the opportunity to utilise supplementary technologies.

9) Enticing new users while remaining sympathetic to the values of seasoned users.

The small size remains unobtrusive to seasoned users, more importantly the experience has the potentially to involve a different audience.

10) Challenges previous assumptions towards wayfinding design, understanding the experience relies on the unfolding in time, for without the unfolding in time the wayfinding scheme becomes utilitarian.

Challenging the assumption that wayfinding exists to lead the user out of the forest, by focusing on lending them into, and into experiencing the place.
10.1.2 Developed concepts versus the ‘Orange Triangle Marker’

In Chapter Five a table was developed to assess the strength of an existing wayfinding system ten core themes or design opportunities that were identified in the initial scoping studies of Chapter Five and Six. This table is now used to evaluate those concepts further developed in response to Shedroff’s and Ingold’s models (table 10.2).

<table>
<thead>
<tr>
<th>NO</th>
<th>Some</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protect, enjoy, and be involved</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>Conservation underpinning</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>Celebrating the Public Conservation Estate and regional differences</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>Look and see without explicitly saying look</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>Heightened interactivity and engagement</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>Sense of reward</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>Unfolding through time</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>Accessible information and knowledge</td>
<td>☑</td>
<td>☑</td>
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<tr>
<td>Enticing new users while remaining sympathetic to the values of seasoned users</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>Challenges previous assumptions towards wayfinding design</td>
<td>☑</td>
<td>☑</td>
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</tbody>
</table>

Table 10.2: Developed Wayfinding concepts versus the existing ‘Orange Triangle Marker’

The table shows that the programme of research undertaken significantly shifted the capacity of wayfinding to support a wide spread of conservation values. It indicates that both Shedroff’s and Ingold’s models shifted in favourable ways key dimensions related to both conservation and user experience.

10.1.3 Iteration completion summary

This stage of the research consolidated the design iterations previously developed through implementing the two key models. This pursuit highlighted the benefits of using multidisciplinary approach that prioritises a phenomenological inquiry. Where Shedroff focused on the experiential qualities, Ingold held the landscape forefront as a core-contributing factor, enabling solutions grounded in place and landscape that provided a rich user experience. This phase allowed for the realisation of four experientially rich solutions that embodied the findings of the research in a series of concepts ready for consideration by stakeholders in New Zealand’s public conservation lands. That said, it is important to note that the underlying goal of this research does not lie in developing definitive solutions but rather in identifying and understanding the potentials of experience-based design approaches.
10.2 Research Discussion

At the outset, this research pursued a ground-up approach that was driven from a position of prioritising users and their experiences of the pCL. Key literature was reviewed in the fields of contemporary nature experiences, and the affordance and agency of both landscape and Experience Design. From this, two models were selected – namely those articulated by Shedroff and Ingold – and these were closely examined and used as key tools during this research. The following section discusses the research stages, key findings, as well as the questions that arose.

Figure 10.5 presents a schematic overview of the design process that maps the key stages of observation at Arthur’s Pass National Park, observation of wayfinding, ideation appears, the application of Experience Design and Landscape Temporality Models, and then the final compilation stage. Taken together it demonstrates a rich and sustained body of design-based research.

10.2.1 Stage One: Scoping Opportunity in Arthur’s Pass National Park

This Initial stage focused on undertaking an observational scoping study of APNP. This study involved a detailed site visit to APNP, where a range of IDEO-based user-centred design methods were used to gather insights. Key findings included:

- Diversity of users
- Diversity of place and affordances
- Noting how the type of engagement and interaction had a flow on effect towards the users outcomes, perceived connection and future action.
- Key sites were identified as having potential for designed based interventions including Visitor Centres, roadways, on tracks, wayfinding, and urban filtration including online interventions. But most importantly, given the breadth of possibilities noted during this phase, wayfinding on-tracks offered fruitful opportunities for a rich study of experience focused design.

Key questions that arose included how could wayfinding interventions foster personal discovery of place and engagement with place? In what ways could wayfinding design reduce the homogenizing and generalising of place, experience and users?

10.2.2 Stage Two: Wayfinding

This stage involved the identification of wayfinding opportunities through a close examination of track elements and review of relevant literature. It was generally found that:

- Wayfinding is utilitarian, and experiential dimensions were usually not considered.
- Wayfinding is complex and no single wayfinding solution can accommodate all requirements.
- Wayfinding involves many more dimensions than those specifically directed by explicit wayfinding tools.

A key question that arose from this phase was how can wayfinding solutions enrich user engagement in a New Zealand National Park context? This became the key applied aspect to this research.
It was identified that there was a limited palette of tested concepts relevant to New Zealand PCL available. Instead, the orange triangle marker was the standard solution implemented. To increase the range possibilities a series of ideation workshops with academic staff and postgraduate researchers was undertaken. Key findings include:

- By removing the utilitarian focused constraints of wayfinding (such as cost, installation, vandalism and a desire for a single national standard) a rich suite of experiences could be conceptualised.
- Four ‘types’ were able to be selected that represented more fully a spread of wayfinding experiences in a National Park setting that could catch user engagement.

Key questions arising from this stage included how could the potential of these concepts be more fully resolved to further increase user engagement.

10.2.4 Stage Four: Shedroff’s Experience Design Model

Nathan Shedroff’s Experience Design Model was employed to add value to each of the four identified wayfinding concepts. The key findings associated with this are:

- Shedroff’s model provided a prescriptive starting point prompting increased experiential outputs and increased dialogue between the designer and the design offering.
- Each element prompted by Shedroff held, in terms of this research, differing degrees of relevancy.
- Shedroff’s model is a productive tool for qualifying and evaluating the experiential qualities and offered a number of opportunities for iterative development.
- There is an opportunity to enhance Shedroff’s Model, resolving a number of issues arising in the process; but the most problematic issue was that Shedroff’s model prioritised the designed environment over utilising existing environments.

Key questions that arose were how could the multiple idea iterations and rich dialogue Shedroff’s model produced be consolidated into a single solution? How can the location of experience, in this case the National Park landscape, be prioritised as a core component of the experience?

10.2.5 Stage Five: Ingold’s Landscape Temporality Model

This stage included a number of differing processes beginning with a detailed site visit where the landscape was mapped according to an Ingold’s model of the temporality of the landscape: The resulting maps and associated worksheets were reviewed to extract six core directives to prompt the development of the identified concepts. The key findings included:

- The model enabled the enlisting of landscape as a core contributing component, to uncover opportunities to knit the concepts into place.
- Where Shedroff’s model called for the filling of experiential gaps Ingold’s model uncovered previously unrealised opportunities.
- The model heightened awareness of tendencies to generalise the landscape, offering a way to record a landscapes more particular qualities and design accordingly.

The process adopted was but one way of implementing Ingold’s theory in design: in what other ways could Ingold’s theory aid design development, and how else may the produced model inform designers, planners, architects etc. in creating for specific environments? In addition, the produced designs were once again an iterative product rather than solely transformative: in this how can these be consolidated into a final solution?

10.2.6 Stage Six: Iteration Compilation

After implementing the two selected models, it was evident an additional stage would be beneficial so...
that final solutions from the many versions could be produced. Key findings include:

• The multidisciplinary approach increased the scope of imaginative potential for wayfinding in New Zealand PCL and has shifted the focus from the mechanics of wayfinding artefacts towards integration of landscape and the experiential qualities wayfinding might generate within the environment.

• This approach is a benefit to PCL management as it prioritizes a sympathetic consideration towards the implementation of human intervention in a predominantly non-human space.

Key questions arising from this stage include, how would the PCL stakeholders receive the final concepts? What potential exists for future implementation of these solutions and the process that produced them?

10.2.7 Research Summary

In summary, the research employed a number of phenomenological tools to examine the area of opportunity. It produced a spread of potential solutions, enlisted two theoretical models and consolidated the multiple variations into four refined wayfinding solutions.

The research worked within an understanding of the Public Conservation Lands as catering for a diverse range of users, landscapes, and desired experiences. For it has shown that the experiential potential of PCL wayfinding systems can increase possibilities for user engagement. The conceptual models developed by Shedroff and Ingold were able to identify and balance the users needs, the landscape requirements and the experiential design opportunities. In this, the research has demonstrated these phenomenologically-based models can add value to design outcomes, and as such can assist the generation of experientially rich and environmentally attuned concepts. Most importantly this process reinforces the notion that it is not about producing a definitive solution but rather value exists freeing up the potential of nature-based context and in the widening the scope of possibilities.

10.3 Research Conclusion

The experientially based design approach adopted by this research has very strong potential for application in design-based research and practice. This research shows potential for critical examination of research, both, for design and through design. Furthermore, it supports a more experimental approach to design research in which innovation in terms of design outcomes and understanding are explicitly sought.

This research shows that the Conceptual models developed by Shedroff and Ingold are able to add focus to the design process. Shedroff’s Experience Design Model dissects the designing of an experience into a number of dimensions and underlying elements to be designed within, this simplifying a rather complex discipline of design. The model inspired by Ingold’s Landscape Temporality, however, is less concerned with design outputs and more focused on emancipating potential offered within a landscape, and so forming a foundation that is imbued with the qualities of the landscape. As such, this model becomes a valuable tool for designing temporally rich intervention.

Moreover, the results and productivity of using these models is arguably affected by the model user, their skill level and experience using similar models, their understanding of the context, willingness to get it wrong, attention and focus for the task and time constraints.

It is not a case of selecting one model over the other for they both have merit, and in hindsight complement one another. Where Shedroff lacked in environment focus, Ingold excelled and likewise, where Ingold lacked on design qualities, Shedroff excelled. As a designer, I found the model inspired by Ingold’s work more fulfilling, for the inquiry process was neither rigid nor mechanistic or fixed to a predetermined solution. The model facilitated a rich inquiry into the environment that the interventions were intended.
Experience of the environment matters. This research has been strongly focused in this understanding and has shown that phenomenological tools can add value and provide richness to design-based developed environmental interactions.

In terms of the Public Conservation Lands of New Zealand, the solutions produced expand the opportunity of what can be designed, and it offers new possibilities for the DOC. This is particularly beneficial when focusing on issues of landscape and user relationship. However, the value of this research is not in producing tangible solutions that encourages engagement and reconnects people to the natural environment (though four have been generated), but rather the ability this research has in building the imaginative scope of wayfinding opportunities in what are arguably some of this country’s most special places.

Through this research, I am convinced that it is not a matter of forcing people to engage in certain ways on experience certain aspects of the public conservation lands, but rather providing the means for people to discover their own sense of place, and relationships and connections with the natural environment, whatever that may be. The research itself has developed a number of potential solutions to facilitate such a means. Each of the presented concepts enlists their own way of encouraging users to engage and learn about the natural environment. Underlying this research, and also in regards to shifts in my position is a result of this research, lies a call for stakeholders to get involved, get out there and personally discover what makes New Zealand’s Public Conservation Lands special to them.

1 It is worth noting that work developed in the course of this research has been very favourably received by the DOC, including senior managers in the Southland, Otago, Westland, and Canterbury conservancies, including staff at Arthur’s Pass National Park.


Tourism New Zealand (2009). Pure As: Celebrating 10 Years of 100% Pure New Zealand. Wellington.  
Muhlhausen, J. (2002). "Wayfinding is Not Signage. Signs of the Times Magazine  
The images referenced below are those not generated by the researcher or photographed as part of this research, and are cited accordingly. All images photographed as part of this research have permission to be printed in this document. If you wish to use the images generated from this research please seek permission from the researcher.

Figure 1.1: Map of land administered by the Department of Conservation.
'Map of Conservation Land' - retrieved, 08 December 2010

Figure 2.1 Image A: Atrium, Wall Street Mall, Dunedin

Figure 2.1 Image B: Dolphins at SeaWorld, Orlando
http://www.seaworld.com 'where worlds connect’ - retrieved, 04 June 2011

Figure 2.1 Image C: Rainforest Cafe
http://www.rainforestcafe.com ‘a wild place to shop and eat’ - retrieved, 04 June 2011

Figure 2.1 Image D: Hydrating Mist by Living Nature

Figure 2.2: 100% Pure Campaign
Tourism New Zealand. [2009] Pure NZ: Celebrating 10 Years of 100% Pure New Zealand. Wellington

Figure 2.3: Google Image Search ‘Milford Sound’

Figure 3.1: Experience Design Model
Shedroff, N. [2009]. Experience Design 1.1: A Manifesto for the Design or Experiences California, Experience Design Books. (p4)

Figure 3.2: Core meaning priorities

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APPENDIX 1.1: SCAVENGER HUNT WAYFINDING CONCEPT

The following figures (figure 3 and 4) present the transcript of research and development made to the Scavenger Hunt Wayfinding concept during the implementation of Nathan Shedroff’s experience design model (refer to chapter three for element descriptions).

APPENDIX 1.1.1: SCAVENGER HUNT WAYFINDING CONCEPT

ENGAGEMENT

- The experience begins with an introductory panel that includes an orientation and discussion of departmental goals. This may include a short lecture before starting.

- Different experiences may be highlighted and demonstrated bi-weekly.

- The experience could be tailored to fit the needs of different audiences.

- Level of difficulty or skillability.

- Skill different game boards encourage competition within the group.

- The experience begins with an introductory panel that includes an orientation and discussion of departmental goals. This may include a short lecture before starting.

- Different experiences may be highlighted and demonstrated bi-weekly.

- The experience could be tailored to fit the needs of different audiences.

- Level of difficulty or skillability.

- Skill different game boards encourage competition within the group.

- The experience begins with an introductory panel that includes an orientation and discussion of departmental goals. This may include a short lecture before starting.

- Different experiences may be highlighted and demonstrated bi-weekly.

- The experience could be tailored to fit the needs of different audiences.

- Level of difficulty or skillability.

- Skill different game boards encourage competition within the group.

- The experience begins with an introductory panel that includes an orientation and discussion of departmental goals. This may include a short lecture before starting.

- Different experiences may be highlighted and demonstrated bi-weekly.

- The experience could be tailored to fit the needs of different audiences.

- Level of difficulty or skillability.

- Skill different game boards encourage competition within the group.

- The experience begins with an introductory panel that includes an orientation and discussion of departmental goals. This may include a short lecture before starting.

- Different experiences may be highlighted and demonstrated bi-weekly.

- The experience could be tailored to fit the needs of different audiences.

- Level of difficulty or skillability.

- Skill different game boards encourage competition within the group.

- The experience begins with an introductory panel that includes an orientation and discussion of departmental goals. This may include a short lecture before starting.

- Different experiences may be highlighted and demonstrated bi-weekly.

- The experience could be tailored to fit the needs of different audiences.

- Level of difficulty or skillability.

- Skill different game boards encourage competition within the group.

- The experience begins with an introductory panel that includes an orientation and discussion of departmental goals. This may include a short lecture before starting.

- Different experiences may be highlighted and demonstrated bi-weekly.

- The experience could be tailored to fit the needs of different audiences.

- Level of difficulty or skillability.

- Skill different game boards encourage competition within the group.

- The experience begins with an introductory panel that includes an orientation and discussion of departmental goals. This may include a short lecture before starting.

- Different experiences may be highlighted and demonstrated bi-weekly.

- The experience could be tailored to fit the needs of different audiences.

- Level of difficulty or skillability.

- Skill different game boards encourage competition within the group.

- The experience begins with an introductory panel that includes an orientation and discussion of departmental goals. This may include a short lecture before starting.

- Different experiences may be highlighted and demonstrated bi-weekly.

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- Different experiences may be highlighted and demonstrated bi-weekly.

- The experience could be tailored to fit the needs of different audiences.

- Level of difficulty or skillability.

- Skill different game boards encourage competition within the group.

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- Skill different game boards encourage competition within the group.

- The experience begins with an introductory panel that includes an orientation and discussion of departmental goals. This may include a short lecture before starting.

- Different experiences may be highlighted and demonstrated bi-weekly.

- The experience could be tailored to fit the needs of different audiences.

- Level of difficulty or skillability.

- Skill different game boards encourage competition within the group.
• Drinking water from a fresh water stream.

• Would be nice to encourage people to indulge in the luxury of substances, specifically with high probability of misidentification.

• N/A - Not the ideal situation to encourage to taste unknown.

• Placement - high, low, left, right. Encourage the user to look around more often, even if it is to simply to find the next marker.

• Colour and material will aid in the wayfinding capability.

• Level of visibility can relate to ease of find-ability.

• This is a very visual experience as the clue asks the user to seek clue head towards the river or stream.

• Incorporate the use of hearing in the clues, e.g. to find your next sights.

• To encourage people to take in the smells in addition to the visual experience. Something to pass on an invitation to share.

• The location of the markers could require the user to pick things up or move obstructing objects out of the way.

• The placement of the markers and clues can go some way in encouraging the user to physically interact with the local surroundings through manoeuvring past obstacles - this physical interaction and engagement of the senses can help.

• The experience re ignites the child within, bringing with it stories of past experiences. Something to pass on an invitation to share.

• Factually Based: Life / habitat / Plant life / ecology. An invitation to remember that the forest is home to many other living creatures, each with a unique story worth telling. “The simple act of remembering is and act of preservation”.

• An invitation to remember that through participation the user learns about the item they are investigating, that through their interaction In solving clues and seeking out markers, some are increasingly integrated to understand the local environment and the inhabitants that dwell there.

• Knowledge gained about the local environment and the species being investigated can open up future interactions with others; either individually or in groups.

• The experience is led by the user, hence making it more difficult to answer questions accurately, something to pass on an invitation to share.

• The experience is unique to the user, hence making it more difficult to answer questions accurately, something to pass on an invitation to share.

• Online leaderboards, top hunters.

• Interaction between person and clue, then person and environment, then personal confirmation of clue and environment to next clue.

• Interaction - ability to check correct answers at the end, how many were correct.

• Success chart... Average, good, great, top.

• Flexibility to stop and start as the user sees fit.

• User controls the speed at which they experience the track.

• Choosing which level of difficulty suits.

• Checking for answers at the end, how many were correct.

• Feedback: leader boards, top hunters.

• 3.0 - 4.0 Fairly Active

• 4.0 - 5.0 Very Active

• 5.0 - 6.0 Interactive

• Interaction/adaptivity

• This concept when engaged with requires high levels of interaction for solving clues and solving out markers, some are considerably more difficult to find.

• Encourage people to indulge in the luxury of substances, specifically with high probability of misidentification.

• Would be nice to encourage people to indulge in the luxury of substances, specifically with high probability of misidentification.

• Encourage people to indulge in the luxury of substances, specifically with high probability of misidentification.

• Would be nice to encourage people to indulge in the luxury of substances, specifically with high probability of misidentification.

• Would be nice to encourage people to indulge in the luxury of substances. Specific stimuli will relate to the user experiencing the clue head towards the river or stream.

• Would be nice to encourage people to indulge in the luxury of substances, specifically with high probability of misidentification.
The following figures (figure 5 and 6) present the transcript of research and development made to the Storytelling wayfinding concept during the implementation of Nathan Shedroff’s experience design model (refer to chapter three for element descriptions).

**APPENDIX 1.2: STORYTELLING WAYFINDING CONCEPT**

**HABIT**
- Seeing track markers and observing interpretation panel habits, reading signs, and the adverse effect of not reading signs. The challenge is to create enough variety that keep people engaged.
- **BREAKING HABITS**: The concept is driven by the hope to break audiences’ habit of looking at the path to incorporate more surroundings, extending the user’s gaze.

**ENGAGEMENT**
- Watching the unfolding of a scene. Challenge: how much is the marker story taking away from the natural environment...is it bordering on simulation?
- Introducing digital technology. Using technology (augmented reality) to reveal the story, taking the user through time.

**DURATION**
- Begins with an interpretation panel in the shape of a newspaper page dated c1700, Land a bounty found in the south.
- Setting the scene, and introducing the audience to the language of signs.

**IMMERSION**
- As the walker enters the forest the markers appear, birdlife in abundance, the story unfolds, the further the go the more predators, and less birds.
- Depending on the track type will depend on how the story unfolds. A loop track will vary from one that requires the walker to return the same way.
- Closer to signs of human activity low to nil numbers of wildlife.

**CONCLUSION**
- The experience ends as the track ends, with current headlines, and reminder that we are still in need of a strong conservation effort to help restore and save what we have left.
- 1) Eradication of natural wildlife or 2) strong conservation effort and predator management.

**CONTINUATION**
- Suggestion and invitation of conservation efforts and further learning/resources.
- School group activities / projects to follow on from the experience.

**SIGNIFICANCE**
- Conservation. The concept has a strong conservation message, telling the story of predation and what has devastated population of endemic wildlife.
- Enlightenment. A reminder of the devastation humans have had on our natural environment. The markers help describe ways on what has caused the decline in local wildlife, in hopes of engaging them to help conservation efforts.

**MEANING**
- Conservation. The concept has a strong conservation message, telling the story of predation and what has devastated population of endemic wildlife.
- Enlightenment. A reminding people of the devastation humans have had on the natural environment. The markers help describe ways on what has caused the decline in local wildlife, in hopes of engaging them to help conservation efforts.

**VALUES and IDENTITY**
- Appreciation for nature.
- Idea helps communicate the need and urgency of conservation efforts.
- For those who call New Zealand home and want to protect it for future generations.

**EMOTION and LIFESTYLE**
- The park is used for recreation, leisure, freedom, escape into the natural world. It’s what we protect it for. It forms part of Escape, Enjoyment of exploration of nature.
- Engages for future generations.

**PRICE**
- The concept is free.
- Residual effect of the experience could see people offering donations or volunteering to aid conservation efforts.

**FUNCTION**
- The primary function is to educate users on the extent of damage done by humans and the introduction of predators into the New Zealand ecosystem. As the user walks the track a story unfolds around them. The story is presented in a way that is accessible enough for all levels of readers and a lack of illiteracy.
- The experience thought and actions in order. Encouragement to take action.

**APPENDIX 1.3:**

**STORYTELLING WAYFINDING EXPERIENCE DESIGN DEVELOPMENT WORKSHEET**

**PROJECT 1**
- The project is a series of markers and interpretation panels that tell the story of predation in New Zealand. Telling the narrative of predation in New Zealand.
- Encourage thought and reaction in users. Encouragement to take action.

**APPENDIX 2:**

**STORYTELLING WAYFINDING EXPERIENCE DESIGN DEVELOPMENT WORKSHEET**

**PROJECT 2**
- The project is a series of markers and interpretation panels that tell the story of predation in New Zealand. Telling the narrative of predation in New Zealand.
- Encourage thought and reaction in users. Encouragement to take action.

**APPENDIX 3:**

**STORYTELLING WAYFINDING EXPERIENCE DESIGN DEVELOPMENT WORKSHEET**

**PROJECT 3**
- The project is a series of markers and interpretation panels that tell the story of predation in New Zealand. Telling the narrative of predation in New Zealand.
- Encourage thought and reaction in users. Encouragement to take action.

**APPENDIX 4:**

**STORYTELLING WAYFINDING EXPERIENCE DESIGN DEVELOPMENT WORKSHEET**

**PROJECT 4**
- The project is a series of markers and interpretation panels that tell the story of predation in New Zealand. Telling the narrative of predation in New Zealand.
- Encourage thought and reaction in users. Encouragement to take action.

**APPENDIX 5:**

**STORYTELLING WAYFINDING EXPERIENCE DESIGN DEVELOPMENT WORKSHEET**

**PROJECT 5**
- The project is a series of markers and interpretation panels that tell the story of predation in New Zealand. Telling the narrative of predation in New Zealand.
- Encourage thought and reaction in users. Encouragement to take action.

**APPENDIX 6:**

**STORYTELLING WAYFINDING EXPERIENCE DESIGN DEVELOPMENT WORKSHEET**

**PROJECT 6**
- The project is a series of markers and interpretation panels that tell the story of predation in New Zealand. Telling the narrative of predation in New Zealand.
- Encourage thought and reaction in users. Encouragement to take action.

**APPENDIX 7:**

**STORYTELLING WAYFINDING EXPERIENCE DESIGN DEVELOPMENT WORKSHEET**

**PROJECT 7**
- The project is a series of markers and interpretation panels that tell the story of predation in New Zealand. Telling the narrative of predation in New Zealand.
- Encourage thought and reaction in users. Encouragement to take action.

**APPENDIX 8:**

**STORYTELLING WAYFINDING EXPERIENCE DESIGN DEVELOPMENT WORKSHEET**

**PROJECT 8**
- The project is a series of markers and interpretation panels that tell the story of predation in New Zealand. Telling the narrative of predation in New Zealand.
- Encourage thought and reaction in users. Encouragement to take action.
This experience uses markers that characterise the wildlife they imitate, how can drama be incorporated? Maintain recognition. Level of detail.

CONCEPTS
• Life/death • Good/bad • light/dark • Who’s killing our wildlife.
• Predation of endemic wildlife. From rats/stoats to dogs and humans.
• Our actions can save lives.
• Placement of markers relevant to habitual nature of the represented creature.

TOUCH
• The marker self, could include a textual element etched surface/3D/mixture.
• Predators spiny, sharp, rough to touch v.s. endemic wildlife, smooth and pleasure to touch.
• The ground and surfaces in the environment are highly textural, it gives sense to encourage people to rhythmically connect with them.

SMELL
• N/A the natural environment as the backdrop brings its own plethora for the senses.

SOUND
• N/A: The natural environment as the backdrop brings its own sound, and often lack of.. Enhancing the stories core message, the stark reminder that the forests are not highly populated with wildlife.
• Sound markers, that are activated by users.
• Audio story telling.

SIGHT
• Story unfolds along the track, markers are visible.
• Colour/opacity/tints/reflexive quality.
• The marker needs to recognisable as individual species, the level of reality or detailing will be determined by ability to be identified.
• At what distance will the varying levels of coding obstruct the recognition and wayfinding ability?

TASTE
• N/A - Not the ideal situation to encourage to taste unknown substances, specifically with high probability of misidentification.

INTERACTION
STATIC \ PASSIVE \ ACTIVE \ INTERACTIVE
• 2.5 Fairly Passive.
• Low level interactively, following along with the story as it unfolds, not physically taxing.
• Somewhat static (technology extensions will require higher levels of engagement) involves small amount of reading.

FEEDBACK • The audience can offer support/suggestions and engage in conservation efforts.

CONTROL • Degree in which they choose to participate, find some or all. Marker to information or information to marker.

COMMUNICATION • Will they get the Core message: damage done by predators/humans.
• How well is the story told? Can the audience follow along...think about connection points and multiple entry points.
• Newspaper parody, signs of the times.

PRODUCTIVITY • Telling a story about the natural environment in the natural environment.

STORYBOARD
• Abundant endemic wildlife
• Introduction of predators
• Diminished wildlife
• Conservation Efforts

COMMUNICATION guidebook good/bad/ugly.

ENGAGEMENT iapp augmented reality.

IMMERSION Track parallels walk through time.

INITIATION Newspaper communication panels.

FEEDBACK Revenue donation tree purchase marker.

REACTION Markers react to user presence.

INTEGRATION (tags sequentially read).

SUBWORMING Track possible walk through time.

SCRAMAGING Snow change marker.

CONCEPTS Two sets of markers: Style reflects Good and Evil.
The following figures (figure 7 and 8) present the research and development made to the Statistic-based Wayfinding concept during the implementation of Nathan Shedroff’s experience design model (refer to chapter three for element descriptions).

**Figure 7: Statistic-based Wayfinding experience design development worksheet**

- **HABIT**
  - Box at the beginning to pick up an information sheet taps into the reflexive nature to pick up free flyers. Markers in various colours will naturally draw our attention.

- **BREAKING HABITS**: The concept is driven by the hope to break audiences' habit of looking at the path to incorporate more surroundings.

- **ENGAGEMENT**
  - Requires the user to spot and identify the marker according to the information sheet/population key? How can we incorporate more engagement or information?
  - Bringing in technology elements...for example utilising the markers to bring up specific information on smart phones. Linking locations to information databases.

- **DURATION**
  - INITIATION
    - Begins with an interpretation panel + information sheet collection point. To introduce the user to the markers and language used.
  - IMMERSION
    - Spotting the markers and matching them to the information sheet and subsequent statistic information.
    - Birding style spotting. Checklist possibility can you find the all?
    - Some markers are naturally harder to find due to scarcity of the live species.
  - CONCLUSION
    - The experience ends as the track ends, the resolution may include a information on how you can help in the recovery efforts, or links to finding out about conservation efforts in your local region.

- **CONTINUATION**
  - Suggestions of conservation efforts or further learning/resources.
  - Extend this style of information portrayal to other statistics, species and locations.
  - Historical points of interest the older it is the more transparent?
  - School group activities / projects to follow on from the experience.

- **SIGNIFICANCE**
  - Conservation. The concept has a strong conservation message, revealing to users the extent of threatened species in New Zealand. Subsequently reveals a need that users can personally engage in recovery efforts.
  - Enlightenment. The markers help educate users on threatened species and populations of birds within the national parks. These markers are designed to create a sense of urgency within conservation issues.

- **VALUES and IDENTITY**
  - Appreciation for nature.
  - Sense of urgency within conservation efforts.

- **EMOTION and LIFESTYLE**
  - Enjoyment of exploration of nature.
  - A legacy for future generations.

- **PRICE**
  - Price N/A.
  - Residual effect of the experience could see people offering donations or volunteering to aid conservation efforts.

- **FUNCTION**
  - The Primary function is to educate users on the extent of damage done to the population of native species in New Zealand. Aesthetic and statistic based - real numbers.
  - Broadens the walkers gaze.

- **BREADTH**
  - PRODUCT
    - The product to be created is a series of bird shaped markers, modelled on the various endemic species. Each marker will be coded according to the modelled bird, population strength, and threat classification.

- **SERVICE**
  - Educational: sharing a conservation message within the natural habitat of the species at the highlighted locations/locations.
  - Educational, statistic-based - real numbers.

- **BRAND**
  - The way in which the information is delivered to the user is different from existing interpretation and educational interventions undertaken by the department. This could be seen as its capturing and trial level identity.

- **APPENDIX 1.3: STATISTI C-BASED WAYFINDING CONCEPT**
  - The concept is driven by the hope to break audiences' habit of looking at the path to incorporate more surroundings.

- **RATIONALE**
  - Requires the users to spot and identify the markers according to the information sheet/population key? How can we incorporate more engagement or information?

- **CHANNEL/ENVIRONMENT**
  - National Park Environment.
  - Markers utilise the national Park as a backdrop, setting the scene.
  - Bushwalking - volcano monitoring, weather etc.
  - Location of the marker to relevant habitat both in region and placement; ground dweller and tree - true dweller.

- **PROMOTION**
  - Track head signage to explain the language of the system, how to read the markers.
  - New Zealand Bird Society and Visitors centre's can highlight the included tracks as points of interest.

- **PRICE**
  - N/A - provided free.
  - Additional information/key sheets may be required for increased education and ease of understanding.
  - Donation System that allows the track users to help support the park and its future preservation.
This experience uses markers that characterise the wildlife they imitate.

**CONCEPTS**
- Factually Based: Life / habitat.
- Populations: fading into nothing, memories of a distant past.
- Ghostly reminders.

**TOUCH**
- The placement of the markers can go some way in encouraging the user to physically interact with the local technology through maneuvering past obstacles - this physical connection and awareness of the varying ground types.
- The marker itself could include a texture, alternatively in being smooth/shiny bring in a contrast that heightens the user's awareness of the varying textures about the place.

**SMELL**
- N/A the natural environment as the backdrop brings its own plethora for the senses.

**SOUND**
- The lack of sound is a stark reminder that the forests are not highly populated with wildlife, reaffirming the alarming nature of the statistics.

**SIGHT**
- Consider visibility, obstruction and wayfinding capability.
- Colour/opacity/tints/reflexive quality.
- Placement - high low, left right through increasing the variance in location and even frequency, we begin to remove the predictability, and encourage the user to look around more often, even if it is to simply to find the next marker.
- The marker needs to recognise as individual bird species, the level of reality or detailing will be determined by ability to be identified.
- At what distance will the varying levels of coding obstruct the recognition and wayfinding ability?

**TASTE**
- N/A - Not the ideal situation to encourage to taste unknown substances, specifically with high probability of misidentification.

**INTERACTION**
- 2.5 Fairly Passive.
- Low level interactively, spotting and identifying. Not physically taxing.
- Visual interaction.
- The user spots marker, matches marker to information sheet, finds key matches marker colour to key and uncovers the bird's threat classification. This information could be extended by offering them how to spot this species in the wild.

**FEEDBACK**
- How can we provide the user with more feedback?
- User can check their answers to see how well they did, this could be online integrated, providing a leader board and additional resources.

**CONTROL**
- Degree in which they choose to participate, find some or all.
- Marker to information or information to marker.

**COMMUNICATION of Core message**: The markers provide the details to complete the details in the information guide.

**ADAPTIVITY**
- The technique of coding could be used to portray other relational information.
- The marker colouring will enhance the message as the more transparent the marker the more environment and the less bird the user sees. Camouflage.
- The technique of coding could be used to portray other relational information.

**IMMERSION**
- Decoder card provided to aid interpretation.
- Digital technology resource extension.
- Concept extension: additional information hidden under marker.
- [ImmerSION] accompanying book and map.
- [INTeraCTION] Leader boards and online communities.
- [COMMUNICATION] digital technology resource extension.
- [eNgagemeNT] bird watching checklist.
- [CONCepT] Location relevant.
- [TOUCH/SIGHT] High detail hire site information.
- [INTeraCTION] how old are you?
- [COmmUNICaTION] extension information hidden under marker.
The following figures (figure 10 and 11) present the transcript of research and development made to the Choreographed by Nature concept during the implementation of Nathan Shedroff’s experience design development model (refer to chapter three for relevant descriptions).

Figure 10: Choreographed by Nature Skyfinding experience design development transcript

Figure 11: Choreographed by Nature Skyfinding experience design development transcript
CONCLUSION
• The experience mark in the track variety, for recreation include a
  qualifier strategy. Try to go in the right direction, it is very
  place where we can support the local wildlife.
• Fantail back home is a result.

CONSTRUCTION
• Fantail moves and in keeping, whether moves are choreographed by the
  local wildlife, the act of travelling through several different tracks
  each choreographed by a different member of the local wildlife, the user
  begins to uncover the slight and sometimes vast differences.
• Opportunities exist in having other tracks choreographed by other
  members of the local wildlife. In the act of travelling through several
different tracks you can support the local wildlife.

CONCEPTS
• Fantail is back home in its nest.
• The experience marks that characterise the wildlife they imitate for
  each species shapes a different story line.
• Fantail indoors is a sign of death.
• N/A to construct or incorporate artificial fragrance triggers/takes away
  the natural fragrance of the park.
• Fantail motion: zig-zag flitting through the bush.
• Fantails being utilised as directional arrows.
• The user to physically interact with the local surroundings through
  the changing ground type.
• Fantail return to the natural form of its habitat.
• Fantails being utilised as directional arrows.
• Fantail motion: zig-zag flitting through the bush.
APPENDIX TWO: LANDSCAPE TEMPORALITY WORKSHEETS
The following figures present the completed maps of the Landscape Temporality workshop undertaken in Arthur’s Pass. Each worksheet is coded to with group number and participant number, for example 1:2 refers to participant two of group one.
Appendices

d) participant 1.2: Coral Track, position 4.
C) participant 1.2: Coral Track, position 3.
2.1 Participant 1.2: Coral Track, Position 5.

2.1 Participant 2.1: Bridal Veil Track, Position 1.
H) Participant 2.2: Bridal Veil Track, Position 2.

H) Participant 2.3: Bridal Veil Track, Position 3.
APPENDIX 2.2: LANDSCAPE TEMPORALITY PARTICIPANT INSIGHTS

The following figure presents the second page of the Landscape Temporality Worksheet, as filled in by the participating students (figure 10 images A - J).

Figure 10: Page two of the Landscape Temporality Worksheet

A) Participant 1.1: Coral Track
B) Participant 1.2: Coral Track
C) Participant 1.3: Coral Track
D) Participant 1.4: Coral Track
E) Participant 1.5: Coral Track
F) Participant 2.2: Bridal Veil
G) Participant 2.3: Bridal Veil
H) Participant 2.4: Bridal Veil
I) Participant 2.5: Bridal Veil
J) Participant 2.1: Bridal Veil
APPENDIX 2: LANDSCAPE TEMPORALITY WORKSHEETS
APPENDIX 3.1: QUESTION 1

HOW CAN THE INTERVENTION HELP REDUCE OR MAKE THE SIGNS OF HUMAN INTERVENTION LESS CONSPICUOUS?

ITION 3.1:

Interchangeable Iterations

[SH] Overall marker size of markers may be small and more complementary to the surrounding environment less ‘in-your-face’, and be more strategically located to reduce the number of markers required, reinterpreting natural

[ST] Camouflaging built amenities. This can be done by using natural materials found in the area, and encouraging nature to grow over and cause amenities to blend in.

[Sb] Encouraging people to leave only footprints and not to add to the devastating statistics.

[CN] Markers can naturally lead the user into denser forest, near waterfalls, utilising these natural sound barriers.

[UNI] Overall marker size of markers may be small and more complementary to the surrounding environment less ‘in-your-face’, and be more strategically located to reduce the number of markers required, reinterpreting natural

[UNI] Camouflaging built amenities. This can be done by using natural materials found in the area, and encouraging nature to grow over and cause amenities to blend in.

[UNI] Encouraging people to leave only footprints and not to add to the devastating statistics.

[UNI] Markers can naturally lead the user into denser forest, near waterfalls, utilising these natural sound barriers.

APPENDIX 3.1:

QuESTIOn 1

hOw CAN thE iNTErVENtiON hELP REDuCE Or MAkE thE sigNS OF huMAN iNTErVENtiON LEss CONSPiCuOUS?

Interchangeable Iterations

[SH] Utilising clues to draw the users attention away from the sounds of traffic or signs of human intervention.

[ST] Utilising the negative impacts of human dwelling to strengthen the conservation message and in time effects may be reversed.

[Sb] Educating users with ways they can help keep the natural environment pristine through providing ways the user can participate in recovery efforts of that track.

[CN] Positioning rest areas off the main track, and to some degree making them hidden.

[UNI] Overall marker size of markers may be small and more complementary to the surrounding environment less ‘in-your-face’, and be more strategically located to reduce the number of markers required, reinterpreting natural

[UNI] Camouflaging built amenities. This can be done by using natural materials found in the area, and encouraging nature to grow over and cause amenities to blend in.

[UNI] Educating users with ways they can help keep the natural environment pristine through providing ways the user can participate in recovery efforts of that track.

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[UNI] Educating users with ways they can help keep the natural environment pristine through providing ways the user can participate in recovery efforts of that track.

[UNI] Positioning rest areas off the main track, and to some degree making them hidden.

[UNI] Overall marker size of markers may be small and more complementary to the surrounding environment less ‘in-your-face’, and be more strategically located to reduce the number of markers required, reinterpreting natural

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[UNI] Positioning rest areas off the main track, and to some degree making them hidden.

[UNI] Overall marker size of markers may be small and more complementary to the surrounding environment less ‘in-your-face’, and be more strategically located to reduce the number of markers required, reinterpreting natu
APPENDIX 3.2:
QUESTION 2
HOW CAN THE INTERVENTION ENTICE THE AUDIENCE TO SLOW DOWN AND TAKE EXTRA TIME TO ABSORB THEIR SURROUNDINGS?

[SH] Increasing an emphasis on seeking out the real versions of the represented figures, through introducing hints (e.g. the Whio love the white water of the river) and challenges (e.g. how many Fantail can you spot along the track)

[CN] Track mapped by the bird may take detours in and around the track – to places ideal resting spots, vistas and sights.

Way marker includes prompts/invitations to touch, rest, slow etc.

[UNI] Increasing variances in spacing between answer markers and variances in the degree of findability may assist in controlling the pace and speed. In addition this will reduce the perceived predictability reducing the potential for boredom.

Introducing designated areas for resting and waiting on nature.

[UNI] The wayfinding solution can include mini detours that lead the user off the existing track. This increases both the time spent on the track and the area covered and explored by the user.

Adding hidden markers. These markers include a unique code that when logged online after the user access to online videos and resources regarding the track where the code was found. The knowledge of the existence of these markers may encourage users to seek them out.

[UNI] The wayfinding solution can include mini detours that lead the user off the existing track. This increases both the time spent on the track and the area covered and explored by the user.

[UNI] Introducing designated areas for resting and waiting on nature.

APPENDIX 3.2:
INTERCHANGEABLE ILLUSTRATIONS

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APPENDIX 3.3: QUESTION 3
HOW CAN THE INTERVENTION ENCOURAGE INTERACTION BETWEEN GROUPS AND INDIVIDUAL USERS OF THE TRACK AND PARK?

Oddly located markers, or markers interacting with one another, may spark conversation and curiosity. The difficulty in finding some answers may cause groups to interact.

APPENDIX 3.5: QUESTION 5
HOW CAN THE INTERVENTION BE MORE SYMPATHETIC TO THE TEMPORAL NATURE OF THE LANDSCAPE?

Utilising current events in the clues, as a means of educating the user on the changing environment.
APPENDIX 3.4:  
QUESTION 4  
HOW CAN THE INTERVENTION CREATE MORE OPPORTUNITIES FOR HUMAN-WILDLIFE AND HUMAN-NATURE INTERACTION?

**Interchangeable Iterations**

[UNI] Markers using colours, scents and shapes that attract wildlife to the area.

[UNI] Introducing off track resting spots for the user to wait on nature.

[UNI] Encourage users to stop and wait on nature, to take ten minutes and sit and rest on nature, and to listen carefully. Create quiet and discrete resting spots for the user to wait.

[UNI] Prompt users to participate in current trends and fitness in a natural setting (e.g. planking, owling etc.).

**Scavenger Hunt Wayfinding**

[SH] Educating users on how to identify nature in a natural setting, through clues and additional information.

[SH] Introducing off track resting spots for the user to wait on nature.

[SH] Each clue leads you to the next. Each may appear within view of the previous but may require the user to work out the specifics before receiving confirmation.

**Choreographed by Nature Wayfinding**

[CN] Markers and mini detours encourage the user to go over under, around and through the forest and any presented obstacles. Encouraging a tactile experience - literally getting in touch with nature.

[CN] Leading people along a path a member of the endemic wildlife would take over trees and around bushes fostering a physical connection.

**APPENDIX 3.4:**

**QUESTION 4**

**How can the intervention create more opportunities for human-wildlife and human-nature interaction?**
APPENDIX 3.6: QUESTION 6

HOW CAN THE INTERVENTION TAKE FURTHER ADVANTAGE OF AND UTILISE THE NATURAL SURROUNDINGS, INCLUDING THE USE OF NATURAL MATERIALS AND ELEMENTS?

**Interchangeable Iterations**

**APPENDIX 3.6:**

How can the intervention take further advantage of and utilise the natural surroundings, including the use of natural materials and elements?

- ** binnenparks utilise the forest as a backdrop, for example bird markers resting in the trees, fish swimming in the streams, plants in their natural ecological settings.**
- **Creating waymarkers into trees, rocks, instead of introducing foreign materials (no need for nails or plastic markers).**
- **Using other environmental qualities to aid the visibility of markers. Introducing movement through wind and water. Introducing colour changing through weather and seasons of sun, also reflecting light. Allowing the environment to engage with the markers.**
- **Sourcing the material for the markers including from the local forest including fallen trees and fruit (this also offers opportunities for community involvement).**
- **Carving waymarkers into trees, rocks, instead of introducing foreign materials (no need for nails or plastic markers).**
- **Utilising the surrounding to help incorporate/immerse the user in the story – the user becomes a character to be played or window to the story unfold.**
- **Educate the user on how they can spot tracks and footprints of wildlife both protected and pests – encourage user to unfold the local present story.**
- **Using other environmental qualities to aid the visibility of markers. Introducing movement through wind and water. Introducing colour changing through weather and seasons of sun, also reflecting light. Allowing the environment to engage with the markers.**
- **Sourcing the material for the markers including from the local forest including fallen trees and fruit (this also offers opportunities for community involvement).**
- **Waymarkers utilise the forest as a backdrop, for example bird markers resting in the trees, fish swimming in the streams, plants in their natural ecological settings.**
- **Creating waymarkers into trees, rocks, instead of introducing foreign materials (no need for nails or plastic markers).**
- **Using other environmental qualities to aid the visibility of markers. Introducing movement through wind and water. Introducing colour changing through weather and seasons of sun, also reflecting light. Allowing the environment to engage with the markers.**
- **Sourcing the material for the markers including from the local forest including fallen trees and fruit (this also offers opportunities for community involvement).**

**Scavenger Hunt Wayfinding**

- **Focusing clues on existing elements in the environment rather than a marker. Encouraging users to seek out land formations, vistas and specific plants.**
- **Utilising the surrounding to help incorporate/immerse the user in the story – the user becomes a character to be played or window to the story unfold.**
- **Educate the user on how they can spot tracks and footprints of wildlife both protected and pests – encourage user to unfold the local present story.**
- **Using other environmental qualities to aid the visibility of markers. Introducing movement through wind and water. Introducing colour changing through weather and seasons of sun, also reflecting light. Allowing the environment to engage with the markers.**
- **Sourcing the material for the markers including from the local forest including fallen trees and fruit (this also offers opportunities for community involvement).**

**Storytelling Wayfinding**

- **[TF] Utilising the surrounding to help incorporate/immerse the user in the story – the user becomes a character to be played or window to the story unfold.**
- **[SF] Using the environment to create and hide markers, to increase the difficulty and storytelling potential.**
- **[CN] Tracks, paths created by wildlife to be alternate to board walk markers providing a sense of security for user apprehensive about leaving track.**
- **[CN] Cues to interact with the environment like the member of wildlife being presented.**
- **Utilising natural viewpoints, smells and sounds to help the user in solving the clues and or seeking their way through the track.**
- **Introduce natural viewpoints as a backdrop, for example bird markers resting in the trees, fish swimming in the streams, plants in their natural ecological settings.**
- **Create waymarkers into trees, rocks, instead of introducing foreign materials (no need for nails or plastic markers).**
- **Using other environmental qualities to aid the visibility of markers. Introducing movement through wind and water. Introducing colour changing through weather and seasons of sun, also reflecting light. Allowing the environment to engage with the markers.**
- **Sourcing the material for the markers including from the local forest including fallen trees and fruit (this also offers opportunities for community involvement).**

**Statistic-based Wayfinding**

- **[Sb] Using the surrounding to help incorporate/immerse the user in the story – the user becomes a character to be played or window to the story unfold.**
- **Educate the user on how they can spot tracks and footprints of wildlife both protected and pests – encourage user to unfold the local present story.**
- **Using other environmental qualities to aid the visibility of markers. Introducing movement through wind and water. Introducing colour changing through weather and seasons of sun, also reflecting light. Allowing the environment to engage with the markers.**
- **Sourcing the material for the markers including from the local forest including fallen trees and fruit (this also offers opportunities for community involvement).**

**Choreographed by Nature Wayfinding**

- **[CN] Tracks, paths created by wildlife to be alternate to board walk markers providing a sense of security for user apprehensive about leaving track.**
- **[CN] Cues to interact with the environment like the member of wildlife being presented.**
- **Utilising natural viewpoints, smells and sounds to help the user in solving the clues and or seeking their way through the track.**
- **Introduce natural viewpoints as a backdrop, for example bird markers resting in the trees, fish swimming in the streams, plants in their natural ecological settings.**
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- **Sourcing the material for the markers including from the local forest including fallen trees and fruit (this also offers opportunities for community involvement).**