Addressing the different information needs of diverse visitors to Arthur’s Pass National Park

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Abstract

The New Zealand landmass encompasses a vast diversity of wilderness areas, including fourteen national parks and other conservation lands. These natural environments attract a large number of domestic and international visitors, who consult a many different sources of on-line and printed information before and during their visit. However, these resources are usually designed to suit a generic visitor, and take no account of the different needs and expectation of diverse individuals. In this thesis, I investigate the use of information resources by different users groups as categorized by the Wilderness Perception Scaling (WPS) method. I begin with a review of relevant studies and statistics relating to domestic and international visitors’ experiences of the New Zealand wilderness. I then report on the results of my direct observations of visitors to three destinations, and I discuss the findings that I gathered from surveys that I conducted in two of these locations. This work includes pilot studies of two sites — the Catlins Conservation Park and the Orokonui Ecosanctuary — and a more detailed study of Arthur’s Pass National Park. Following a discussion of my observations and findings, I argue for a redesign of the Department of Conservation (DOC) Website, and I present sketch ideas for a new site that is informed by mobile media interface designs. This work hints at future possibilities for smartphone applications. I conclude that current technologies allow us to address the needs and expectations of different visitors to wilderness areas. Furthermore, I argue that mobile media can enable individuals to create and
share, as well as download and use, information resources that address their various and different requirements. I conclude that, if we want younger people to engage with wilderness environments, we should be using the technologies that they are using.
Dedication

I dedicate my thesis to God and myself, as together we have moved between moments of difficulty, to successfully complete this important stage of my personal growth. I also dedicate my research work to my parents, Marcelo and Estela; and my brother, Ivan, for their unconditional love and support during all my life projects.

Dedico mi tesis a Dios y a mi misma, ya que juntos nos hemos movido entre momentos de dificultad, para completar con éxito esta importante etapa de mi crecimiento personal. También dedico mi investigación a mis padres Marcelo y Estela, y a mi hermano Iván, por su amor incondicional y apoyo durante todos mis proyectos de vida.
Acknowledgements

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<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOC</td>
<td>Department of Conservation</td>
</tr>
<tr>
<td>FIT</td>
<td>Fully-Independent Travellers</td>
</tr>
<tr>
<td>IVA</td>
<td>International Visitors Arrival</td>
</tr>
<tr>
<td>NZTD</td>
<td>New Zealand Tourism Department</td>
</tr>
<tr>
<td>RTO</td>
<td>Regional Tourism Organisation</td>
</tr>
<tr>
<td>RVM</td>
<td>Regional Visitor Monitor</td>
</tr>
<tr>
<td>SIT</td>
<td>Semi-Independent Travellers</td>
</tr>
<tr>
<td>URL</td>
<td>Uniform Resource Locator</td>
</tr>
<tr>
<td>VFR</td>
<td>Visiting Friends and Relatives</td>
</tr>
<tr>
<td>WPS</td>
<td>Wilderness Perception Scaling</td>
</tr>
</tbody>
</table>
Chapter 1. Introduction

New Zealand is a country made up of a vast variety of plant and animal species as well as other natural features which together comprise a unique wilderness ecosystem known as the Conservation Estate. The conservation of these natural environments, including the national parks, and ensuring access to and enjoyment of these areas for visitors, is an important part of the mission of the Department of Conservation (DOC). National parks are the major sites of the Conservation Estate and include a diverse range of wilderness features, which are experienced by large numbers of international and domestic visitors.

International studies by Ho et al. (2005), Tinsley et al. (2002), Carr and Williams (1993), and Wolf and Zhang (2004) have explored visitors’ experiences in natural environments, taking into consideration their age, gender, cultural background, ethnicity, and race, among others characteristics of visitor groups. However, there has been little research focusing on the study of park experiences based on different perception of wilderness environments.

The Wilderness Perception Scaling (WPS) is a method that has been used in the New Zealand wilderness recreation context by Higham et al. (2001), Lovelock et al. (2010), and Klisley and Kearsley (1993). This method proposes a categorization of visitors according to their level of wilderness perception, from lower to higher degrees of attachment and involvement with wilderness. The WPS is comprised of
four groups: the Non-Purist, Neutralist Purist, Moderate Purist and Strong Purist.

Similarly, Klisley and Kearsley applied the WPS method adapted by Stankey in 1973 (Higham et al. 82), to identify the uses of wilderness areas in the Nelson, a South Island destination that is popular with visitors who are interested in wilderness locations.

Other researchers have explored the meanings and definitions of the term “wilderness” in the New Zealand context. According to Abbott, the meaning of this term is related to people’s values and perceptions, and therefore there is a wide variation among individual definitions (8-9). Abbott adds that the Department of Conservation uses the term "wilderness" when it refers to lands that are associated with remoteness, naturalness and solitude, and are protected management strategies. For the purpose of this research, I will use the term “wilderness” to mean New Zealand national parks, DOC conservation areas, and other natural, remote geographic locations in New Zealand.

The need to take into account the different expectations and preferences of visitors to New Zealand wilderness areas, as reflected in the WPS, is especially relevant for a country with a growing number of international visitors. In the case of visitors’ satisfaction with their experiences in wilderness areas such as a national park, these perceptions might be affected by their expectations and preferences towards natural features, amenities, outdoor activities, and the information consulted before and during their visits.
Currently, the same information is available for all groups of visitors, despite the diversity of their needs. The DOC Website, the pamphlets available in the iSite Visitors Centres, and the signs on tracks, are all designed using a one-size-fits-all approach; the information is not tailored to suit the different needs of different visitors. Furthermore, current information resources do not address visitors’ needs at different stages as they plan their trip, travel to the destination, and experience the site. In this thesis, I investigate how the information needs of diverse users groups can be addressed, especially at Arthur’s Pass National Park, which serves as the main site for my research. I also consider how these information resources can address the visitors’ needs at different stages of the experience.

In my investigation, I take into consideration the use of current technologies, which enables to approach the youngest segment of visitors who are more familiar with newer, mobile technologies, as well as more independent visitors who could benefit from accessing up-to-date information during the course of their visit. I do this through a design prototype that suggests how the DOC Website could be redesigned to allow users to access and share information in ways that are increasingly popular and expected.

The methodology of this thesis employs a mixture of qualitative and quantitative methods, as well as the development of a design prototype, in considering the information needs of different groups as differentiated by the WPS. Following this introduction (in chapter 2), I provide a review of relevant literature
about park visitors’ behaviours and attitudes towards nature and park features, which includes statistical information about nature-based tourism. In chapter 3, I report on studies that I conducted in the Catlins Conservation Park and at the Orokonui Ecosanctuary, which involved direct observation of visitors’ experiences, a review of the information available at the site, and the information resources that were used by visitors during their journey. I also surveyed visitors to gain information about their planning and their expectations of their visit, pre-visit information that they accessed, resources that they consulted on-site, and their personal inventory.

During these pilot studies, I discovered the importance that printed information played during the planning of the visit, the drive to the site, and the visit itself. For this reason, I focused my major research effort in addressing the different information needs of diverse user groups that visit Arthur’s Pass National Park, using the WPS method. This investigation comprises chapter 4. I chose this popular national park in the South Island in order to achieve a better understanding of visitors’ expectations and experiences in a major wilderness site, specifically regarding the use of information resources that contribute to pre-visit knowledge and their experiences on-site. I conducted a survey that was designed to be compatible with the WPS method.

In chapter 5, I propose the design of a parallel Website for Arthur’s Pass that responds to the need for interactive, engaging, and up-to-date information. I also
propose that it would be advantageous to connect this information to external social networking sites. I considered the need for information on alternative activities, the usefulness of large scale detailed maps, as well as the visitors’ needs for sharing their feedback, recommendations, and stories of their overall experience in Arthur’s Pass.

Finally, I suggest that the Website could include the ability to integrate newer technologies and interface design strategies similar to those commonly seen on smartphones and other mobile media. I also discuss how future designers could design applications for mobile devices that could address visitors’ needs for location-based information, and their desire share their experiences in real time with others during the course of their visit.

My hope is that the findings of this research will contribute to a richer understanding of visitors’ information needs, preferences and expectations, and that it will inform future DOC initiatives to improve the experience of visitors to wilderness areas in New Zealand.
Chapter 2. Visitors’ experiences in wilderness areas

In the literature review, I examine published research in three general areas. Firstly, I discuss relevant international work that deals with the relationship between natural environments including national parks, and nature-based recreation, which involves patterns of park use, perceived benefits, and the people who use the parks. Secondly, I investigate research and published information about the Department of Conservation (DOC), as well as the national parks in New Zealand and the way they are used by a diversity of users, both international and New Zealanders visitors. I also present statistics that provide qualitative information about visitors to New Zealand. Thirdly, I discuss the Wilderness Perception Scaling (WPS) method, (described in more detail below) which was adapted by Stankey (1973), and I have chosen to use in my research.

2.1 International comparison for patterns of use in national parks

New Zealand has unique natural protected areas and a diverse range of visitors in search of a nature-based experience. In order to understand ways of interaction, enjoyment and engagement among different groups of park visitors in wilderness areas, it is important to review prior studies in the field. By consulting research from the United States and other countries that, like New Zealand, have highly developed conservation areas and national parks, we can gain a better understanding of different ways of categorizing visitors in order to explore their experiences.
Ho et al. (2005), Tinsley et al. (2002), Carr and Williams (1993), and Wolf and Zhang (2004), explore the perceived benefits, attitudes and outdoor experiences of park visitors, as well as the related issue of visitor categorization. The work of Ho et al. is useful for the analysis of the visitation behaviours of residents and visitors of urban parks and open spaces, considering gender and ethnic groups (289, 294). The main contribution of Tinsley et al., in terms of its applicability to my research, is regarding the psychosocial benefits that older urban park users received from the activities they engaged in during their visits, as well as the possible influence of the ethnic heritage in this pattern of use (199-200, 215). Carr and Williams examine prior studies about the under-participation of ethnic minorities in outdoor recreation in the forest (22-24). Wolf and Zhang explore attitudes towards nature, mainly marine life, and the behaviours of visitors to beaches, with a focus on cultural diversity as well as race (414-415).

The research by Ho et al. involves the exploration of preferences, perceived benefits, and participation by male and female park users to various park features, such as recreational facilities, traditional park landscapes, wildlife, water amenities, and logistic (289, 294). Their study does not show significant differences between male and female park users. In general, both genders considered the recreational facilities, water amenities and wildlife in a park to be important because they provide significant benefits, such as recreation, stress reduction, physical exercise and health related opportunities, socialization, and the chance to observe and enjoy
nature (281, 283, 298-299). The similarities on preferences and experiences both genders were also a common scenario observed on the sites investigated during my thesis, as I discuss in chapters 3 and 4.

Tinsley et al. mention that the most relevant psychosocial benefit of outdoor activities reported by park users is the immediate sense of personal pleasure while engaging in an activity that does not require complicated planning and a long-term commitment. Additional benefits are the opportunity to get physical exercise and to have a break from daily routines and obligations (211, 215). In addition, Carr and Williams find that different ethnic groups had similar reasons for visiting a forest, which include enjoying the place itself, spending time with family/friends, and the use of the area for various activities (22-24, 29-34). These findings are similar to results found in New Zealand, including the sites I researched, as I discuss in section 2.6 and chapters 3 and 4.

Ho et al. detected some differences in park users’ participation according to their group size. Normally, large groups of visitors prefer more developed areas and facilities, while individuals or couples preferred more remote areas. For instance, if a group of individuals is interested in team sport, they are more likely to choose parks with well-developed facilities, while people who are more inclined to engage in socially-oriented activities are more likely to visit barbeque areas in a park. Users who prefer to engage in individual activities are more likely to enjoy wildland activities in remote natural areas (295, 300). Visitors to New Zealand show
similarities towards some of those preferences and behaviours, according to the statistics I show in section 2.4. This suggests that it might not be necessary to analyze expectations and behaviors of visitors according to gender and group size in my research. However, new insights may be gained by exploring how different perceptions of wilderness (as categorized in the WPS method I discuss in section 2.3) affect expectations and engagement with New Zealand wilderness areas such as national parks.

The analysis of the patterns of park use by Tinsley et al. chooses the exploration of visitor’s ethnicity and ethnic heritage instead of race. They justify their methodological criteria due to ethnicity and ethnic heritage which can be shared by individuals of the same race, forming a group with common experiences and characteristics, such as language, customs and history (199-200, 215). Tinsley et al. also include the analysis of intra-ethnic groups as important criteria for research suggested by Carr and Williams.

Carr and Williams refer to the three dimensions of intra-ethnic variability, identified by prior studies, which influence outdoor behaviours: ancestral group membership, generational status and acculturation. Ancestral group membership refers to the identification of the individual’s descent and country of origin. Generational status is related to how people expose themselves to the culture of the host country. Acculturation is about how people adapt the host country’s traits in place of their traditional cultural traits. For a start, Carr and Williams find that the
behaviours of Hispanic groups vary depending on their ancestral origin. Respondents of Mexican ancestry presented higher levels of acculturation than those with Central American ancestry. Also, while examining the relationship between ancestry, generational status and social group composition, Carr and Williams discovered differences between ethnic group behaviours. Anglos are more likely to visit a forest with friends only. By contrast, Hispanics with Mexican ancestry are more likely to have the companion of immediate or extended family, while Hispanics with Central American descent prefer the company of organized groups and their godfathers and godmothers. Based on the results of their research, Carr and Williams criticize the mistaken assumption of ethnic groups as homogeneous groups, as well as the omission of intra-ethnic groups and their cultural origin, in studies about leisure behaviours (22-24, 29-34).

Tinsley et al. observe important patterns of park use in intra-ethnic groups with American park visitors. For example, Caucasians and African-Americans are the heaviest users of parks in contrast to Hispanic-Americans and Asians, who prefer to use footpaths and bicycle tracks. These authors also highlight that Caucasians are more likely to visit a park by themselves while African-Americans prefer the companionship of friends. In contrast, Asian-Americans and Hispanic-Americans prefer the company of a large family group. It indicates that, while for some intra-ethnic groups the cultural emphasis is on individual experiences, for others the family unit or the interaction with large groups of friends is an important aspect of
their experience (215-216).

According to statistics shown in section 2.4, international visitors including migrants who arrive to New Zealand each year come mainly from Asian and European countries, while Hispanic and African visitors represent a minority. For this reason, the inclusion of other ethnicities in my thesis’ methodology, such as Hispanic or African, is not relevant. In the New Zealand context, we should not use generalizations when considering Caucasian visitors from Europe or North America, since the ancestral group membership, generational status and acculturation of individuals might vary from country to country, and within countries. However, an investigation of the use of national parks in New Zealand according to ethnic origin, for example, Māori vs. Pakeha, is beyond the scope of my thesis. For my research, the statistical data in section 2.4 is useful, because it categories international visitors by country of origin, rather than by ethnicity or race.

I also include the revision of the study of Wolf and Zhang in this literature review. These researchers comment that in Los Angeles, where beaches are popular and highly visited by a large and diverse population, there are no studies focused on beach recreation that considered the concept of wilderness. By contrast, they find much research relating to wild nature in sites such as national parks and other large green areas. Wolf and Zhang investigate the perceived benefits and the attitudes towards nature by visitors to California’s beaches, specifically, the relationship between cultural diversity, attitudes towards marine life and frequency of beach use
by using a ‘Model of Beach Use’ they created. Their model tests the viability of four hypotheses relating to ethnicity, assimilation, marginality and attitudes towards nature. They discover that Whites, and more assimilated ethnic groups, are more likely to engage in beach recreation showing high rates of beach visits, excepting the ones who belong to lower socio-economic groups. They also highlight that those with a more bio-centric attitude towards nature or those with strong aesthetic attitudes might show higher rates of beach visits as well as value outdoor wilderness experiences more than other visitors. Furthermore, factors such as age, income or proximity to the beach might influence the frequency of beach visits and quality of engagement with marine environments. For instance, these researchers find that some people with greater income prefer to pay for other types of recreation instead of visiting a free public space such as the beach (414-415, 420-421, 426, 437).

In a country like New Zealand, with numerous beaches and marine reserves, the exploration of behaviours and attitudes toward the marine environment could be a relevant component to consider in future studies of wilderness areas that include marine environments and beaches. Arthur’s Pass National Park does not contain a marine environment. It was one reason why I visited the Catlins Conservation Park, which is popular for its beaches, as part of my initial research.
2.2 National Parks and Department of Conservation in New Zealand

New Zealand proudly preserves fourteen national parks and other conservation lands which in total constitute the Conservation Estate, and are distributed between the North and South Island. Each national park holds a diversity of wilderness features, ranging from alpine peaks and glaciers, to forests and beaches. The uniqueness of flora and fauna, landscapes and wildlife experiences provides a spectacular outdoor wilderness experience for visitors.

The wilderness areas in New Zealand as well as their indigenous resources are protected under a range of legislations such as: the National Parks Act 1980, the Reserves Act 1977, and the Conservation Act 1987. The DOC is one of the organizations responsible for administering these legislations in New Zealand’s natural areas. In general, these areas cannot have any human intervention, such as construction of buildings, tracks or access with vehicles (Molloy 12).

The role of the DOC is to “manage natural and historic heritage assets for the greatest benefit and enjoyment of all New Zealanders, by conserving, advocating and promoting natural and historic heritage so that its values are passed on undiminished to future generations” (DOC Website: “Mission and Vision”).

Each year, national parks in New Zealand receive a wide variety and number of international and domestic visitors. These visitors hold diverse expectations and attitudes towards the features and nature-based activities of the park as well as
different ways of engaging with those. The following sections review key facts about international and domestic visitors, and their experience with nature-based tourism. Additionally, the literature includes the revision of studies that explore perceptions and experiences of visitors to New Zealand’s wilderness.

2.3 Wilderness experiences and the Wilderness Perception Scaling

In their analysis about wilderness perceptions, Klisley and Kearsley refer to the contributions of prior studies about the definition of wilderness. While the general public and trampers could see wilderness as an unspoiled and free environment where people can experience the beauty of the nature, other people perceived wilderness as sacred, pure and exciting (204-205).

The perception of wilderness is also taken into account in the work of Higham et al., which involves domestic and international backcountry users as well as the general public, in a New Zealand wilderness recreation context (82). These authors explain that the definition of wilderness partially depends of the state of mind, since it is a subtle concept that involves the perception of people. These perceptions are affected by people’s values, expectations, knowledge and experiences about these public spaces. Higham et al. suggest the clearest conceptions of wilderness given by bio-centric visitors emphasises in the maintenance of natural systems, at the expense of recreational and other development, if necessary. These researchers also discuss studies about wilderness perceptions and the ways people look for places they
believe can offer a wilderness experience. They point out wilderness is found in most of the New Zealand Conservation Estate’s areas, to which only a small proportion has unrestricted access and is used by diverse groups of visitors (84, 86).

As I discuss in chapter 2.1, prior investigations have analyzed patterns of natural environments usage by visitors categorized by gender, age or ethnicity, as well as travel preferences or travel companions in the selection of participants. In New Zealand, new insights could be gained by exploring expectations and engagements with wilderness areas by using the alternative Wilderness Perception Scaling (WPS) method as in the study of Klisley and Kearsley I discuss below.

The WPS is a method used in studies on visitor groups’ perceptions, attitudes, and behaviours towards nature-based activities and the use of conservation wilderness areas. Klisley and Kearsley have explored patterns of use of wilderness areas in Nelson, a popular tourist region of New Zealand’s South Island known for its wilderness areas. In their investigation of the use of wilderness areas by backcountry users and the general public, they used the WPS method (204-205).

The WPS divides visitors into four categories according to their perceptions of wilderness areas. The categories, from lower to stronger degrees of attachment and involvement with wilderness are: Non-Purist, Moderate Purist, Neutralist Purist, and Strong Purist. The indicators of the WPS that are used for measuring wilderness perceptions include artificialism (or the influence of human impact), remoteness,
naturalness and solitude (see table 2.1) (Klisley and Kearsley 203, 210).

Table 2.1. “Indicators from Wilderness Perception Scaling used to denote properties of wilderness and their perceptions into the four categories of purism scale”

<table>
<thead>
<tr>
<th>INDICATORS</th>
<th>PURISM SCALE ITEM</th>
<th>NON-PURIST</th>
<th>NEUTRALIST</th>
<th>MODERATE</th>
<th>PURIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTIFACTUALISM</td>
<td>Little human impact</td>
<td>+</td>
<td></td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Developed campsites</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Maintained tracks</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Bridges/ walk wires</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Maintained huts/shelters</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Hydroelectric development</td>
<td>/</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Commercial mining</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Commercial recreation</td>
<td>+</td>
<td>/</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Logging</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>REMOTENESS</td>
<td>Road access</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Motorized travel</td>
<td>/</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Remoteness</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Hunting</td>
<td>+</td>
<td>+</td>
<td>/</td>
<td>-</td>
</tr>
<tr>
<td>NATURALNESS</td>
<td>Stocking Exotics</td>
<td>/</td>
<td>/</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Large size</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>SOLITUDE</td>
<td>Solitude</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

(Klisley and Kearsley 211)

Like Nelson, Arthur’s Pass National Park is surrounded by extensive wilderness areas, which have remained untouched, undeveloped and unexploited. This popular tourist area in the South Island offers international and domestic visitors the opportunity for a nature-based experience in a wilderness setting. Therefore, a study of this site might gain useful data by using the WPS method to investigate how diverse visitors engage with this area of the Conservation Estate.
In terms of perception of wilderness, Klisley and Kearsley point out that the results of their study show similarities with prior studies that also used the WPS method. For example, they discover that while the Strong Purist group rejects the presence of human influence in wilderness areas, other Purist groups show an acceptance of certain facilities, such as walking tracks, huts and swing bridges, but not of others, like roads, airstrips and commercial facilities. They also note that respondents commented on their increasing amount of leisure time, which suggests that they may be able to visit wilderness areas more frequently, and for longer periods (204-205, 210-213).

During my investigation, I gathered information on activities, taken by visitors during their leisure time spent in nature-based recreation areas. These findings, which I present in section 2.4 and chapters 3 and 4, could contribute in the development of adequate strategies to engage visitors during their wilderness experiences in areas of the New Zealand’s Conservation Estate.

In order to gain a better understanding of the WPS indicators, I will compare other positive and negative wilderness perceptions presented in Table 2.1. The four Purists groups share positive perceptions about little human impact, remoteness, and large size in wilderness areas. By contrast, they all have a negative perception about commercial mining and logging. Most of the Purist groups consider the presence of well-maintained tracks, huts/shelters and bridges as well as the road access to wilderness areas as positive. In general, Strong Purists report negative
perceptions for most of the components related to artifactualism and remoteness, while Non-Purists present positive perceptions for most of them. Non-Purists have a negative perception about solitude, while all other Purist groups see this as positive (Klisley and Kearsley 211).

Klisley and Kearsley also suggest that modern tourists came to New Zealand looking for an adventure in the natural world rather than the satisfaction of a sedentary activity, such as simply observing scenery. Similarly, the New Zealand Tourism Department (NZTD) has published reports on the increasing number of “green visitors” in New Zealand’s natural areas, who have social and environmental values that lead them to avoid the infrastructure of mass tourism (24). During my research, I observed some visitors to more remote wilderness areas experiencing the places by themselves, with the assistance of mobile devices such as a GPS. In chapters 3 and 4, I point out important findings on preferences for information consulted and how they influence in visitor’ wilderness experiences.

Higham et al. mention the apparent paradox in the concept of managing wilderness areas. It involves the control of nature to balance the social and biological demands on and uses of natural areas. Such control may result in the loss of the essential quality of naturalness, which is highly valued by many wilderness users. In contrast, the bio-centric approach to wilderness emphasizes the maintenance of natural systems as a primary goal, if necessary, at the expense of recreational and other development. In New Zealand, as in North America, wilderness management
has a bio-centric emphasis (90). For organizations involved in the management and protection of the Conservation Estate, such as the DOC and the NZTD, it is highly important to develop tourist strategies that minimize the environmental impact while maximizing the satisfaction of all visitor groups.

In this thesis, I will consider strategies to tailor information to the needs and expectations of visitor groups to Arthur’s Pass National Park, using the four-categories of the WPS as well as data collected about the visitors’ experiences. The findings of my investigation will contribute to the body of research that informs work by DOC and other organizations that are developing strategies to satisfy the diverse needs of visitors for information relating to wilderness areas.

2.4 Visitors pursuing nature-based tourism in New Zealand

Quantitative data published by Statistics New Zealand provides a useful basis for an exploration of the expectations and experiences of visitors to New Zealand’s national parks. Statistics New Zealand is “a government department and New Zealand’s national statistical office […] and is the country’s major source of official statistics” (Statistics New Zealand Website: “About Us”). The Statistics New Zealand Website is the source of the majority of the quantitative data that is relevant to this thesis both directly and indirectly. The comparison of key statistical data with the findings of prior studies on park usage, perceived benefits, and attitudes towards nature, has enabled me to develop a framework and a way of categorizing park
visitors that best suits the aims of this work. The data on international and domestic visitors to New Zealand available in the Statistics New Zealand Website is also presented in a more simplified format in the Tourism Strategy Group Website.

The Tourism Strategy Group Website also contains reports and information sourced from the “Regional Visitor Monitor” (RVM) online data. The RVM online data collects a range of visitor information, including but not limited to profile, planning and booking, activities, accommodation, and expectations (Tourism Strategy Group Website: “Regional Visitor Monitor”). I discuss below the relevant statistics in three sections that cover international visitors, domestic tourism, and New Zealand nature-based tourism.

2.4.1 International visitors to New Zealand

Unless otherwise specified, the statistics I present in this section show trends during the period 1999 - 2008. By the end of 2008, New Zealand received 2.45 million international visitors, which represents an increase of 52% compared to 1999. The most important reasons for travelling were “Visiting Friends and Relatives” (VFR) (81%), followed by holidays (48%) and business (see fig. 2.1). Of the total number of international visitors, 52% were males and 48% were female. Females slightly outnumbered male visitors in the holiday and VFR segments.
Of the total of visitors who came for holidays, its majority were first time visitors to New Zealand. It was also reported a trend for repeat visits (54%), especially from countries with traditional links with New Zealand, such as Australia and the UK. The VFR was the group that showed the highest tendency to repeat visits (see fig. 2.2) (Tourism Strategy Group international 1).

According to the results showed above, a sizable proportion of first time visitors may have a considerable time frame and might be interested in visiting a national park. In addition, the similarity in the percentage of visits from both genders means that visitor experiences should cater equally for the interests of both males and females. If the total number of visitors is increasing, this could put pressure on national parks and suggests that we need to find ways of managing the increasing numbers. Finally, it is worth considering ways of encouraging the VFR
segment to engage with the Conservation Estate, since it is the largest group that makes repeat visits.

![Chart showing repeat visits by international visitors, 2008](image)

*Figure 2.2. “Repeat visits by international visitors, 2008”*

(Tourism Strategy Group international 1)

Seventy-seven percent of the total international visitors came from the top eight countries including Australia (40%), United Kingdom (11.6%), United States (USA) (8.7%), China (4.6%), Japan (4.2%), South Korea (3.2%), Germany (2.5%), and Canada (2.2%) (see fig. 2.3) (Tourism Strategy Group international 2).

We can assume from the countries of origin that the majority of international visitors are English-speakers, which means information in future design interventions could be provided in English as the main language.
Figure 2.3. “Key international visitors markets, 2004 and 2008”

(Tourism Strategy Group international 2)

Four age groups provide 70% of the total international arrivals: 20-29 years (18%), 30-39 years (18%), 40-49 years (17%) and 50-59 years (17%). The statistics mentioned a rate of growth in those aged 60-69 years, which suggests that older age travellers will become more significant for the New Zealand market in the future (Tourism Strategy Group international 3).

If older visitors are a growing number, we need to be aware of this when designing information resources. Older visitors are more likely to participate in passive activities, so information about suitable amenities, alternative attractions and low-effort activities should be provided. Factors such as sizes of font in printed and online information as well as familiarity with online resources should be considered in the future design of information resources.
The average international visitor’s length of stay was 20.9 days. Visitors spent NZ$5.95 billion in New Zealand, excluding cost of international airfares. The average expenditure per person was NZ$2,681. However, the average spent for the holiday segment was higher at NZ$3,027 (Tourism Strategy Group international 3).

The tendency for the holiday segment to spend more money suggests that they might be interested to participate in some of the most expensive tourist activities, in more than one visit, which could include nature-based activities in wilderness areas.

For the holidays and VFR segments, the most popular months to travel to New Zealand were December-March. Canterbury, Queenstown, Fiordland, and the West Coast were the most popular large centres visited in the South Island, where tourists visited one or more hours, or stay overnight. These sites are included in the “Regional Tourism Organisation” (RTO) regions (see fig. 2.4) (Tourism Strategy Group international 2). The Arthur’s Pass and Aoraki/Mount Cook National Parks are located in Canterbury.

Knowing when and where visitors are likely to come to New Zealand contributes in the planning of future interventions that involve the participation of international visitors on a particular site.
At least one million visitors were engaged in outdoor activities, with walking/trekking, land-based sightseeing and scenic/natural attractions, being the most popular (see fig. 2.5). Visitors that belong to the VFR group preferred to engage in a small range of activities and attractions, while holiday visitors undertake a wider range of options (Tourism Strategy Group international 4). This reveals that all segments have a high rate of participation in nature-based activities, and therefore might be interested in visiting a DOC national park or other natural environment.
Some visitors were Semi-Independent Travellers (SIT), which means they like to pre-book only a part of their itinerary while arranging the other part as they travel. This segment, together with the Fully-Independent Travellers (FIT), made up 70% of holiday arrivals and 84% of total international arrivals. Visitors in a group or packaged tours formed 30% of holiday arrivals and 16% of total international arrivals (Tourism Strategy Group international 3).
For most travellers, a sense of adventure, flexibility and, perhaps, surprise while visiting, is important. For instance, visitors who prefer the comfort of a planned itinerary from a packaged tour might also enjoy the adventure of engaging in nature-based activities in a wilderness area. For this reason, the consultation of pre-visit information is important, so that such activities are known about, and time to accommodate them can be planned. There is a wide range of preferences that need to be identified in order to address the needs of diverse visitors. The use of the WPS method will assist in categorizing different groups and their different needs.

2.4.2 Domestic tourism by New Zealand residents

In this section I present statistics of domestic travellers, who are residents who travel within New Zealand for less than one year and spend money outside of their normal routine. Unless otherwise specified, these statistics show trends during the period 2004 - 2008 (Tourism Strategy Group domestic 1).

By the end of 2009, domestic visitors made 43.4 million domestic trips, which represent a decrease of 1.7% in comparison to 2004. From the total of domestic visitors, 51% were male and 49% were female. A holiday was the main reason for day (41%) and overnight (42%) trips, followed by “Visiting Friends and Relatives” (VFR) (see fig. 2.6) (Tourism Strategy Group domestic 1,3).
For both, international and domestic visitors, one of the main purposes for visiting New Zealand was for a holiday. This means that there is a large potential market of visitors to wilderness areas. As with international visitors, the statistics also shows similarities in the percentages of male and female visitors, which suggests that expectations, preferences and experiences during visits are shared in almost equal percentages among genders. Therefore, it is not relevant to analyse visitors by gender during my research, but using other methods such as the WPS.

Domestic visitors took an average number of ten trips. Figure 2.7 shows that in the South Island, domestic tourists from Canterbury and Otago tended to take more trips (Tourism Strategy Group domestic 2). If I choose to investigate a national park located in one of those regions, I would expect to find visitors from those areas, considering that people trend to visit sites closest to their place of residence.
The statistics break down the ages of domestic travellers into five groups: 15-24 years (18%), 25-34 years (16%), 35-40 years (20%), 45-54 years (20%), and 55-64 years (14%) (Tourism Strategy Group domestic 3). The percentage of the ‘55-64 years’ group is the lowest, and matches with the lowest percentage given for a similar age group in the international segment, as I comment in section 2.4.2.

In section 2.1, I mention that Tinsley et al. outline how older park visitors have more leisure time available to engage with passive outdoor activities such as photography or sightseeing. However, the percentages above present a low tendency of the oldest aged group to visit touristic areas. The understanding of why
older domestic visitor are not as engaged as other age-groups with the New Zealand’s tourist areas, is beyond the scope of my research.

By the end of 2008, domestic visitors spent in New Zealand a total of NZ$8.06 billion, which represents an increase of 12% in comparison to 2004. The average expenditure per domestic trip for the holiday segment was slightly higher NZ$176 compared with the VFR segment (Tourism Strategy Group domestic 3).

Since domestic travellers make multiple trips and spend more money per day than international visitors, I recommend we should not underestimate the importance of domestic visitors to the local economy and the usage of natural environments. Similarly, due to its important participation in tourism, I suggest that VFR segment be approached with more specific information about New Zealand’s natural features and alternative ways to experience them as they might be interested in performing nature-based recreation in company of familiar people.

For domestic visitors, the most popular months for traveling were December-March. Canterbury was the most preferred “Regional Tourism Organisation” (RTO) region visited in the South Island, as well as for international visitors. The Arthur’s Pass and Aoraki/Mount Cook National Parks are located in this region (see fig. 2.8) (Tourism Strategy Group domestic 2-3).
Domestic visitors engaged with a wide range of attractions and activities. The most popular were sightseeing, walking/trekking, fishing, swimming, volcanic/geothermal activities and visiting museums and galleries. Some visitors travelled with family/friends (48%), by themselves (25%), and with a partner/spouse (19%). Others travelled with a business associate, a tour/special interest group or school/student group (Tourism Strategy Group domestic 3-4).

The percentages suggest that most visitors have a high rate of participation in nature-based activities, which might include visiting a national park. Also, the value of sharing with other visitors while traveling is important. It is worth considering this value in the design of information to be used while visiting wilderness areas.
2.4.3 Nature-based tourism in New Zealand

The statistics I present in this section show trends in New Zealand nature-based tourism and propensity to participate in nature-based activities during 2008. Nature-based tourism involves engagement in outdoor activities by international and domestic tourists in New Zealand’s natural environments. The data below excludes those local residents who participated in nature-based activities in their area of residence (Tourism Strategy Group nature-based 1).

In this section, I also highlight the recent works of Lovelock et al. about the participation of ethnic minorities and recent migrants in nature-based recreation in New Zealand. These researchers detect the need to create New Zealand comparable data about the participation rates for both of these groups, in keeping with the North-American studies I mention in section 2.1. Lovelock et al. investigate four aspects of recreational participation, which are frequency of use, nature of recreational party, usage of natural areas and their features, and benefits of visiting natural areas. These aspects were also considered in the statistical data I present in this section (recent migrants 48-49).

In 2008, 2.0 million tourists who participated in nature-based activities took 11.1 million nature-based trips (considering that tourists can take more than one trip per year). Of the total trips, 1.6 million (70%) were taken by internationals and 9.6 million (22%) by domestics, who came to New Zealand for holidays (64%) and VFR (25%). These groups showed the highest rates of propensity to participate in nature-
based activities (see fig. 2.9) (Tourism Strategy Group nature-based 3).

In general, during 2004-2008, participation of domestic visitors in nature-based activities increased gradually while for international visitors it remained stable. Levels of participation of males and females were the same for international visitors, however, for domestic tourists, females registered a lower level of participation than males (Tourism Strategy Group nature-based 1, 3).

This information suggests that those male nature-based tourists who prefer to engage in nature-based activities might be more likely to experience wilderness areas by themselves, than female tourists. More than half of the total number of nature-based tourists is visiting on holidays, with a higher propensity to participate in nature-based activities. This suggests that a sizable proportion may be interested

Figure 2.9. “Nature-based tourists by travel purpose, 2008”

(Tourism Strategy Group nature-based 3)
in engaging with a natural environment such as a national park. In addition, the similarity in the percentages of genders of nature-based tourists means that visitor experiences should cater equally for the interests of both male and female tourists.

International nature-based tourists came mainly from Australia (33%), United Kingdom (14%) and USA (10%) (see fig. 2.10). Visitors from China, Germany, Korea, United Kingdom, Japan, Canada and United States registered a propensity of 80% or more to experience nature-based activities (see fig. 2.11). Australians were excluding from the list, because their main purposes for visiting New Zealand was for business and VFR (Tourism Strategy Group nature-based 8).

![Figure 2.10. “Origin of international nature-based tourists, 2008”](Tourism Strategy Group nature-based 2)
The main regions of origin of nature-based domestic visitors were Auckland (31%), Waikato (17%), and Canterbury (12%) (see fig. 2.12) (Tourism Strategy Group nature-based 2).

If I choose to investigate a national park usage, I would expect to find visitors from those areas, which might include New Zealand born, as well as residents and new migrants. The statistics do not show data on participation in nature-based activities considering origin of domestic nature-based visitors.
The two highest levels of age groups for international nature-based visitors were 25-34 years (22%), 55-64 years (19%), and 45-54 years (18%). On the domestic segment, the higher rates of participation pointed out to visitors who were 15-24 years (22%) and 35-44 years (22%) (Tourism Strategy Group nature-based 3). It is important to consider the needs of different visitor’s age groups when designing future information devices.

Most international tourists participating in nature-based activities travelled alone (34%) or in pairs (40%). The domestic segment tended to travel in groups (86%) of two or more, either with family (36%), friends (18%) or a partner/spouse (17%). In both, international and domestic segments, people travelling in groups showed the highest propensity to participate in nature-based activities (see fig. 2.13) (Tourism Strategy Group Website nature-based 3).
Ho et al. attribute the park users preferences in participation of activities to the differences in their group size. As I outline in section 2.1, these researchers argue that large groups of visitors preferred experiencing more developed areas and facilities, which might include nature-based experiences, while individuals or couples were more likely to enjoy wild land activities in remote natural settings.

![Figure 2.13. Nature-based tourists by group size, 2008](image)

(Tourism Strategy Group nature-based 3)

Even though the analysis of visitors according to their ethnicity or migrant status is beyond the scope of my research, I consider important the revision of the investigation by Lovelock et al. in this field. Firstly, Lovelock et al. discuss the nature of recreational parties accompanying participants in New Zealand nature-based recreation, considering the migrant group. Similarly to the data presented above, they mentioned that most New Zealander-born prefer solo recreation or the company
of others New Zealand born, while new migrants prefer the company of other migrants during their visits, avoiding solo recreation (recent migrants 48-49).

Considering the WPS categories, New Zealand born who enjoy solo recreation, might belong to the Moderate and Strong Purist groups, and domestic migrants might belong to the Non-Purist and Neutralist Purist groups, who preferred the companion of large size groups. The use of the WPS as the method for future research work on how domestics socialize with others while experiencing nature-based recreation in wilderness areas might approach relevant understanding of those minorities who are also part of the New Zealand’s population.

In 2008, the average length of stay was 24 nights per international nature-based tourist. The likelihood of participating in nature-based activities increased with the length of stay and the expenditure during the trip. The average expenditure per nature-based international visitors was NZ$3040, excluding the cost of international airfares (Tourism Strategy Group nature-based 2). The length of stay and the average expenditure of international nature-based visitors was higher in comparison with the trends registered by both, general international and domestic visitors, as I refer to in sections 2.4.1 and 2.4.2.

The tendency of international nature-based tourists to spend more time and money in their trips than domestics suggests that they might be more likely to engage with natural environments through repeated visits. However, we cannot
underestimate the importance of the participation in nature-based activities for the local economy, since domestics are more likely to repeat several times their wilderness experiences due to living here.

Lovelock et al. also discuss the frequency of nature-based recreation as influenced by ethnicity group. According to their research, while the largest group of New Zealand born respondents and settled migrants participated in nature-based recreation three times per month, new migrants participated one to two times per month. Lovelock et al. also mention how participation of migrants in New Zealand wilderness is affected by their lower income in comparison to New Zealand born (recent migrants 48-50).

If I choose to investigate national park usage, I would expect to find more New Zealand born visitors than New Zealand migrants in the domestic segment approached. Also, considering that the level of expenditure could increase the likelihood of participation in nature-based activities, I assume that migrants and ethnic minorities would be less likely to participate in nature-based recreation than New Zealand born visitors. However, many of the natural recreation areas in New Zealand are located on conservation lands. In most cases, these areas have freely accessible, well-maintained road access, and are located near residential areas. I suggest that future work includes strategies to inform minorities about the features of their host country. Although this is beyond the scope of my thesis, I consider this in my design interventions.
Figure 2.14 outlines that Auckland was the top RTO’s region visited by tourists who undertook nature-based activities. However, the statistics show a lower rating of participation in nature-based activities for Auckland (31%), which confirms that this region is mainly transited due to the airport connections instead of as a site for engagement with nature. In the South Island, the four top RTO’s regions visited by internationals undertaking nature-based activities were Canterbury, Fiordland, and West Coast; while for domestics they were Northland, Coromandel, Bay of Plenty, and Canterbury (Tourism Strategy Group nature-based 1-2).

![Graph of nature-based tourists by RTO](image)

*Figure 2.14. “Main RTOs where international and domestic tourist undertook nature-based activities, 2008”*  
(Tourism Strategy Group nature-based 2)

Canterbury was one of the most popular RTO’s regions for overall tourists. An
investigation in Arthur’s Pass National Park, which is located in this region, might embrace visitors who are more likely to participate in nature-based recreation.

Most international tourists participating in nature-based activities travelled alone (34%) or in pairs. The domestic segment tended to travel in groups (86%) of two or more, either with family (36%), friends (18%) or a partner/spouse (17%). In both, international and domestic segments, people travelling in groups showed the highest propensity to participate in nature-based activities (see fig. 2.15) (Tourism Strategy Group Website nature-based 3).

Going to beaches was the most popular nature-based activity undertaken by both nature-based tourists groups, which was followed by: scenic boat cruise, lakes, hot pools, scenic drive, bush walks (½ hour and ½ day), sightseeing, national parks, trekking/tramping, and waterfalls. International visitors enjoyed observing penguins, dolphins, and seals, more than domestics. Overall, the participation rates of internationals were much higher than that shown by domestics (see Appendix C) (Tourism Strategy Group Website nature-based 1-2).

From the information presented above, it is important to consider in my thesis the exploration of visitors’ preferences and experiences while visiting a marine environment of the New Zealand’s Conservation Estate, as a start point for my researching of wilderness perceptions.
Some international nature-based visitors were Fully-Independent Travellers (FIT) (39%); followed by Semi-Independent Travellers (SIT) (39%), package travellers (11%) and tour groups (10%). The FIT and SIT segments showed a lower propensity to participate in nature-based activities (60% and 73% respectively) in comparison with package travellers (89%) and tour groups (98%) segments (Tourism Strategy Group nature-based 3). The low propensity of participation for international visitor, which may involve engagement with DOC conservation areas, might be related to the lack of specific information visitors reviewed before traveling, gathered from travel agencies, visitor centres, or other resources.

By examining accommodation preferences, the statistics show that most international nature-based tourists stayed in a hotel. It was followed by private accommodation, motels, and backpackers. The lowest rating for this category was for DOC sites (see fig. 2.16) (Tourism Strategy Group nature-based 4).
Figure 2.16. “Accommodation used by international nature-based tourists, 2008”

(Tourism Strategy Group nature-based 4)

The wide range of accommodation choices for the international nature-based segment, suggests its appeal and flexibility for experiencing nature-based activities. The preferences for resting in a comfortable accommodation facility instead of a DOC hut or campsite, might suggest most visitors who undertake nature-based activities belong to the Non-Purist and Neutralist groups. The statistics do not show data on travel styles and accommodation preferences for domestics.

In Appendix D, I present a map using important data from the domestic, international, and nature-based tourism market I discuss in section 2.1. An analysis of this map aids in the understanding of visitors’ preferences and general need for information.
2.5 New Zealand context: Pre-visit information consulted online

According to the RVM online data, in the year ending June 2010, international visitors found information about New Zealand’s regions before their arriving, mainly from guide or travel books (69%), Websites (49%), family and friends (48%), and iSite Visitor Centre (25%) (see Appendix E) (Tourism Strategy Group Website: Where international visitors found information before arrival). Domestic visitors found information from Websites (64%), family and friends (39%), guide or travel book (28%), and iSite Visitor Centre (17%) (see Appendix E1) (Tourism Strategy Group Website: Where domestic visitors found information before arrival).

Overall, Websites and guides or travel books are the two information resources most reviewed by domestic and international visitors during the planning of their trips to New Zealand’s regions. Websites provide up-to-date information about any destination around the world, while guide or travel books are mobile resources, which visitors usually carry with them during their trips. Since international visitors prefer to access printed material, and domestic visitors prefer to access Websites, similar information should be made available for both printed and online resources so that it reaches both groups. The influence of sources of information, for the planning of the itinerary as well as in the decisions taken by visitors during their trips, should be taken into account when creating future design interventions online or in such guides.
International visitors researched information on activities and attractions (69%), accommodation (65%), and weather (48%), before their arrival to New Zealand. Some of the other aspects consulted were transport and schedules (39%), prices (34%), people and culture (24%), and geography (21%) (see Appendix F) (Tourism Strategy Group Website: Type of information international visitors look for before arriving). Domestics visitors reviewed information related to accommodation (58%), activities and attractions (40%), transport (34%), and prices (28%) (see Appendix F1) (Tourism Strategy Group Website: Type of information domestic visitors look for before arriving). The percentages above indicate similarities with the preferences of visitors to the sites I investigated, as I explain in chapters 3 and 4.

The top five Websites consulted by visitors, in order to find general information about regions, present slight differences between different segments. For international, the main types of Websites consulted were airlines (36%), local tourism operators (28%), AA NZ travel (24%), travel review Websites (11%), and Lonely Planet (6%) (see Appendix G) (Tourism Strategy Group Website: Website used by international visitors to find general information about the regions). For domestic visitors, the main Websites reviewed were airline (39%), local tourism operators (30%), and AA NZ travel guide (15%) (see Appendix G1) (Tourism Strategy Group Website: Website used by domestic visitors to find general information about the regions). By contrast, the DOC and the iSite/other visitor Websites showed one of the lowest ratings in visitors’ navigation preferences. While for the DOC
Website the rates showed were 2% and 3%, for the iSite/other Visitor Centre were 9% and 7%, for internationals and domestics respectively.

It is relevant for my thesis to investigate why visitors do not include these Websites in their online pre-visit research, especially the DOC Website. For this reason, I will use the DOC Website as a case study, analyzing the following components: how well the site is promoted, the type of information that is included and missing, what information is relevant for diverse types of users, how to engage potential and actual visitors with the Website, how to enhance information experiences using this resource, among others.

2.6 Visitors to New Zealand: Expectations, decisions, and satisfaction

The experiences that international visitors expected to find in New Zealand regions include friendly people (69%), scenery (63%), a safe and secure place (62%), a relaxing place (60%), and a clean and pure unspoilt landscape (55%) (see Appendix H) (Tourism Strategy Group Website: What international visitors expected to find in regions). Similarly, domestic visitors expect to experience a relaxing place (53%), friendly people (54%), a safe and secure place (53%), an appealing cityscape (46%), and good food and wine (42%) (see Appendix H1) (Tourism Strategy Group Website: What domestic visitors expected to find in regions).

The percentages suggest that visitors expect to socialize with friendly people in a relaxed and safe environment; therefore they might belong to the Non-Purist and
Neutralist Purist groups, because they avoid the isolation sought by the Strong Purist group.

There are many factors that influenced the final decision of tourists to visit a specific region in New Zealand. For international visitors, it was important to see natural attractions (59%), exploring unique places (50%), have fun and socialise (41%), and experience a must-see destination (39%) (see Appendix I) (Tourism Strategy Group Website: What was important in international visitor’s decisions to visit region). For domestic visitors, their decisions were influenced by taking time out (56%), having fun and socializing (39%), seeing natural attractions (36%), and escaping from daily pressures (29%) (see Appendix I1) (Tourism Strategy Group Website: What was important in domestic visitor’s decisions to visit region).

The importance of seeing natural attractions, having fun and socializing with others were registered by both groups of visitors, which suggests that visiting wilderness areas such as national parks might involve the expectation of experiencing nature-based activities while interacting with other visitors. These preferences show similarities with the findings of the studies I discuss in section 2.1, and my investigation results, which I explain in chapters 3 and 4.

International visitors reported that their three most important travel needs were to do a different thing (41%), to have fun (39%), and to find good value for money (36%) (see Appendix J) (Tourism Strategy Group Website: Three most
important international visitors’ travel needs). For domestic visitors, the most important travel needs were to have fun (43%), to find good value for money (36%), and to feel safe and secure (38%) (see Appendix J1) (Tourism Strategy Group Website: Three most important domestic visitors’ travel needs). Participants in my investigation expressed similar preferences about their needs, as I discuss in chapters 3 and 4.

Similar to the data from statistics, Ho et al. comment that most positive visitors’ perceptions of the park benefits are related with the quality of the environment, social and spiritual well-being, health, and physical improvement. By contrast, some of the negative perceptions are related to crime and unsafe conditions (299). It suggests visitors expect to have fun in a safe environment while undertaking new activities. These expectations are important to consider in any future design of information for visitors to wilderness areas, including Arthur’s Pass National Park.

For international visitors, the overall satisfaction of the travel experience was rated 8.3 out of 10. The highest satisfaction levels for specific aspects of the travel were related to people being friendly (8.4), safe and secure places to visit (8.3), scenery (8.3), transport (8.0), clean and unspoilt landscapes (8.0), and accommodation (7.9). Some aspects that showed the lowest rating were weather (7.1), signage (7.5), and amenities and car parking (6.5) (see Appendix K) (Tourism Strategy Group Website: Average international visitor satisfaction - All measures). Similarly, the overall satisfaction of travel experience for domestic visitors was 8 out
of 10. The highest satisfaction levels were related to transport (8.2), accommodation (8.1), safe and secure place to visit (7.4), scenery (7.4), friendly people (7.4), and signage (7.2). Some of the aspects that showed the lowest rating were clean and unspoilt landscape (6.9), weather (6.7), and amenities and car parking (5.9) (see Appendix K1) (The Tourism Strategy Group Website: Average domestic visitor satisfaction - All measures).

The data above suggests that, apart from enjoying the New Zealand’s natural features, visitors registered positive feedback towards transport and accommodation facilities, as well as the interaction with friendly people during their visits. These findings may suggest that most visitors to New Zealand’s regions belong to the Non-Purist or Neutralist groups, who prefer the interaction with other visitors in areas with well-developed basic facilities. In Appendix L, I show a comparative map with relevant data on pre-visit information consulted by visitors and its influence in decision-making on visits and their overall satisfaction.

It is also important to highlight the suggestions of Lovelock et al. regarding the importance given to recreational facilities such as huts, tracks, toilets, and picnic areas within the park and the proximity to them, as important factors which influence the social consumption of nature-based recreation areas of New Zealand (Chinese immigrant 51). In order to understand those differentiations in visitors’ preferences during my investigation in Arthur’s Pass National Park, I will apply the WPS method in my interventions.
Chapter 3. Pilot Studies

For the purpose of this thesis I visited the Catlins Conservation Park and the Orokonui Ecosanctuary in order to get an initial sense of peoples’ experiences in natural environments in New Zealand’s Conservation Estate. Exploration of those sites helped to determine the best approach and research methodology for my main case study of the Arthur’s Pass National Park. I chose these sites for my first investigation due to their popularity with visitors living in their neighbourhood and because of their proximity to Dunedin, my hometown. In the case of the Catlins Conservation Park, wilderness experiences include the marine environment as well as native forest. In this chapter I present the methodology, findings and discussion related to my investigation of these sites.

3.1 The Catlins Conservation Park

The Catlins Conservation Park is a Department of Conservation (DOC) area located between Invercargill, Owaka and Balclutha in the South Island of New Zealand. This park encompasses coastal areas through to native forest. Visitors enjoy the walks to “beaches, streams, lakes, waterfalls, caves or blow holes [. . .] where penguins, seals, dolphins, forest birds and seabirds are likely to be encountered” (DOC Website: “Catlins - Highway”). Māori culture and participation in the Catlins region has a long history. Papatowai was an area located along the Catlins coastline, used by Māori for seasonal camps. The bones of eight species of moa have been
discovered through excavations of ovens and middens. From about 1350, fishing replaced moa hunting and sealing (DOC Website: “Catlins - History”).

Geographic formations, vegetation and wildlife are the main natural features found in the Catlins Conservation Park. Dating from the Jurassic period, sandstone hills and fossilized forest can be seen in areas such as Murihiku Syncline and Curio Bay. Additionally, the hills in the Catlins form part of the largest area of native forest found on the South Island’s east coast. Ancient dunes, vast stands of pole podocarps and narrow bands of mature manuka, kāmahi, tōtara, rātā, tree ferns and fuchsia are distinctive characteristics of the native vegetation (DOC Website: “Catlins - Natural features”).

The Catlins hills and Catlins River Walk provide a refuge for forest bellbirds, wood pigeons, fantails, and grey warblers. Along the coast, visitors can observe the four types of seals found in New Zealand: elephant seals, leopard seals, New Zealand sealions/rāpoka and New Zealand fur seals/kekeno. Hector’s dolphins are also present, particularly at Porpoise Bay. Other animal species include Australasian gannets, yellow-eyed penguins, oystercatchers, royal spoonbills, spotted shags, and sooty shearwaters/tītī (DOC Website: “Catlins - Natural features”).

The aims of my investigation in this area were to find out what information resources were used by visitors before and during their visit, the type of nature-based activities that they engaged in, and their use of the park features and
amenities. I also investigated how sources of information could affect visitors’
decisions about what activities they undertake in the park.

I applied a fly-on-the-wall technique, which is a method used by the IDEO, a
Design and Innovation Consulting Firm. The IDEO Method Card method utilizes a
selection of 51 cards that presents variety of techniques that allow designers to
understand the people they are designing for. These cards include an explanation on
how and when each method is best used, as well as examples of their application in
real design projects (IDEO Website: “Method Card- IDEO”). According to Martin
and Hanington, the Fly-on-the-Wall observation allows the researcher to gather
information about people and behaviours, by observing them but avoiding
participating and influencing the people or activities that are being investigated (90).

During our trip to the Catlins, I observed my travel companion (Sophia) in
silence, but engaging with her after arrival, making notes, and taking photos. Sophia
is a 32-year-old Australian, who is a frequent visitor to New Zealand’s Conservation
Estate. She has been travelling around the country, over the past three years, by
bicycle or in her van, camping, and experiencing the wilderness in a variety of ways.
I also observed other visitors and gathered photographic evidence of their age, their
group size, and their interaction with other visitors while engaging in nature-based
activities. In addition, I documented information and signs available in different
areas around the park (tracks and other facilities) as well as how visitors consulted
their maps, personal devices (e.g. smartphones) and other printed information.
I designed a survey with seven open-ended questions that encourage a meaningful response that draws upon the respondent’s own experiences and expectations (see Appendix M). The other aim of the survey was to identify the types of visitors to the Catlins, according to the WPS method. Reja et al. point out that open-ended questions allow the respondents to give spontaneous answers without being influence by the researcher or by limited by close-ended questions (161).

Participants were eighteen adult park visitors, who were provided with information sheet (see Appendix A), and were asked to sign a consent form (see Appendix B) prior to completing the survey. I conducted the surveys in car parks, camping areas, picnic spots, and near waterfalls and beaches. Rather than providing forms for them to fill out, I asked questions and took notes of what they said. The survey was composed of the following questions:

1. Where are you from?
2. How long are you planning to stay in the Catlins?
3. What was important in your decision to visit the Catlins?
4. What did you expect to find in the Catlins?
5. What type of information did you look for before arriving in the Catlins?
6. Where did you find that information before your arrival in the Catlins?
7. Personal Inventory: What are the ten most important things you brought with you on this trip?
3.1.1 Observing my travel companion

Sophia’s lifestyle involves visiting natural areas and supporting conservation projects. She is a vegetarian, loves animals, uses recyclable products, and follows what she calls ‘nature-rights’ practices. I noticed that Sophia was an enthusiastic traveler who likes to be well organized before the trip. Among the personal inventory brought for the trip, she included printed material resources about the Catlins’ regions, binoculars, and accessories for cooking and sleeping in her van (see fig. 3.1). I discuss the printed material resources in more detail below.

![Figure 3.1. The personal inventory of Sophia](image)

Before the trip, I visited the iSite Visitor Centre and DOC office in Dunedin, in order to collect information about activities in the Catlins. I also reviewed the DOC Website. The iSite Centre did not have any relevant information at that time (although they now stock brochures and booklets about the Catlins). The DOC office only had available an A4 double side black and white “Catlins Highway Guide - Southern Scenic Route” by South Catlins Promotions (see fig. 3.2 and Appendix N).
Figure 3.2. The “Catlins Highway Guide (North)”

**Figure 3.2.** The “Catlins Highway Guide (North)”

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**Activities**

- **Catlins Woodstock Function Room - Group, wedding, conference, Ph 03 415 9583**
- **Catlins Information Centre - Campbell St, Owaka, Ph 03 415 8371**
- **Owaka Museum - Yacht Club, the meeting place, Ph 03 415 8323**
- **Earthline - Plant a tree to reduce your carbon footprint, Ph 03 415 8155**
- **Taupanga Adventures - Home Hyde, Ph 03 415 9516 or 027 629 2904**
- **Glen y Mon Art and Crystals - Ph 027 246 4204**
- **Catlins Gallery & Artist’s Studio - Rato St, Kakapō, Ph 03 412 8722**
- **Jenny’s Gallery - Art, cont. gift, Yachts, Kaka Point, Ph 03 412 8939**
- **Bottom Bus - Deep South Adventures ’Get On Get Off’ tour, Ph 03 304 332**

**Food**

- **The Whistling Frog Café & Bar - Gourmet coffee, meals, Ph 03 415 6338**
- **Dive South - Catlins Café & Takeaway, Owaka, Ph 03 2988 690**
- **Papawatu Store - Groceries, bottle store, Iuw and motels, Ph 03 415 8147**

**Backpackers**

- **Wrights Hill Lodge - Taliakaka, Ph 03 202 6424**
- **The Falls Backpackers - Pukaraua Falls Rd, Ph 03 415 8724**
- **Catlins Blowhole Backpackers - 24 Main Rd, Owaka (No Banks), Ph 03 412 8111**
- **Surat Bay Lodge - Surat Bay/Invermay, Ph 03 415 8590**
- **Ferntree Backpackers - Moana St, Kaka Point, Ph 03 412 9334 or 412 0117**

**Farms/Stay & Sell**

- **The Wilies Homestead - Ph 03 415 8025**
- **Greenwood Farmstay - Near Purakanui Falls, Ph 03 415 8290 or 027 408 5638**
- **Hilview Farmstay - Hunt Road, Owaka, Ph 03 415 8647**
- **Melyneux House Bed & Breakfast - Ph 02 412 8002**

**Wotels**

- **Catlins Area Motels - 34 High St, Owaka, Ph 03 415 8501**
- **Catlins Gateway Motel - Ph 03 415 8501 or 0800 320 242**
- **Nugget View Motel & Kaka Point Motel - Ph 03 412 8502 or 0800 525 279**
- **Thomas’s Catlins Lodge & Holiday Park - 20 rooms, 25 sites, Ph 03 415 8333**
- **Owaka Holiday Park - Cabins, 14 site, 5 tent sites, Ph 03 415 8634**
- **Kaka Point Holiday Park - Ph 03 412 9301**

**Motor Camps**

- **McLean Falls Motels & Holiday Park - Qualmark 4 Star Plus, Ph 03 415 8336**
- **Catlins Woodstock Lodge - Cabins, camp, power sites, Ph 03 415 8583**
- **Thomas’s Catlins Lodge & Holiday Park - 20 rooms, 26 sites, Ph 03 415 8333**
- **Porouwera Motor Camp - Ph 03 415 8453 or 0800 1 CATLINS**
- **Newhaven Holiday Park - Cabins, bus site, toilet sites, Ph 03 415 8634**
- **Kaka Point Campground - Ph 03 412 9301**

**Self Contained Accommodation**

- **Chawlands Farm Cottages - Ph 03 415 9589**
- **Teitukuru Forest & Bird Lodge & Bush Cabins - Ph 03 415 8624**
- **Hilltop Accommodation - 77 Tukangara Valley Rd, Pointcliff, Ph 03 415 8628**
- **Kouriglen Cabin - Pipitawa, Ph 03 415 8644**
- **Mohua Park - Luxury eco-cottages, Ph 03 415 8583**
- **Catlins Woodstock Lodge - Family units, Catlins Valley Rd, Ph 03 415 8583**
- **Catlins Apartments - Ph 03 415 8589 or 0300 230 242**
- **Brookdown Cottage - Owaka, dorms set (2 doubles, 1 twin), Ph 03 412 8111**
- **Nugget Lodge - 307 The Nugget Rd, Ph 03 412 8733**
- **Craner’s Accommodation - Kaka Point, Ph 03 412 8611**
- **Rata Cottage - Kaka Point, Ph 03 412 8779**

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**Attractions**

- **McLean Falls:** 20 minute walk.
- **Cathedral Caves:** 20 minute bush and beach walk to spectacular caves accessible only at low tide. Charges apply.
- **Lake Wilkie:** 10 minute walk showing species of forest development from blue edges to native forest.
- **Papawatu:** Forest and beach walks.
- **Teitukuru:** 10 minute walk.
- **Catlins River Walk:** 5 hour beach forest walk between the camping areas at Takanawa and The Wings (3km). No facilities.
- **Purakanui Falls:** Tukangara Walk.
- **Paruakau Falls:** National beach, campsite and picnic area.
- **Porouwera:** Beaches and camping ground.

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**Owaka - Main Centre of North Catlins**

- **Medical Centre**
- **Pharmacy**
- **Swimming Pool**
- **Golf Course**
- **Restaurants**
- **Shops**

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**All walks are one way times.**

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Each side of the “Catlins Highway Guide” contains a large map for each of the Catlins’ regions (North and South), which occupied almost its total width. Each map indicates relevant waypoints of attraction, activities, basic facilities and accommodation.

Sophia collected a useful selection of diverse printed resources about routes, campsites and attractions in the Catlins, from other sources from previous trips. For this trip, she brought the guide I describe above as well as: two brochures and one booklet written and published by DOC staff (see fig. 3.3), and a New Zealand maps guidebook.

Figure 3.3. Sample of DOC printed material brought by Sophia

by South Catlins Promotions. This guide was provided by the Catlins iSite Visitor Centre and it is also available for downloading and printing from the Catlins Official Website (see fig. 3.4). On its last page it includes this message: “Please recycle. If you have no further use for this brochure, please leave it at your next destination where others might benefit from it…”. During my research on Arthur’s Pass National Park; which I will discuss in chapter 4, where I also outline the need for visitors to share and recycle information.

Figure 3.4. Selected pages from “The Catlins Official Visitors Guide”

(South Catlins Promotions 1, 3, 14-15, 18-19, 21, 23)
It is worth commenting about the layout design of some of the information resources I mentioned earlier. Starting with the format and sizes of maps, some maps in DOC brochures occupy a smaller space in comparison to the text and photos (see fig. 3.5). Visitors in the Catlins might be more interested in looking for a specific geolocation, with waypoints if possible, instead of reading large texts.

![Figure 3.5. Example of maps in two different DOC brochures](image)

One other deficiency I noticed in a DOC brochure, the “Southern Scenic Route” (see fig. 3.6), was related to the concordance between text and image. On a few pages, Sophia found it difficult to relate the text to the image, as we had to flip the page in order to find the corresponding image. This layout created confusion, so she decided to stop reading it and concentrate on the signs available on the roads and in a few of the best of the printed maps she had obtained to confirm routes while
driving through. In contrast, a very positive feature of this brochure was the large size map situated in its middle. This map was the main reason why Sophia continued including this brochure among her personal information inventory for all her travels through the Southern Scenic Route (see fig. 3.6).

![Middle map from the “DOC Southern Scenic Route” brochure](image)

*Figure 3.6. Middle map from the “DOC Southern Scenic Route” brochure*

While Sophia was driving (see fig. 3.7), the map above was the second most consulted by Sophia. The maps in the New Zealand maps guidebook were Sophia’s favourite maps (see fig. 3.8 and Appendix O). All these maps include iconographic information about facilities and activities visitors could consider on their trips.
Figure 3.7. Sophia reviewing information resources while driving

Figure 3.8. Map (left side) most consulted by Sophia during driving
Sophia also considered that the “Catlins Highway Guide” (see fig. 3.2) provided comprehensive guidance with adequate key information for visitors. She made comments that information in this guide was simple, clear and easy to understand. These characteristics proved to be useful for navigation. I noticed this guide was being promoted for free in every commercial place in the Catlins.

The constant consultation of maps for confirmation of routes suggests that Sophia is a visitor that preferred to be sure she was taking the correct routes, avoiding expending valuable time that could be better used in undertaking other activities. Once Sophia found spots for parking and camping, she reviewed information related to activities and amenities in brochures, instead of routes and maps. During the day, her activities included walking, observing and photographing nature, such as birds, and reading informative signs (see fig. 3.9). In the evenings, Sophia looked for camping sites, talked about our daily experiences, and cooked our dinners.

*Figure 3.9. Sophia’s experiences in the Catlins*
3.1.1.1 Discussion and analysis

The interaction with my travel companion was useful during my experience and research in the Catlins. The journey gave me a sense of understanding the information resources provided and the information Sophia reviewed during the different stages of her visit. For example, at the beginning of the trip, Sophia shared with me a variety of her selected printed resources. Those resources have information about amenities, nature, activities, and routes. During the driving journey, maps were the main information reviewed, as well as signage and landmarks on the road. The consultation of information about activities and natural features was only relevant once we arrived at a specific site.

If the iSite Visitor Centre and DOC office in Dunedin have available more specific information on DOC campsites and activities in the Catlins, more visitors from the Otago area may well consider an overnight experience. I am grateful that Sophia was my tour guide and companion in my research, as she already had a collection of useful resources and sound knowledge of the places we visited.

The “Catlins Highway Guide” has available a summary of specific key information omitted by other resources, which suggests that for long-term visits that require more planning, the use of such a guide is extremely important. Similarly, the location of large maps in the middle of guides, using colour codes and icons to identify waypoints for amenities and facilities, matched the positive characteristics of the map in the guidebook that was most used by Sophia. Maps available in other
printed resources should include these design elements, considering that while driving, visitors tended to pull off the road to review them.

Taking into account the WPS in the analysis of maps and resources consulted during the trip, I would suggest that most of those resources were designed for the Non-Purist, Neutralist, and Moderate categories of visitors. They are glossy and professionally designed, and include information about toilets, picnic and dog-walking areas, and other facilities that might not interest a Strong Purist. However, even Strong Purists will need a map in order to orientate themselves in unfamiliar areas, so we should not exclude this group as a user of printed information. The sources and information available for Strong Purists should be sustainably produced, in keeping with the ‘nature-right’ practices that they highly value.

Overall, the information on signage is appropriate, however design elements could be improved to aid orientation when arriving in the Catlins, including the DOC campsites. I will discuss signage in more detail below. Once Sophia and I arrived at specific sites, we only briefly reviewed information on signs or in her printed resources, as we preferred to explore certain areas by ourselves. Sophia compared her experiences with her prior visits and I noticed the sharing of memories was important for her. I recommend that future design interventions consider the visitors’ needs of sharing experiences with others, during the entire visiting experience.
3.1.2 Visitors using available information

In total, I observed 62 adult visitors during my three day stay in the Catlins Conservation Park. Almost 80% of visitors travelled with a partner, and their ages ranged from 30 to 65 years old. Most pairs visiting areas with basic facilities were male-female couples (see fig. 3.10). Pairs visiting more remote areas consisted of two men, who slept in their vans or on DOC campsites. Observing nature, taking photographs and camping were the most common activities undertaken in the Catlins. Additional activities were bicycling, climbing, and picnicking. The trend of travelling with a companion suggests that visitors were interested in socializing while experiencing nature-based activities in the wilderness.

Figure 3.10. Visitors to the Catlins

I did not observe visitors carrying brochures or guidebooks with them, although they had them in their vehicles. International and domestic visitors both brought cameras on their walks, some also had smartphones as well. Visits to the waterfalls and areas with basic facilities lasted for five-fifteen minutes, while campers spent two to three days in DOC campsites. Similarly to Sophia, most
visitors observed did not review printed resources while performing activities. They preferred to take photographs to document their visit, while sharing experiences with their companions or other visitors.

Regarding signage, in general, roadside signs did not show enough information as we entered the Catlins. The only useful signs were the ones provided by the Southern Scenic Route (see fig. 3.11), which matched with the information available in the map of the DOC “Southern Scenic Route” brochure consulted by Sophia, making it easier to confirm we were at the correct route.

Figure 3.11. Sample of sign visible on the road
Likewise, we could not rely on signs to find the correct road to a DOC campsite. The only sign we encountered was a piece of cardboard, which suggests that crucial information was lacking (see fig. 3.12). Other than that, we found that other DOC signs had uniform graphic characteristics, making it easy to identify a DOC site (see fig. 3.13).

Figure 3.12. Sign in a DOC campsite handmade with cardboard
At specific points of interest, such as the entrances of beaches, large descriptive information on panel boards had been put in place, explaining the nature and history of the place, as well as showing maps, essential travel tips and suggested activities. Most of the panel boards were well designed and included large images of natural features encountered in the place. The main difference I observed between DOC panel boards, signs and other information resources, related to usability and context. Most visitors who spent considerable time reading large amounts of information on signage were already based on a campsite. I also perceived they felt they were learning about a specific place by reading its contextual information.

The type of information available in panel boards indicates that this resource was created to tailor needs for information during long visits. It is virtually impossible to read much text on panel boards, or to refer to other information, while driving or making a short stop (see fig. 3.14 and 3.15).
Figure 3.14. Visitors reading information on a panel board

Figure 3.15. Information on a panel board at Papatōwai Beach
3.1.2.1 Discussion and analysis

Most visitors spent two to three days in the Catlins. During that time the main activities they enjoyed with their travel companions were walking, camping and photography. These are activities that involved exploration and adventure, as well as the sense of sharing experiences and socializing with others.

Overall, visitors did not carry a guidebook or a brochure in their hands. It was most common to observe them carrying backpacks, cameras or binoculars, which implies that they enjoyed self-discovering the place while documenting their experiences with photographs. In the case of campervans, occupants proudly showed me the equipment and appliances contained in their vans while describing their experiences including cooking and camping. Some of the comments included how visitors adapted certain furniture, or the use of a specific tool for cooking or tenting; which suggests that they look for some grade of comfort while experiencing nature but also willing to adapt to place.

Visitors showed an interest in any kind of information that enhanced their experience of learning and discovering. For this reason, I consider the information available in DOC panel boards on specific sites of interest to be very useful. However, it is worth mentioning the lack of information on highways and routes prior to arriving in the Catlins, especially regarding to campsite areas. It might influence the relatively low frequency of visit to the Catlins compared with other conservation areas I later investigated, in the Arthur’s Pass National Park.
Preferences for remoteness and isolation were equally split among visitors, according to my observations. Fifty percent of the couples visited areas with basic facilities and an easy road access. The same percentage of couples preferred camping at the beach or in the bush. The percentages suggest that visitors to the Catlins might be split between Non-Purist and Moderate Purist groups.

### 3.1.3 Survey

I gathered important information on visitor’s experiences and the information resources they consulted before their arrival. The findings of the survey related to visitor’s experiences show similarities with the statistics I discuss in chapter 2.1. For the purposes of the survey, there were a total of sixteen adult New Zealanders present, distributed in groups of five or more people. I only surveyed one person in each of those groups. In total, I surveyed 22 individuals, two New Zealanders and twenty international visitors. Of this total, 32% were males and 68% were female.

Couples (50%) and groups (45%) made up the majority of visitors, with the remaining 5% visiting the Catlins by themselves (see fig. 3.16). The age groups of 20-29 years (50%) and 30-39 years (32%) showed the highest percentages of visitors (see fig. 3.17). Most international visitors came from Australia, England and other European countries. Fifty-five percent of visitors stayed for one day, and took part in various activities, including making stops to enjoy coastal areas, taking easy walks, and visiting picnic grounds. Of the visitors who took extended trips (two to four days), 36% stayed in a DOC campsite or other spots close to the beach or bush.
(see fig. 3.18).

Figure 3.16. Visitors to the Catlins by gender and travel companions

Figure 3.17. Visitors to the Catlins by age group
International visitors chose the Catlins as a tourist destination due to this place being a relatively unexplored wilderness area of the South Island. Similarly, domestics expected to achieve a relaxing wildlife experience, away from the city and their responsibilities, including the opportunity to take photos and camping.

International visitors reviewed guidebooks (38%) (especially the Lonely Planet), word of mouth (26%) and the Internet (21%), before their arrival at the Catlins (see fig. 3.19). They consulted information on natural features, activities, campsites, and routes. Most of domestic visitors had visited the Catlins before; therefore, they were already familiar with its natural features. Visitors also mentioned that they occasionally consulted information on routes, activities, and
recreational amenities through word of mouth and the DOC Website. Most visitors defined this Website as boring and difficult to follow.

![Bar chart showing sources of information consulted before arrival to the Catlins](image)

<table>
<thead>
<tr>
<th>Source of information</th>
<th>Total</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word of mouth</td>
<td>11</td>
<td>26</td>
</tr>
<tr>
<td>Internet</td>
<td>9</td>
<td>21</td>
</tr>
<tr>
<td>Travel/guidebook</td>
<td>16</td>
<td>38</td>
</tr>
<tr>
<td>iSite Visitor Centre</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>42</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Figure 3.19. Sources of information consulted before arrival to the Catlins*

Sixteen visitors could not list ten things that they brought in their personal inventory. They only listed a maximum of seven items, including: camera, binoculars, food, water, and map or guidebook. During their walks, the guidebook was either carried in their backpack or left in their car or van.

Regarding signage on the roads, thirteen of the visitors surveyed commented that signs on the highways and at specific locations were poorly designed and difficult to read and follow for navigation. This is similar to what Sophia expressed
during her driving and orientation in different locations of the Catlins, as I discuss in chapter 3.1.2. In contrast, the signs and panel boards by DOC available in the DOC campsites and other areas were very useful and helped visitors to learn about natural features, the history of the region and how to approach a native animal (see Appendix P). In relation to the use of mobile technologies, I only observed one international visitor using an iPhone with GPS for navigation.

3.1.3.1 Discussion and analysis

Before travelling to the Catlins, visitors (especially internationals) consulted information on the Internet, or in guidebooks and brochures. Most visitors reviewed the Websites with information related to natural features and road access. The DOC Website is an unpopular resource among visitors, who criticized the long and boring text available on this Website. Only a few domestic visitors commented they browsed the DOC Website during their visit’s planning, mostly to confirm the locations of the DOC campsites.

Visitors mentioned the use of the Lonely Planet, maps and other guidebooks when they were driving to the Catlins or when basing themselves in specific sites. During the walks, they preferred to experience a sense of adventure associated with discovering the place without following maps or guidebooks too closely. I did not observe visitors carrying guidebooks or brochures with them during the trip, but these may have been in their backpacks.
Visitors to the Catlins spent an average of three days there, and the most common activities I observed were camping and the enjoyment of nature by taking walks, observing, and photographing. The contact with nature was important and the opportunity to learn about the history and characteristics of the area was valued by visitors. Visitors also enjoyed sharing their experiences with their travel companions or other visitors during their walks as noted by evidence.

The Catlins receives a diverse assortment of domestic and international visitors who look for rest and relaxation in a relatively unexplored New Zealand wilderness area. The WPS was a useful tool for considering the diverse expectations, preferences for information and behaviours of visitors based on preferred degrees of amenities, remoteness, and isolation. However, there was a common need shared by different groups, which is the use of specific information resources for each stage of their visit, as well as the socialization with others while experiencing a natural environment.

According to the WPS, the Strong Purist visitors prefer to visit or stay overnight in wilderness areas that show no signs of human impact (e.g. no recreational facilities or easy road access) while the Non-Purist enjoy the comfort of basic facilities and other features such as signage, bridges, rest spots, and highways. Initially, I thought that the male Australian couple I surveyed as well as other visitors who stayed overnight in their vans or in tents pitched far apart from noisy areas and popular places, might be categorized as Strong Purists. However, I observed these visitors had more equipment available to them than what a lone
tramper in the wilderness would have, and they remained reasonably close to the road (see fig. 3.21). This suggests that they might belong to the Moderate Purist group instead of the Strong Purist group.

Figure 3.20. Visitors and their camper van

I was unlikely to encounter Strong Purists, as they would be expected to be off on their own, away from other visitors, and stay in more remote wilderness areas rather than the popular beaches, bush, and tracks I investigated. This suggests that, for the purpose of my research, I should focus on the other three categories of the WPS (Non-Purist, Neutralist, and Moderate Purist). This does not mean that the Strong Purists will not be taken into account, but that when considering this group, I will have to rely on other research.

Apart from campers, other important segments of visitors to the Catlins were formed by couples and small groups, visiting picnic grounds and rest spots while taking short walks in places close to the car parking. These visitors enjoyed observing and taking photos of natural settings that also include artificial features
such as signage or bridges. The use of facilities, while performing a low-effort activity in companionship of others, suggest that these visitors might be split between Non-Purist, Neutralist and Moderate Purist groups.

The findings of my observations and the survey in the Catlins show similarities with some of the tendencies of visitors pursuing nature-based tourism in New Zealand, that I discuss in chapter 2.4. The main similarity is in the use of Internet and guidebooks as the main sources of pre-visit information. Other similar aspects are related to the visitors’ expectation of visiting a natural environment together with the type of activities performed and their length of stay in the park. However, by using the WPS as a method for determining the needs and preferences of different visitors’ groups, I achieved a better understanding of their engagement with a New Zealand’s wilderness area during different stages of their visits. My study of visitors to the Catlins validated the usefulness of the WPS as a research framework.
3.2 Orokonui Ecosanctuary

Orokonui Ecosanctuary is a 307 hectare area of native forest located 20km north of Dunedin, in the South Island. The land includes 230 hectares of DOC nature reserve that is controlled and managed by the Otago Natural History Trust in partnership with DOC and other institutions. In addition, Orokonui Ecosanctuary “has close research, management and advocacy relationships with Otago Conservancy” (Orokonui Website: “Partners”).

In 2007, an 8.7km pest-proof fence was erected in Orokonui as part of a restoration project that contemplates the protection of Orokonui’s ecosystem from predators (Orokonui Website: “Orokonui Home Page”). The eradication of pests has allowed for the successful reintroduction of endangered species, like native birds that now enjoy this bounded and protected wilderness area (Orokonui Website: “The Orokonui Story”). Visitors can experience forest wildlife in a regenerated forest ecosystem through guided tours and self-guided walks. The Orokonui Ecosanctuary also includes an eco-friendly visitor centre, a souvenir shop, a cafeteria and an education centre (Orokonui Website: “Orokonui Home Page”).

Orokonui offers a ‘living classroom’ experience that provides educational programmes suiting a range of people, from enthusiastic beginners to research students. Some of these programmes include a living laboratory experience, night visits, and animal tracking (Orokonui Website: “Education”).
The aims of my research in Orokonui were to analyze the information available to visitors in particular the key signs and landmarks, and how they influence decisions during their visits. I also conducted a brief review of the content of the Orokonui Website.

I applied the fly-on-the-wall technique by observing my visitor companion during his visit to Orokonui. I made notes, and took photos. ‘Charlie’, my visitor companion, is a 37-year-old New Zealand male, who was a frequent visitor of New Zealand’s Conservation Estate during his youth. He used to travel by car or hitchhiked, camping in the bush and experiencing the wilderness in a more adventurous way. By closely examining this one individual, in the initial stage of my investigation, I hoped to gain insight about the interpretation of signs and other types of information on-site.

I also documented how information is presented in different facilities and locations around Orokonui (e.g. tracks and iSite Visitor Centre) as well as on the Orokonui Website. I observed the arrival of fourteen visitors to the main areas (e.g. main entrance, iSite Visitor Centre, main tracks, and recreational areas). I took notes of their interaction with other visitors, and how they used Orokonui’s information resources and their own personal devices during their visit.
3.2.1 Observations and discussion

Initially, Orokonui was designed for guided walks led by trained volunteers who knew the ecosystem well. Orokonui now has begun to provide maps and install signs to aid self-guided visitors; however, these are not yet complete. The key signs and landmarks on the tracks are limited, and in most cases they are shown only in the main entrances.

Therefore, without an experienced guide, a visitor could miss many of the important features, and could potentially have difficulty navigating their way around the compound. This was evident in my observation of my visitor companion who became lost on several occasions whilst exploring the area. Signs were visible at the beginning of the tracks, but once he started walking he only encountered few navigation aids, aside from a few orange triangles and information on vegetation, which did not help him to effectively navigate the tracks. We also found some signs handmade with marker pens on white plastic board (see fig. 3.21).

Upon entry arrival, the iSite Visitor Centre provided ‘Charlie’ with a map of the compound. The information available on the map was very clear and easy to understand. It consisted of a large scale map indicating the main tracks within the Orokonui Ecosanctuary. However, as I mention above, on several occasions it was difficult to follow the waypoints indicated on the map, due to the lack of appropriate signage and landmarks to confirm his location (see fig. 3.22).
Figure 3.21. Sample of signs and landmarks at Orokonui
Orokonui includes extensive facilities at the location, such as seating, bridges, stairs on tracks, toilets, cafeteria, souvenir shop, and an iSite Visitor Centre. I observed that most visitors arrive in pairs. During their walks, or while they made
stops, they shared experiences with other visitors about the vegetation and the birdsongs they heard. Visitors took photos with their smartphones or cameras (see fig. 3.23). Before leaving, many visitors left positive feedback in the visitor book at the iSite Visitor Centre related to their educational experiences and the work done by Orokonui.

Figure 3.23. Visitors during walks
By pressing different buttons on the interactive display at the iSite Visitor Centre, visitors are able to hear the songs of the different birds that live in Orokonui (see fig. 3.24). I observed that most of the visitors enjoyed interacting with this display while comparing and remembering the bird sounds they heard during their walks. The sounds of birds and other natural features should be considered in the design of future multimedia resources, such as Websites, because of the added engagement that sound and interactivity enables.

Figure 3.24. Interactive device at the Orokonui iSite Visitor Centre

The iSite Visitor Centre has also available an attractive collection of panel
boards and other signs giving information on the history, natural features, and projects developed at Orokonui (see fig. 3.25). The design elements in these resources are consistent with those used in the Orokonui Website (see fig. 3.26), promotional brochures, and the Orokonui map I mention earlier. By applying a consistent professional design in their on-site information, printed material, and online resources, the managers of Orokonui are building a credible brand-identity in the area of conservation of the environment.

Figure 3.25. Information available at the Orokonui iSite Visitor Centre
The Website of Orokonui presents an attractive layout. Its header contains a reasonable number of links that connect with information on the Orokonui story, visits, events, educational programmes, venue hire, shop online, blog, among others. The blog of Orokonui is still under construction. The links in the Orokonui - Visit webpage connect to information about tours options and bookings, group visits, transportation, as well as a track map. This large size map includes the location of the tracks and places for resting and sightseeing in Orokonui. The map has the same appearance and content of the map given to ‘Charlie’ and can easily be printed directly from the Website (see fig. 3.27).
By merely observing visitors in Orokonui it was difficult to categorize them according to the WPS method. However, by observing the extensive facilities in the place, I conclude that Orokonui was well set up to meet educational and environmental needs of the Non-Purist, Neutralist, and Moderate Purist groups, especially child and scholar groups. Research at the site was useful, because it enabled me to observe visitors responding in different ways to the information available on-site. To achieve a better understanding of wilderness experiences of the four Purist groups, I investigated the Catlins Conservation Park, which provides more extensive and varied experiences that cater to a greater variety of visitors.
3.3 The Catlins and Orokonui: Overall discussion

During my pilot studies, I detected that a visit is formed by three stages, which are planning the visit, driving to the site and visiting the site. Visitors’ preferences on information resources they reviewed as well as the type of information consulted vary according to the specific stage of the visit they are at. Firstly, when visitors were planning their trip, they reviewed information on natural features and activities, as well as accommodation, if they expected an overnight experience in the wilderness. Websites, brochures, and guidebooks were relevant information resources that visitors reviewed at this stage, as well as information from other visitors. By reviewing feedback and recommendations from others, visitors reinforced their initial planning decisions for their trip, which were not strictly final as they might modify them during their visit.

Secondly, when visitors were driving to the site, they preferred to consult large scale maps with key information on locations, routes and amenities. Visitors also reviewed roadside signs, to confirm their navigation. I observed that when signs were limited during this stage, visitors were hindered in their ability to effectively navigate the road and promptly identify routes and specific locations. This was the case at the Catlins when Sophia was looking for a DOC campsite.

Finally, when visitors arrived at their destination and started their walks or other activities, the use of maps and guidebooks was limited. Instead, they preferred
to read information on panel boards and signs located at the beginning of the tracks. The information on the signage gave them the opportunity to review contextual information that is not available on Website, or in brochures or guidebooks. They experienced the sense of learning about a place, and they enjoyed sharing their experiences with other visitors as they went through the tracks and other recreational amenities. Observing nature, photographing and picnicking, were other activities that allowed visitors to socialize with others.

Visitors that decided to use maps for self-guidance, sometimes found it difficult to follow a path due to the lack of signs. In general, I detected a need for more appropriate signage and maps for independent visitors, who are more likely to be Moderate or Strong Purists than Non-Purists. The availability of a guide would suit the Non-Purist, while the ability to explore alone or with a friend with just a map might suit Moderate Purists more.

My pilot studies were useful in helping me to determine the site for my main investigation, and in shaping my methodology. I chose Arthur’s Pass National Park as my main case study site. As a large and diverse site located in a major tourist destination, it offers a wide variety of experiences that cater for visitors who span the WPS. As a major wilderness destination, it includes many different kinds of information on-site, which diverse visitors’ groups might approach in different ways. Since it is one of many DOC national parks, my findings and design interventions may be applicable to other Conservation Estate sites.
Chapter 4. Arthur’s Pass Investigation

After investigating the perceptions and preferences of visitors to the Catlins Conservation Park and Orokonui Ecosanctuary, I decided to focus on a national park in the South Island as my main case study site. According to the Department of Conservation (DOC), New Zealand’s national parks contain some of the most treasured wilderness areas in the country, and they attract a wide variety of domestic and international visitors who engage in a range of activities. Therefore, a study of the preferences and experiences of visitors in a major national park could contribute relevant information to my investigation.

I chose to investigate Arthur’s Pass National Park due to its historical importance and wilderness value, as well as its popularity among both domestic and international visitors. The aims of my investigation were to gather information about how different user groups access and use information about the park, and to discover how this information relates to their expectations and experiences in this environment. My observations and survey data would then inform my recommendations and design interventions, which I discuss in chapter 5. In this chapter I provide some background information about the park, explain the methodology and discuss the findings in relation to my research objectives.

4.1 Introduction to Arthur’s Pass National Park

In 1929, Arthur’s Pass National Park was established as the first national park
in the South Island and the third in New Zealand. The park is located between Canterbury and the West Coast, in the heart of the Southern Alps/Kā Tiritiri o te Moana (DOC Website: “Arthur’s Pass National Park”). It includes a wide range of natural features, with significant contrasts between the west and east sides of the park. In the West, podocarp rainforest predominates, with pure stands of the red-flowering rātā and magnificent luxuriant understory shrubs, ferns and mosses. By contrast, the East is dominated by Mountain beech/tawhai. Above the bushline, visitors can observe snow tussock and alpine meadows. Birds, such as the endangered kiwi/roroa, the kea, and other forest birds such as bellbirds/koromiko, fantails/pīwakawaka, and black-fronted tern/tarapirohe are also found in the park (DOC Website: “Arthur’s Pass - Features”).

The historic highway and railway in Arthur’s Pass National Park are important New Zealand cultural heritage icons. In February 1864, the explorer Arthur Dudley Dobson surveyed the pass along the Southern Alps. This was one of the passes used by Māori to trade pounamu/greenstone from Westland to Canterbury. After the discovery of gold in the West Coast, a road was built to connect Christchurch with the West Coast gold fields. Even today, the crossing of this road is a difficult task due the rugged terrain and unpredictable weather. Other major engineering works were the viaduct of Otira Gorge, built in 1923, and the Otira rail tunnel, built in 1929 (DOC Website: “Arthur’s Pass - Features”, “Arthur’s Pass - Tracks and walks”).

Visitors of different ages can enjoy a diverse range of walks in Arthur’s Pass.
Short and half-day forest walks are available, as well as beech forest tracks suitable for families, and a mountain summit to climb (DOC Website: “Arthur’s Pass - Tracks and walks”). In terms of accommodation, Arthur’s Pass has a variety of options from motels to backpackers. A DOC camping area is located in the village, with a day shelter, toilets and water facilities. Other camping facilities are located in the main entry points of the park, while within the park visitors can find over thirty backcountry huts and basic shelters. There are also several eating places, a craft shop, basic groceries, petrol, and an iSite Visitors Centre (DOC Website: “Arthur’s Pass - Places to stay”).

In my investigation, I used a combination of user observation methods and a survey. I gathered photographic evidence of visitors’ use of maps, signs and other printed information during their visit, as well as information and signs that I encountered at the park entry and by following the major paths. In addition, I documented how different visitor groups engage with nature-based activities while socializing with other visitors. I also noted the group size and the approximate ages of visitors.

I designed a survey with thirteen open-ended questions (Appendix Q) about the country of origin of visitors, frequency of visit, visitor companion, group size, resources and type of information consulted during pre-visiting and visiting, the influence of this information on the planning of activities undertaken and whether this information satisfied their needs and expectations. I also explored on levels of
perceptions and satisfaction, and suggestions for improving the visitor experiences in Arthur’s Pass. A preliminary version of this survey (Appendix R) was pre-tested with a sample of fifteen New Zealanders and international participants who had previously visited Arthur’s Pass or another national park in New Zealand. I adjusted and reworded several questions as a result of the feedback I obtained from this preliminary survey.

The main aim of the final survey was to identify the different information needs and expectations of visitors to Arthur’s Pass, in relation to the four levels of the Wilderness Perception Scaling (WPS). Survey participants comprised 71 adult park visitors, 40 males and 31 females. Participants were provided with an information sheet (see Appendix A), and were asked to sign a consent form (see Appendix B) prior to completing the survey. I conducted the surveys in main access points such as car parks, camping areas, waterfalls and eating-places. In conducting the survey, I was assisted by a group of third-year Design students from the University of Otago, who had travelled to Arthur’s Pass as part of their course of study. Rather than asking questions, we provided the survey forms for visitors to fill out themselves.

The survey was composed by the following questions:

1. Where are you from?

2. Is it your first time in Arthur’s Pass National Park?
3. Who did you come with?

4. How many people are in your group?

5. What were your main sources of information about Arthur’s Pass?

6. What type of information did you find in these sources?

7. During your visit to Arthur’s Pass, where did you find information about the park’s features, activities or attractions?

8. What type of information did you read or hear about? Select and specify all that apply?

9. To what extent did this information (from question 7) influence your decisions about what to do at Arthur’s Pass?

10. What activities did you undertake in Arthur’s Pass?

11. Which of the following sentences best represents your experience in Arthur’s Pass National Park?

12. What is your level of satisfaction with the whole experience that Arthur’s Pass provided to you? Please explain why.

13. Do you have any other comments about your experience in Arthur’s Pass or recommendations about visitor information?

4.2 Findings

4.2.1 Visitors using available information

I noticed that visitors to Arthur’s Pass were enthusiastic travellers who liked to explore the natural features of the park by themselves. Among the personal
inventory brought for the trip, visitors mostly included a backpack, a bottle of water, and a camera. I rarely observed visitors consulting printed information other than panel boards and signs on the main tracks in the park. In general, panel boards either showed information about places to visit or suggested activities (mostly walking tracks), or described the history of the place (see fig. 4.1).

Figure 4.1. A selection of DOC panel boards in Arthur’s Pass
In the case of panel boards that suggested places to visit and activities, the information presented included a map, a brief description of the place (time and distances for walks), one or two pictures of natural features, and an illustration of a landscape (see fig. 4.2). Visitors spent an average of five minutes reading and discussing the information with their travel companions. Some visitors used their camera or smartphone to take photos of information on panel boards, such as map displays, to take with them during their walks (see fig. 4.3).

Figure 4.2. DOC panel board with information on places to visit and activities
After reading information on the panel boards, visitors looked around for the next sign on the track that indicates the correct path to follow. I noticed that people attached significant importance to the signs on tracks, which are located in the main
entrances to tracks and other access points in the park (see fig. 4.4). These signs have the same format as the signs that I observed in the Catlins and Orokonui Ecosanctuary. It is crucial that the signs on tracks also include information about distances and walking time of tracks. This would be useful especially for those who did not consult the panel boards before setting out or for those that might not have any helpful guidebooks or map with them.

Figure 4.4. A selection of DOC signage on tracks
In Arthur’s Pass, huts are one of the accommodation options that are available for trampers staying overnight. During this field trip, I visited the Bealey hut. I gathered useful information from the visitors’ book, which included comments about visitors’ overall experience in the park, as well as their overnight experience in the hut, their length of stay, group size, country of origin, and planned routes and activities (see fig. 4.5). A review of this feedback might help the Arthur’s Pass managers to improve the visitors’ experiences in a hut. In the last part of section 4.2, I also comment on visitor’s feedback from the iSite Visitor Centre as well as the potential for visitors to share information with other travellers.

Figure 4.5. Pages from the Bealey hut visitors’ book
The Bealey hut visitor’s book shows that, from 2006, most visitors travelled with one companion and they stayed at the hut for one night. Domestic visitors came predominantly from Christchurch, and internationals from European countries. This information matches the findings of the survey that I will discuss later in this chapter. Most of the feedback about their wilderness experience, including tramping and their overnight experience in the hut, was positive. Visitors also commented on the good condition of the hut itself. As the hut has only basic furniture, with no electricity or toilet facilities (see fig. 4.6), I assume that most of its visitors belong to the Moderate and Strong Purist groups, who prefer to explore by themselves (or with one companion) while staying in minimal structures in the bush, away from areas with more developed facilities.

As the hut is an important spot for resting, sharing with other visitors, and planning the rest of the journey, it is important to optimize the usage of a hut to enhance the wilderness experience. For instance, huts could incorporate activities to promote learning about the natural features or history of Arthur’s Pass, perhaps through the use of games, puzzles, quizzes, or other forms of ‘edutainment’ that can occupy visitors during their leisure time. Some of these activities could be inspired by, or based on, those that are suggested by the iSite Visitor Center, as I explain later in this chapter.
In DOC huts, a panel board informs visitors about the hut’s user code, which includes safety tips, care of the wilderness, and the upkeep and care of the hut. In Bealey hut, apart from a panel board (see fig. 4.7), I found a selection of maps, printed information from the Internet, a guidebook and other printed resources. Most of this material was left by previous visitors, as a way of assisting future visitors who might not have access to this information (see fig. 4.8).

This useful practice suggests that visitors could avoid bringing unnecessary material that can weigh down their backpack. It also indicates that visitors prefer to recycle information resources that might be useful to others, rather than waste it. These visitors are considerate users of the natural environment and demonstrate high conservation values. This observation could inform strategies for future design interventions focused on hut users, who may prefer to access information in digital or audiovisual form that can be shared with other visitors in Arthur’s Pass and with other interested individuals, wherever they might be. Using current technologies, information and records of experiences could be uploaded and shared in near real-
time, permitting future visitors to have personal and very timely information about the kind of experience that previous visitors have had in an Arthur’s Pass hut or other areas of the park.

Figure 4.7. Panel board available in the inside of the Bealey hut
During my visit to Arthur’s Pass, DOC staff invited me to participate in activities that normally are designed for groups of children. The main aim of the activities I undertook was to engage people with the natural setting and features by using senses other than sight. For example, walking with the eyes covered (simulating night time conditions) with the aid of a rope tied between two trees.
Another activity involved walking over the fields of moss with bare feet (see fig. 4.9). I do not consider myself to be an experienced tramper, but during these activities I became aware of new sounds, aromas and textures that I had not noticed before. Another entertaining way to learn about the natural features of Arthur’s Pass was collecting fruits or samples of leaves and mushrooms. I believe that these kinds of activities extend and enhance visitors’ experiences of the area, whether they are children or adult visitors who fit the Non-Purist, Neutralist, or Moderate groups as defined by the WPS.

During evenings, in the accommodation where I stayed, my travel companions and I enjoyed playing ‘Wood sticks’. This game consists of small wood sticks grouped in a pile. One or two marshmallows are placed on selected sticks. Each player has to take as many sticks as they can without moving any of the marshmallows. The person that collects the most sticks is the winner (see fig. 4.10).

Most accommodation in Arthur’s Pass does not have access to the Internet or other forms of electronic entertainment. This encourages visitors to find alternative ways to have fun and enjoy the natural setting while sharing experiences, stories and information with others.
Figure 4.9. Alternatives for self-exploration in Arthur’s Pass
4.2.2 Arthur’s Pass iSite Visitor Centre

The iSite Visitor Centre includes the following sections: reception, panel boards and interactive displays, a mini cinema, a souvenir shop and historic files. The reception area has a variety of DOC route guides, brochures, posters and maps of Arthur’s Pass tracks available (see fig. 4.11).

Other important areas in the iSite exhibit attractive printed and interactive information sources. For example there are panel boards with information on conservation projects involving the kiwi and kea; the “Kiwi Ranger” project for kids; and the history of the area (see fig. 4.12). I also observed a large size flax piece hand-woven by past visitors (see fig. 4.13). According to DOC staff, during the last few years, visitors to the iSite Visitor Center have been invited to leave their mark on the place by adding a few centimeters to this hand-woven piece. The aim of this practice is to engage people with the Arthur’s Pass through contribution to a traditional Māori practice.

Figure 4.10. Learning and having fun in Arthur’s Pass
Figure 4.11 Sample of printed information available at the iSite Visitor Centre
Figure 4.12 Panel board with information about conservation projects

Figure 4.13 Large size flax piece hand-woven by visitors
In the left hand side of the iSite, there are panel boards as well as interactive displays with audiovisual information on insects, birds and tracks that can be found in Arthur’s Pass. Some of the interactive displays invite visitors to identify the natural environments of insects and birds as well as hearing their sounds, by pressing different buttons (see fig. 4.14).

Figure 4.14 Panel boards with information about walks
There is also a large interactive display, which, according to DOC staff and my observations, shows the highest rate of use among all the displays in the iSite Visitor Centre. This display permits the visitors to highlight the location of the main tracks and attractions in the park (see fig. 4.15) by pressing buttons.
I noticed that visitors enjoyed using this display to get an idea of the walks they were planning to take, or to discuss their experience of their completed walks with others. The popularity of the interactive displays suggests that the inclusion of sound and light and use of other senses, such as touch, in the design of future multimedia and mobile resources could attract visitors’ attention and improve their engagement with various aspects of the park. Displays and activities that encourage social interaction also seem to enhance their overall experience. Furthermore, the popularity of the large, interactive, 3D map suggests that visitors like visual aids that provide a detailed overview that can be used to choose tracks and other activities, plan their trip, and discuss their experiences with others afterwards. Such aids could be considered when designing information for mobile devices. In addition, detailed maps that invite users to append information and photographs could enhance the usefulness of Websites.

Indeed, it is not difficult to imagine how a 3D immersive game-like environment could be designed that could allow users to explore a simulation of Arthur’s Pass in the way that gamers explore realistically-rendered fictional environments. This would be one effective way to engage a younger generation that is very familiar with immersive online experiences, and might find 3D physical maps with buttons to be somewhat low-tech. Strategies that make use of, and connect, digital simulations, physical models, 2D print material, and mobile, screen-based information could successfully engage different generations of visitors,
regardless of whether they fit the Strong Purist or Non-Purist category.

A small cinema presented a black and white video about the history of Arthur’s Pass, including information about the building of the park facilities. I watched the entire video with other young adult visitors (see fig. 4.16). I noticed that people showed signs of boredom only a couple of minutes after the long video started. They commented on the length and formality of its content. Visitors expected the video to provide information about birds, natural features, tramping and other activities, not a historical presentation that dealt with past decades. There was insufficient information available about the contents of the video, which younger visitors might not have chosen to view if they had known what it covered. This resource may be of interest to researchers, older visitors, or others who have an interest in the history of the place, but it may not be appropriate for a broader audience. Perhaps such a video would be better placed on the DOC Website with a clear description of its content.

Figure 4.16 Visitors at the cinema
The souvenir shop also attracted visitors. Among the resources available in this area are books, videos and CD’s by DOC staff and other authors, with information about birds and other natural features of New Zealand wilderness including Arthur’s Pass (see fig. 4.17). There is also information (and tools) such as night sky charts, for self-explorers who are looking for overnight experiences (see fig. 4.18).

For researchers, there is a selection of Arthur’s Pass historical books and records that can be viewed on the top floor.
4.2.3 The sharing of time-sensitive information during visits

During my observations, and in my review of visitors’ feedback from the iSite Visitor Centre archives, I noticed that visitors showed a strong interest in sharing personal travel tips as well as feedback about their own experiences in the park. Comments included safe travel tips: “You can find waterproof matches in the Visitor Centre, it is better you bring more than less!”, experiences using facilities: “You need to be careful while crossing the bridge on that track, there is some damage!”, advice about clothing: “Bring your boots and an extra thermal!”, weather: “I warn you about the ice underneath snow, you need to be extra careful!”, and recommendations about what activities to undertake: “If you stand up in that part of the river, and are quiet, after few minutes you will hear the sound of the Kea!”.

Visitors, who shared this information, did so not because they were prompted to do so, but because they simply wanted to share what they had learned. This behaviour is similar to what we observe in the use of popular social networks, such as Twitter and Facebook, where people publish their personal stories for others who share their interests. DOC needs to be aware that young people are heavy users of social media as well as other mobile technologies. In order to engage younger people with the wilderness, it would be advisable to use the media that they use.

During a radio interview, Mick Abbott mentioned that a major concern is that younger New Zealanders are much less engaged with wilderness than older age groups. For this reason, Abbott suggests that during childhood, when people are at
the initial stage of involvement, we have to encourage them to enjoy and become connected with the New Zealand wilderness in “a way to allow them to choose their way rather than be told what to do” (“Feature Guest - Mick Abbott”). Therefore, Abbott suggests it is important that we develop strategies for engaging younger New Zealanders.

4.2.4 Real-time feedback from other visitors

The iSite Visitor Centre has a large collection of visitors’ feedback from comment cards, questionnaires and hut fees payment envelopes, as well as from letters and greeting cards that visitors have posted following their visits. This information is unavailable to the public, but was used during my research. The feedback covers a range of comments about their experience in the iSite Visitor Centre and the information that it provides. They also commented on their experience of other facilities and of Arthur’s Pass generally. I include some of this feedback in Appendices S and S1.

Visitors expressed themselves in the comment cards, letters and greeting cards by writing a large quantity of text. Some of the feedback also included emotion icons such as happy or sad faces, hearts, hands with thumb up or down (comment cards and questionnaires), hand-drawn illustrations of natural features (cards) and photos (letters). The emotion icons mentioned above were also popular in the comments encountered in the Bealey hut visitors’ book I mentioned in chapter 4.2.2. The icons used in the feedback are similar to those that are used in social media platforms to
express emotions and feelings.

The average rate of satisfaction was often related to the level of the services offered by the iSite Visitor Centre. For instance, “[t]he limited stock available for sale” in the souvenir shop could be improved. People enjoy shopping, and they want to take home more tangible memories of their experience. Visitors also would like to enjoy a hot cup of coffee in the iSite. The visitors also commented on the poor maintenance of some toilet facilities: “[m]ore toilet paper and soap should be available in toilets, to avoid spreading germs in the park”. Some also suggested that “[s]howers should be available in huts”. In relation to the information available in the iSite, visitors would like to have “[m]ore things to touch and hear in displays” as they found that textures and sounds are engaging and entertaining. People also highlighted that signage in Arthur’s Pass needs to include large detailed maps of routes and hut locations. For these visitors, the DOC Website and printed resources should also include these maps, as well as information about alternative activities, weather and recommended gear. A final recommendation that some visitors made was related to the payment of hut fees. They suggested that the payments should be made online, and the tickets printed directly from the Website, or delivered by email. Some visitors mentioned that it was inconvenient to have to visit the iSite just to collect hut tickets, and they would have preferred to use more of their time outdoors.

Negative feedback was related to the lack of appropriate content in the iSite information resources or on the DOC Website. One visitor said that “[m]ore
information on current weather forecast and general warnings is needed” in the DOC Website, while another commented that “[i]nformation about what to wear in each specific weather conditions” is more specific in the printed resources than on the DOC Website. One visitor reported, “[i]t is better to look for information about what to do in the iSite Visitor Centre than on the DOC Website”. It seems that, even when the DOC Website includes the type of information that visitors are looking for, they have not been able to find it easily. This suggests that there is a problem with the Website structure, layout, navigation or search functions. This resulted in some visitors feeling disappointed and frustrated because they could not plan a longer trip: “Once in the park, I wished to know about other options before coming to Arthur’s Pass”. Other negative comments related to the signage in the park. Signage is not shown in places where it should be, as “[m]ost signs are located at the entrance of the tracks or main attractions, when it is too late to turn back”. Positive feedback gathered by the iSite Visitor Centre is mostly related to visitors’ interactions with the wilderness. Overall, even when the weather forecast conditions were unpredictable, visitors enjoyed their experience in Arthur’s Pass: “Although it was raining, our spirits were not damped”. Furthermore, even when some visitors were dissapointed because the lack of appropriate pre-visit information led them to plan a short visit instead of a two or three days visit, they reported that they were looking forward to a repeat visit. Kids and adults visitors liked observing nature and hearing natural sounds (waterfalls and rivers, birds, wind) and they also enjoyed taking part in the activities and games that were suggested by DOC staff: “I really liked playing the ‘Kiwi and Pest’
game, as it showed us how quickly pests can spread and how hunters can help to control them”. In relation to the park facilities, visitors appreciated “[t]he renovations and work done for tourists”. Huts users also appreciated the improvement to the huts: “In the Hawdon hut, the drying rack is a very much appreciated apparatus, as is the clearlite in the toilet roofs”. Visitors also applauded the friendliness and helpfulness of DOC staff, specially in the iSite Visitor Centre, as well as the attractiveness of the information displays and panel boards: “Information is visually very appealing, simply laid out”. Finally, one visitor pointed out that “[i]t is necessary to create an area acknowledging the visits of famous artists to Arthur’s Pass”. Like this visitor, others might also be interested in knowing more social history relating to the park. People are curious and want to share their experiences and feel some identification with others who have visited before them. This need for social information should be taking into account when designing future interventions. Because most of the feedback about the iSite Visitor Centre pointed ways to improve the souvenir shop’s services, as well as other facilities encountered in the park, this suggests that they might belong to the Non-Purist and Neutralist Purist groups. However, an important number of visitors went to the iSite to pay or collect their hut tickets, which suggests they could belong to the Moderate Purist group, who would prefer the use of accommodation facilities with a basic level of comfort, and value intimate contact with the wilderness.
4.2.5 Survey

In this section, I present the findings of the survey I conducted at Arthur’s Pass (see survey in Appendix Q). I discuss the responses from international and domestic visitors separately. Although in both cases they are a small sample size, the results provide an indication of trends. A much larger, more focused (and well-resourced) study could provide more robust data.

4.2.5.1 International visitors

In total, I surveyed 51 international visitors, most of whom were visiting Arthur’s Pass for first time (70%). Of this total, 61% were males and 39% were female. Not all respondents answered all of the questions. Ninety-five percent of participants visited Arthur’s Pass in groups of two to four people (see fig. 4.19). Forty-one percent of visitors were visiting the park with their friends, while 39% preferred the company of family. A minority of 16% of visitors, mostly males, preferred to experience Arthur’s Pass by themselves (see fig. 4.20).

The information above suggests most visitors enjoyed sharing their wilderness experience with people who they know, and only a minority preferred an isolated experience. However, the fact that they visited Arthur’s Pass with family or friends does not mean that they always experience wilderness with the company of other people. Therefore, this is not enough information to warrant categorizing them into the Non-Purist or Neutralist Purist group.
### Table 4.19. Group size of international visitors to Arthur’s Pass

<table>
<thead>
<tr>
<th>Group size</th>
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<th>Male %</th>
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<td>94</td>
<td>95</td>
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<tr>
<td>5-10 people</td>
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<td>1</td>
<td>4</td>
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<td>5</td>
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<tr>
<td>Total</td>
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<td>18</td>
<td>100</td>
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<td>100</td>
</tr>
</tbody>
</table>

*Figure 4.19. Group size of international visitors to Arthur’s Pass*

### Table 4.20. Travel companions of international visitors to Arthur’s Pass

<table>
<thead>
<tr>
<th>Travel companion</th>
<th>Male</th>
<th>Female</th>
<th>Male %</th>
<th>Female %</th>
<th>Total %</th>
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<tr>
<td>By yourself</td>
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<td>41</td>
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<td>Family</td>
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<td>35</td>
<td>45</td>
<td>39</td>
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<tr>
<td>Others</td>
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<td>1</td>
<td>3</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Total</td>
<td>31</td>
<td>20</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Figure 4.20. Travel companions of international visitors to Arthur’s Pass*
International visitors came mostly from Europe (57%), Asia (19%) and Oceania (14%). Germany, UK, and Australia were the most common countries in both genders of visitor’s origin (see fig. 4.21). During the survey, I noticed that all of visitors spoke fluent English, which supports my suggestion to use English as the main language for future design interventions.

<table>
<thead>
<tr>
<th>Continent</th>
<th>Male</th>
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<th>Male %</th>
<th>Female %</th>
<th>Total %</th>
</tr>
</thead>
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<tr>
<td>Asia</td>
<td>7</td>
<td>3</td>
<td>23</td>
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<td>19</td>
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<tr>
<td>Europe</td>
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<td>13</td>
<td>52</td>
<td>65</td>
<td>57</td>
</tr>
<tr>
<td>Oceania</td>
<td>5</td>
<td>2</td>
<td>16</td>
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<td>14</td>
</tr>
<tr>
<td>America</td>
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<tr>
<td>Total</td>
<td>31</td>
<td>20</td>
<td>100</td>
<td>100</td>
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</tbody>
</table>

*Figure 4.21. Origin of international visitors to Arthur’s Pass*

The main sources of pre-visit information consulted by the international visitors were guidebooks (30%), iSite Visitor Centre (17%), reports from family/friends (17%), brochure (16%) and the DOC Website (16%) (see fig. 4.22).
Female visitors were more likely to have done pre-visit research than men, except in the case of the Websites, brochures, and iSite Visitor Centre.

![Graph showing sources of pre-visit information consulted by international visitors]

<table>
<thead>
<tr>
<th>Source of information</th>
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<th>Male %</th>
<th>Female %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
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<td>Family/friends</td>
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<td>7</td>
<td>14</td>
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<td>DOC Website</td>
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<td>6</td>
<td>14</td>
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<td>Other Website</td>
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<td>iSite Visitor Centre</td>
<td>11</td>
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<td>Others</td>
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<td>2</td>
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<td>1</td>
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<td><strong>Total</strong></td>
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<td><strong>29</strong></td>
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</tbody>
</table>

*Figure 4.22. Sources of pre-visit information consulted by international visitors*

The type of pre-visit information international visitors gathered was mainly related to walking tracks, following by activities/attractions and natural features. Male visitors were less likely to look for safe travel tips and to plan their trip to Arthur’s Pass to the same degree as female visitors (see fig. 4.23).
The DOC Website showed the lowest rating for pre-visit information consulted, which suggests that this Website is either hard to find, or the information was not found to be useful. In general, female and male segments shared similar preferences in type of pre-visit information consulted. The fact that males preferred to explore the wilderness without a strict and safe planned trip might suggest that they are...
more likely to belong to the Moderate or Strong Purist groups, who prefer the more
adventure and higher degree of risk.

The main sources of information that international visitors consulted during
their visit were signage (54%), which included signs and board panels, and printed
material (29%) (see fig. 4.24).

<table>
<thead>
<tr>
<th>Source of information</th>
<th>Male</th>
<th>Female</th>
<th>Male %</th>
<th>Female %</th>
<th>Total %</th>
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<td>Signs</td>
<td>13</td>
<td>9</td>
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<td>Printed material</td>
<td>11</td>
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<td>27</td>
<td>31</td>
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<td>Other</td>
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<td>41</td>
<td>29</td>
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<td>100</td>
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</tr>
</tbody>
</table>

*Figure 4.24. Sources of information consulted by internationals during the visit*

In this stage of the visitors’ time in the park, signage was reported to be the
most crucial informative source, which indicates that visitors might not have
adequate printed material with them to use a reference. Clearly, it is important that
information displayed on signage needs to be relevant and clear, especially since signage might be the only information resource available during their walks.

In the same way as pre-visit researching, the type of information that international visitors gathered on site mainly related to sites to visit and suggested activities, which included walking tracks, and natural features. Again, male visitors gave a higher rating to most of the types of information consulted, excepting for safe travel tips and trip planning (see fig. 4.25).

![Figure 4.25](image)

<table>
<thead>
<tr>
<th>Types of information</th>
<th>Male</th>
<th>Female</th>
<th>Male %</th>
<th>Female %</th>
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<tbody>
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<td>Suggested activities</td>
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<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Sites to visit</td>
<td>17</td>
<td>11</td>
<td>31</td>
<td>28</td>
<td>29</td>
</tr>
<tr>
<td>Sites to stay overnight</td>
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<td>16</td>
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<td>Natural features</td>
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<td>History</td>
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<td>55</td>
<td>41</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Figure 4.25. Type of information consulted by internationals during the visit*
To a considerable extent (40%), the information gathered in the park influenced the international visitors’ decisions about activities that they performed in Arthur’s Pass. Places to visit and weather conditions were the main factors that helped them to narrow down the options during the planning of their trip. Thirty-two percent of visitors closely followed the suggestions received from DOC signage and word of mouth about places to visit and specific short walks to take “quite a lot”. These visitors have not had previous knowledge about Arthur’s Pass, so they trusted in DOC signage, brochures, and guidebook resources consulted during their trip. Twenty-eight percent of visitors reported that the information on site did not influence their choice of activities very much, because they had planned their trips prior to their arrival at the park. However, they found the information on-site helped to reinforce their decisions. They also expressed their intention to return to the park to visit other areas they did not see and to perform activities other than short walks, due to their limited time frame (see fig. 4.26).
Sightseeing (14%), walks (46%), which included short and half-day walks, and photography (20%) were the main activities performed by international visitors. A minority of this group is likely to experience camping, climbing and mountaineering (see fig. 4.27). The percentages above suggest that most visitors preferred to be involved in activities that require a low level of physical effort that still enable them to get in contact with nature.

Figure 4.26. Influence of information on international visitors’ decisions
Activities undertaken by international visitors in Arthur’s Pass

Sixty percent of international visitors categorized their experience in Arthur’s Pass as a low level of physical effort, with access to a car park, toilet, and short walks. Twenty-three percent of visitors categorized their experience as a two-or-more days experience walking on maintained tracks (see fig. 4.28). Overall, the
The majority of visitors were looking for a brief wilderness experience with access to basic facilities, which indicates that this national park is more likely to attract visitors who belong to the Non-Purist, Neutralist and Moderate Purist groups.

![Bar chart showing experiences reported by international visitors in Arthur’s Pass]

<table>
<thead>
<tr>
<th>Experiences</th>
<th>Male</th>
<th>Female</th>
<th>Male %</th>
<th>Female %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low level of physical effort with access to car park, toilet, and short walks</td>
<td>17</td>
<td>11</td>
<td>61</td>
<td>58</td>
<td>60</td>
</tr>
<tr>
<td>Overnight experience with basic toilet and camping facilities</td>
<td>3</td>
<td>2</td>
<td>11</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Two or more days experience walking on maintained tracks</td>
<td>5</td>
<td>6</td>
<td>17</td>
<td>32</td>
<td>23</td>
</tr>
<tr>
<td>Prolonged contact with nature in isolation</td>
<td>3</td>
<td>0</td>
<td>11</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>19</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Figure 4.28. Experiences reported by international visitors in Arthur’s Pass*

Sixty-one percent of international visitors surveyed rated their level of satisfaction with the whole experience in Arthur’s Pass as “high”. Many commented that this national park is a beautiful place, with diversity of scenery and well-maintained tracks to visit. They also commented on the good road access, car
parking and other facilities, which are well maintained. On the other hand, 37% of visitors rated their level of satisfaction as “medium”. They highlighted the fact that information on weather and track distances was absent in some of the signs, making activities difficult to plan. They also mentioned that some tracks are not as well marked as at other DOC sites, making orientation difficult at times. The female segment also commented that some campground sites are close to the main road, which makes them less peaceful than they would otherwise be (see fig. 4.29). The positive rating about the conditions of the park’s facilities reinforces my assumption that most visitors to Arthur’s Pass would not belong to the Strong Purist group. Furthermore, many commented on the lack of appropriate information on signage, suggesting that the designs of these signs should be reviewed.

<table>
<thead>
<tr>
<th>Level of satisfaction</th>
<th>Male</th>
<th>Female</th>
<th>Male %</th>
<th>Female %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>20</td>
<td>11</td>
<td>65</td>
<td>55</td>
<td>61</td>
</tr>
<tr>
<td>Medium</td>
<td>10</td>
<td>9</td>
<td>32</td>
<td>45</td>
<td>37</td>
</tr>
<tr>
<td>Low</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
<td>20</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Figure 4.29. Satisfaction of international visitors with their experience in Arthur’s Pass*
Some of the positive comments gathered during the research highlighted the fact that most visitors enjoyed a great wilderness experience in Arthur’s Pass. Visitors also found that the iSite Visitor Centre was extremely helpful, and the staff were very friendly. A few commented that their time in the park was too limited, and that they would have planned a longer stay if they were more aware of the multiple options that were available. If international visitors were able to access some of the detailed information at the initial stages of planning their trips, they might spend longer in the park. This needs to be kept in mind when we consider what information to provide on the DOC Website and through other means, especially for people who are not likely to encounter brochures that local visitors would find in Visitor centres, hotels, and other tourist destinations in New Zealand.

4.2.5.2 Domestic visitors

In total, I surveyed twenty domestic visitors: 45% males and 55% females. Not all respondents answered all of the questions. Sixty percent of participants visited Arthur’s Pass in groups of two to four people while 25% came in groups of five-ten people (see fig. 4.30). Forty-five percent of visitors traveled with their family, while 30% were visiting with friends. A minority of 11% of male visitors preferred to experience Arthur’s Pass by themselves, which, like the international male visitors, suggests that they are more likely to belong to the Strong Purist group (see fig. 4.31). Half of visitors surveyed came from Christchurch (50%), and, for most, it was not their first time visiting the park (see fig. 4.32).
### Group size of domestic visitors to Arthur’s Pass

<table>
<thead>
<tr>
<th>Group size</th>
<th>Male</th>
<th>Female</th>
<th>Male %</th>
<th>Female %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-4 people</td>
<td>7</td>
<td>5</td>
<td>78</td>
<td>46</td>
<td>60</td>
</tr>
<tr>
<td>5-10 people</td>
<td>2</td>
<td>3</td>
<td>22</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>More than 5 people</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>27</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>11</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Figure 4.30. Group size of domestic visitors to Arthur’s Pass*

### Travel companions of domestic visitors to Arthur’s Pass

<table>
<thead>
<tr>
<th>Travel companion</th>
<th>Male</th>
<th>Female</th>
<th>Male %</th>
<th>Female %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>By yourself</td>
<td>1</td>
<td>0</td>
<td>11</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Friends</td>
<td>1</td>
<td>5</td>
<td>11</td>
<td>46</td>
<td>30</td>
</tr>
<tr>
<td>Family</td>
<td>6</td>
<td>3</td>
<td>67</td>
<td>27</td>
<td>45</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>3</td>
<td>11</td>
<td>27</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>11</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Figure 4.31. Travel companions of domestic visitors to Arthur’s Pass*
The main sources of pre-visit information consulted by the domestic visitors were reports from family/friends (28%), the DOC Website (19%), brochures (15%), and iSite Visitor Centre (13%) (see fig. 4.33). Female visitors were more likely to have conducted pre-visit research than men, except in the case of the guidebooks, Websites and iSite Visitor Centre, where males engaged slightly more than females.
Even if domestic visitors had already visited Arthur’s Pass, they were looking for new options that enhance their visits. The type of information they gathered related mainly to walking tracks, following by huts, natural features and trip planning. Safe travel tips and activities/attractions were more likely to be consulted by female visitors (see fig. 4.34).
The main sources of information consulted by domestic visitors during their visit were signage (55%), which included signs and board panels, and printed material (31%) (see fig. 4.35).
Figure 4.35. Sources of information consulted by domestics during the visit

The type of information they gathered was mainly related to walking tracks, natural features and suggested activities (see fig. 4.36). These findings are similar to the international segment, which suggests that domestic visitors to Arthur’s Pass are looking for alternative options for activities they can engage in, while on site.
The information gathered in the park influenced to “some extent” (42%) and “not much” (37%) domestic visitors’ decisions about activities to perform in Arthur’s Pass. The main factors that influenced the activities undertaken were their previous experience (for repeat visitors) and their pre-visit planning (for first time visitors). However, information on the type and level of skills required, as well as information about conditions of tracks and weather, also influenced their decisions about what to do. Twenty-one percent of visitors followed the suggestions received from DOC signage and word of mouth regarding conditions of tracks and weather “quite a lot”.

Figure 4.36. Type of information consulted by domestics during the visit
This suggests that these visitors are more likely to belong to the Neutralist, Moderate and Strong Purist groups, who are more likely to require such information because of their intention to embark on longer trips, perhaps involving an overnight stay. Overall, visitors expressed their intention to return to the park to visit other areas they could not visit during their initial trip due to time limitations (see fig. 4.37).

<table>
<thead>
<tr>
<th>Extent of influence</th>
<th>Male</th>
<th>Female</th>
<th>Male %</th>
<th>Female %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not much</td>
<td>2</td>
<td>5</td>
<td>24</td>
<td>45</td>
<td>37</td>
</tr>
<tr>
<td>To some extent</td>
<td>3</td>
<td>5</td>
<td>38</td>
<td>45</td>
<td>42</td>
</tr>
<tr>
<td>Quite a lot</td>
<td>3</td>
<td>1</td>
<td>38</td>
<td>10</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>11</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Figure 4.37. Influence of information on domestics visitors’ decisions*

Sightseeing (24%), short walks (22%), and photography (20%) were the main activities performed by domestic visitors. A minority of this group is likely to experience backcountry hut stay, half-day or one-or-more days walks, and bird watching (see fig. 4.38).
### Activities undertaken by domestic visitors in Arthur’s Pass

<table>
<thead>
<tr>
<th>Activities</th>
<th>Male</th>
<th>Female</th>
<th>Male %</th>
<th>Female %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sight Seeing</td>
<td>5</td>
<td>7</td>
<td>27</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>Short walk</td>
<td>4</td>
<td>7</td>
<td>22</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>Half-day walk</td>
<td>2</td>
<td>2</td>
<td>11</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>One or more day’s walk</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Camping</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Climbing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mountaineering</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Biking</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Backcountry hut stay</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Photography</td>
<td>4</td>
<td>6</td>
<td>22</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Bird watching</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Fishing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hunting</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>18</td>
<td>31</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Figure 4.38. Activities undertaken by domestic visitors in Arthur’s Pass*

Sixty-one percent of domestic visitors reported that their experience in Arthur’s Pass required a low level of physical effort due to easy access to the car park and toilet, and the short lengths of walks. Twenty-two percent of domestic visitors had an overnight experience with basic toilet and camping facilities (see fig. 4.39).
Visitors commented that they had the time and the inclination to spend more than one day in Arthur’s Pass. However, the DOC Website did not provide information that would have enabled them to easily plan do more activities and, perhaps, to stay longer. This might be one of the reasons why most of the domestic visitors that I surveyed spent only one night in the park in comparison to international visitors who preferred to stay two or more days.

<table>
<thead>
<tr>
<th>Experiences</th>
<th>Male</th>
<th>Female</th>
<th>Male %</th>
<th>Female %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low level of physical effort with access to car park, toilet, and short walks</td>
<td>5</td>
<td>6</td>
<td>62</td>
<td>60</td>
<td>61</td>
</tr>
<tr>
<td>Overnight experience with basic toilet and camping facilities</td>
<td>1</td>
<td>3</td>
<td>13</td>
<td>30</td>
<td>22</td>
</tr>
<tr>
<td>Two or more days experience walking on maintained tracks</td>
<td>2</td>
<td>0</td>
<td>25</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Prolonged contact with nature in isolation</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>10</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Figure 4.39. Experiences reported by domestic visitors in Arthur’s Pass*

Sixty-nine percent of visitors surveyed rated their level of satisfaction with the whole experience that Arthur’s Pass as “high”. Male visitors were more likely to
report a high level of satisfaction. By contrast, 31% of visitors rated their level of satisfaction as “medium”. Most reported that they enjoyed having a break of their daily responsibilities in a natural environment with beautiful scenery that was not too busy. They commented on the good facilities, including a helpful iSite Visitor Centre. Some of the positive comments gathered from male domestic visitors during the survey highlighted the helpfulness of the iSite Visitor Centre and the friendly travelers they encountered during their walks. A negative comment related to how some signs on the tracks were “[s]tatic, intrusive and boring to read, and discussed the natural features as a product and not as an experience” (see fig. 4.40).

<table>
<thead>
<tr>
<th>Level of satisfaction</th>
<th>Male</th>
<th>Female</th>
<th>Male %</th>
<th>Female %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>9</td>
<td>11</td>
<td>100</td>
<td>55</td>
<td>69</td>
</tr>
<tr>
<td>Medium</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>45</td>
<td>31</td>
</tr>
<tr>
<td>Low</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>20</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Figure 4.40. Satisfaction of domestics with their experience in Arthur’s Pass
4.3 Analysis and Discussion

Most visitors preferred to enjoy their wilderness experience in Arthur’s Pass with family and friends in groups of two to four people. A short walk was the most popular nature-based activity, followed by photography and sightseeing. The majority of the visitors limited their stay to one or two days, and not many stayed overnight in huts. This suggests that most of the visitors to Arthur’s Pass belong to the Neutralist Purist group, which tends to avoid solo recreation in the wilderness and prefers using well-maintained tracks with toilet and other facilities.

The WPS research reports that the Non-Purist group exhibits the highest number of positive perceptions regarding the human impact in wilderness areas, while the Strong Purists prefer to visit large and remote wilderness areas that allow them to have a solitary experience in a natural setting. This method also shows that the Non-Purist and Neutralist Purist groups have similar perceptions, as do the Moderate Purist and Strong Purist groups. In Arthur’s Pass, and the two sites I chose for my pilot studies — the Catlins Conservation Park and Orokonui Ecosanctuary — it was very difficult for me to find visitors who might belong to the Strong Purist group. Perhaps this is because Strong Purist avoided the areas I covered during my investigation, such as the iSite Visitor Centre, car park, picnic, main roads and walking tracks, due to the large numbers of people they would encounter there. Therefore, I was not able to observe and interview the Strong Purist segment as part of my research. If I were to visit the Otago Trampers and Mountaineering Club, or
other similar groups, I would likely encounter individuals who fit in the Strong Purist category. However, I leave this task for future researchers.

As I discuss earlier, the WPS is useful when thinking about the information needs of different types of visitors (e.g. Strong Purist vs. Non-Purist). However, my research has also shown that these needs differ depending on different places and contexts. I found that visitors collect and use different types of information during the three stages of the visit, which are planning, traveling and visiting the site. During the planning of their visit, they consulted information on Websites, guidebooks and reports from other visitors including family and friends. While driving, large printed maps and signs on roads were the main sources used. Finally, when visitors arrived at their destination, the information on signage, in iSite Visitor Centre, and word of mouth, were important. Any solution to provide appropriate information for these diverse user groups will need to take this into account. Ideally, information should be accessible that is relevant to the time, the place, and the physical and social context.

Both international and domestic visitors consulted information on guidebooks and the DOC Website on walking tracks and natural features before their arrival at Arthur’s Pass. According to visitors, these sources did not adequately present the many options for nature-based activities that were available, other than walking tracks. For this reason, the survey respondents reported that information they gathered from family/friends, signage on site and the iSite Visitor Centre was crucial
for the planning of their visit. Since the DOC Website is one of the first and primary sources of information, a redesign of this site could improve its usefulness as an information resource for visitors planning trips to Arthur’s Pass.

Solo recreation was mostly chosen by male visitors, who do not seem to be as interested in detailed, pre-visit information and planning before their trip, preferring the sense of adventure and self-discovery which they value as crucial elements of their journey. By contrast, female visitors showed a greater interest in reviewing pre-visit information, including safe travel tips, during the planning of their visit. This might suggest that they may feel unsafe travelling by themselves (specially international female visitors).

For visitors who engaged in a low-physical-effort experience as well as those who explored the wilderness by themselves over several days, signage was the information source most consulted during their visit. However, one of the reasons why some visitors rated their experiences in Arthur’s Pass as “medium” was the lack of adequate information on signage, and poor pre-visit information resources. For example, as mentioned earlier, visitors missed out on alternative activities, and focused mainly on walks. In spite of the dissatisfaction that inadequate information could have caused, it is important to highlight that visitors expressed their inclination to return to the park, which shows a high level of engagement and interest with Arthur’s Pass.
Another problem that could be caused by the lack of appropriated information is visitors getting lost. According to DOC staff, this is a common and dangerous situation that visitors to Arthur’s Pass and other New Zealand Conservation Estate areas have experienced. Indication of the time and distance of walking tracks was highly appreciated by visitors when they found it, and they criticized the absence of this important information on many signs and panels. I suggest all the signs should present information regarding times and distances of the tracks, as well as basic safe travel tips. This is especially important for low or moderate tramping experiences, when trampers may be less experienced and may not have consulted appropriate information prior to their visit.

Overall, I propose an exhaustive redesign of the information displayed in signs at Arthur’s Pass. This redesign should take into consideration the different needs and expectations of different groups as described in the WPS research. Information on signage should match information presented at other locations, such as the DOC Website, the iSite Visitor Centres and DOC information centres around the country.

For the minority of visitors who did not engage in a lot of pre-visit research and planning, the information presented on park signage, communicated by the friendly iSite Visitor Centre’s staff, and comments from other visitors had a major influence on the activities they engaged in. The majority of visitors, who prepared by conducting pre-visit research, used similar information resources on-site to confirm their decisions regarding planned activities. Accessing some information, like
weather conditions, clothing requirements, and safety travel tips, was even more vital once they arrived at the park and were about to head out on a walk.

The iSite Visitor Centre, with its helpful staff and interactive and non-interactive information resources received a lot of positive comments, both in my survey and in the feedback submitted by visitors at the Centre. Audiovisual information could also improve the experience and usefulness of the DOC Website. In addition, images, video and environmental sounds could feature in the design of future information resources for mobile devices. The experience of staying in the backcountry huts, bird watching, and taking photographs in the wild could all be enhanced by the provision of the kind of information and media that has proven to be so popular in the iSite Centre. Word of mouth is another important source of information for future visitors, and it provides unbiased, timely reports of actual experiences that other visitors have had. The social component of the Arthur’s Pass experience could be enhanced by the ability to access and contributes to discussion in real time, through the use of mobile social media.

4.4 Conclusion

Websites were among the main source of information consulted by international and domestic visitors while planning of their visit to Arthur’s Pass. The Department of Conservation (DOC) Website was the source that showed the least popularity among visitors. Considering that DOC is a central player in the
conservation and promotion of wilderness areas, including Arthur’s Pass National Park, their online information resources should be revised to effectively address the information needs of diverse users groups, including those who can be categorized according to the Wilderness Perception Scaling (WPS).

It is important that the DOC Website includes up-to-date and interactive information on the park’s natural features, alternative activities (such as photography, sightseeing and bird watching), as well as a detailed description of walking tracks, weather, and safe travel tips. The use of audiovisual elements in combination with social media could provide a more effective, more comprehensive and easy-to-use DOC Website. In order to attract and engage the youngest segment of visitors, social networks such as Twitter, Facebook or Flickr, could be integrated.

Word of mouth was another important source of information among visitors to Arthur’s Pass. The sharing of experiences and feedback helped to reinforce visitors’ decisions about what activities to undertake in the park. This suggests a major opportunity for DOC. The Website could enable visitors to share time-sensitive information through photo documentation, videos, and text, and to provide travel advice and post-visit reports. The sites I covered in my investigation in Arthur’s Pass have mobile phone and data coverage, although more remote areas are likely to have limited, or no, coverage. Considering that the cellular technologies and services are constantly improving, it is not unreasonable to think that, in a near future, most of the areas of the park will have coverage. New mobile technologies, such as tablets
and smartphones could enable visitors to access and share information anytime and anywhere. This would be especially useful for visitors who prefer to explore the wilderness by themselves, consulting information when necessary without the need to print, carry, or dispose of printed material.

The New Zealand Tourism Department has published reports on the increasing number of “green visitors” who have social and environmental values that lead them to avoid the infrastructure associated with mass tourism in New Zealand’s natural areas (Klisley and Kearsley 24). These visitors might also expect to interact with the nature while conserving resources. Strategies for the recycling and sharing of DOC brochures, maps and other printed information could respond to their environmental values, while improving their engagement with Arthur’s Pass.

Domestic visitors often make repeat visits to Arthur’s Pass. If they had more access to pre-visit information about what activities to undertake, other than just walks or sightseeing, they might plan a longer stay or more visits to Arthur’s Pass. Similar feedback was received from the international segment. These findings are in keeping with the investigations of Klisley and Kearsley that I presented earlier. These authors suggest that contemporary tourists come to New Zealand looking for an adventure in the natural world rather than settling for less exciting sedentary activities, such as simply observing scenery from a tour bus.
Chapter 5. Arthur’s Pass: The design interventions

The DOC Website was one of the least popular Websites reviewed by domestic and international visitors compared to other travel Websites. According to the data from Statistics New Zealand, only a minority of international (2%) and domestic (3%) visitors consulted information in the DOC Website prior to their visit. Considering that DOC is responsible for the conservation and promotion of the Conservation Estate, including Arthur’s Pass, the lack of popularity of its Website is a surprise and a lost opportunity. For this reason, I decided to focus my design interventions on the analysis of the current website, its design and content, taking into account the information needs of visitors as determined by my investigation, in order to propose improved communication strategies.

At the moment, the content of DOC Website presents advantages and disadvantages in relation to the diverse information needs of different user groups. The DOC Website includes a large number of text links, some of them related to formal research and DOC publications, which might not be of as much interest for users as the DOC managers might assume. Visitors are more interested in accessing time-sensitive information on “[w]hat appropriate clothes to wear”, “[w]hat alternative activities [to] undertake” or “[w]hat hut looks like inside”, among other suggestions collected from visitors during my interviews with visitors.

I propose a redesign of the DOC Website, starting with the Arthur’s Pass
National Park Section. My design ideas include the potential for developing and incorporating social media and networking opportunities, which offers exciting opportunities for engaging with younger, and more technologically savvy, visitors. With the coming of HTML5 and other advances in software and hardware, it is becoming easier to design information for mobile computers through Websites and smartphone applications. We are no longer limited to accessing web content via PC in a room. In the near future, it will be possible to customize information and address the information needs of individual users in real time, perhaps by using the DOC Website as the main portal.

5.1 Design interventions for each specific stage of the visit

During my investigation I identified information needs, problems and opportunities during the three stages of the visit: planning the visit, driving to the site, and visiting the site. Firstly, in the pre-visit planning, visitors consulted various sources of information, such as Websites, guidebooks and word of mouth, depending on the experience visitors were looking for.

Secondly, while driving to their destination most visitors reviewed printed resources such as large maps in guidebooks, as well as reading signs on the roadside. In guidebooks, visitors also looked for easy-to-read and follow information supported by medium or large size images about natural features and specific facilities. During this stage, some visitors reconsidered their decisions about what
activities to undertake and where to stay (if camping or staying in a hut overnight), while discussing them with their travel companions, if they were not travelling alone. Finally, when visitors arrived at their destination, they reviewed information on signs, visited the iSite Visitor Centre, and talked to other visitors. This helped them to reinforce their initial planning ideas, and to collect up-to-date information needs about the weather forecast and any other news about track conditions and activities to consider. Below, I present possible scenarios, taking into account the information of the four categories of Purist groups.

5.1.1. The Non-Purist’s information needs

During the pre-visit research, the Non-Purists might be more likely to look for information in areas close to their place of work or residence. In New Zealand, an iSite Visitor Centre or any DOC Office might be their first place to go in order to collect brochures, route guides and maps, as well as information about tours or car rental options. If overseas, they might want to visit travel Websites first. When Non-Purists are travelling to a specific area, they might refer to maps and signage regularly, to be sure that they do not get lost and arrive safely at their destination in the shortest period of time. Once at Arthur’s Pass, they are likely to visit places with commercial recreation facilities more than other Purists groups. Therefore, they might be more likely to consult information relating to recreation and nearby activities, as well information about car parking, restaurants toilets, and shopping (see fig. 5.1).
Non-Purists might engage in low-physical effort activities, including short walks, which require less time and less experience. However, they might also go hunting. Those who stay overnight may prefer to stay in developed campsites or other accommodation with a high level of comfort and easy access to well-maintained roads, tracks, bridges and recreational areas. Information about rest stops and developed campsites, and activities that involve spending a short amount of time and little physical effort, would be useful for this group. The Non-Purists also avoid solitude, so they are likely to visit in larger sized groups, and perhaps some might travel in tour buses. If visitors are not in a tour, they might want to access information on safety, travel tips, social activities and the history of the place. If they are part of a tour, they are likely to follow the tour guide’s instructions.

5.1.2 The Neutralist Purist’ information needs

Visitors who belong to the Neutralist Purist group show similar wilderness perceptions than the Non-Purists, with a few exceptions. For instance, the Neutralist Purists consider solitude in the wilderness as positive, whilst hydroelectric
development and motorized travel as negative. The have a neutral perception of commercial recreation facilities. It suggests that Neutralist Purists are open to experience the wilderness by themselves, or perhaps in smaller groups, resting in well-maintained facilities but with average commodities, and undertaken longer walks than the Non-Purists. Perhaps Neutralists might be more experienced trampers and have stronger ecological values than Non-Purists. Neutralist Purists might consult similar type of information as Non-Purists. However, as Neutralists might be travelling by themselves and experiencing the wilderness in a more adventurous way, they might appreciate more detailed information regarding safe travel tips, weather forecasts, accommodation options, and up-to-date reports from other travelers who have stayed in DOC campsites or huts in the past. Information on signage as well as on mobile devices might be very useful, especially during tramping. This group might wish to stop in isolated spots and hard-to-access shelters for resting, eating and sightseeing (see fig. 5.2).

Figure 5.2. Possible Neutralist Purists encountered in Arthur’s Pass
5.1.3 The Moderate Purist’s information needs

Visitors who fit in the Moderate Purist group have similar perceptions to the Neutralist Purists, but they avoid developed campsites, commercial recreation areas, and are not as interested in searching for exotic flora and fauna. Moderates have a neutral perception of hunting. Detailed information about huts, or other accommodation facilities with a very basic level of comfort, as well as information about options for self-exploration in the wilderness might be useful for them (see fig. 5.3).

Figure 5.3. Possible Moderate Purists encountered in Arthur’s Pass

Moderate Purists that stay in a hut are likely to leave some of their printed material, or register their feedback in the visitors’ book for others visitors to review. They might prefer not to carry heavy material while tramping and might appreciate the opportunity to share valuable information about their experiences. They may want to access and share time-sensitive information from a mobile device, such as a smartphone. The fact that Moderates avoid wasting printed material suggests they have stronger ecological values than the other Purist groups I discuss above.
5.1.4 The Strong Purist’s information needs

As I mentioned in earlier chapters, it was difficult for me to find visitors who might belong to the Purist group. However, existing research suggests what the needs of the Strong Purists might be (see Table 2.1 in chapter 2). The Strong Purists show negative perceptions for most of the indicators in Table 2.1 (12 of 16 items), especially for those relating Artifactualism. Strong Purists avoid developed campsites, well-maintained facilities, commercial recreation, road access, motorized travel and activities that might endanger the wilderness and its natural inhabitants, such as hunting. Little human impact, remote and large natural areas, as well as solo recreation show positive perceptions.

In Figure 5.4, I show a digital collage that represents the diverse needs of information for each of the group that I discuss in this section, using images of visitors that I photographed at Arthur’s Pass. I have been able to determine what strategies would suit best my design interventions by establishing what information might be relevant for the WPS visitors groups. The aim is to reinforce their interest in sharing information, engaging in alternative nature-based activities, and other interests as determined by the findings of my research.
Figure 5.4. Detected preferences of information for each Purist group
5.2 An examination of the DOC Website

In this section I present an analysis of the information available on selected DOC webpages that relates to Arthur’s Pass National Park. This analysis highlights the type of content available, how it is presented, and how well it is tailored to the needs of the various user groups. It also takes into account important findings related to expectations, levels of satisfaction and the experiences of visitors in wilderness areas, as I discussed in earlier chapters.

5.2.1 The Department of Conservation Home Page

The DOC Website’s Home Page includes approximately 38 links. Of those links, six are located in the Navigation Bar (Header) and are repeated in the Main Body of the Page. These links are: “Parks and Recreation”, “By region”, “Conservation”, “Getting involved”, “About DOC”, and “Publication”. Below each link there is a brief description of its content. The Navigation Bar remains the same in all webpages of the Site. The footer contains seven links, including “Feedback”, “FAQ”, “Blog”, “About this site”, among others. The footer remains the same all through the Website (see fig.5.5).

The sub navigation menu includes 26 links. Most of the links on the left hand side of this menu connect to DOC news about conservation areas and other DOC news. The right hand side connects to four subsections: “Book Online”, “Quick Links”, “New on the site”, and “Be part of it”. Three of these subsections have at
least five links each, as follows:

- “Book Online”, for booking Great Walk, campsites, huts and more.
- “Quick Links”, connects to information about jobs at DOC, Great Walks, weather, hunting, and business concessions.
- “New on the site”, with links to DOC articles.
- “Be part of it”, connects to information about DOC conservation projects available in the DOC’s Conservation blog, and to external social networks such as: Twitter, Facebook, Flickr, and You Tube. This section also has a “Subscribe to What’s up DOC?” link (DOC Website: “DOC Home Page”).

![Figure 5.5. The DOC Home Page includes a large number of links (“DOC Home Page”)](image-url)
As described above, the Home Page has a large number of links. This might make it difficult for visitors to make quick decisions about what information might suit their needs. Simplifying and categorizing information would make it easier for users to follow the shortest route to the information they actually need, without having to follow irrelevant. Anybody who visits the DOC Website should be able to locate the categories of information that they need within a few seconds.

Most of the content available in the DOC Home Page is in plain text. In total, I observed only seven images. Six of them are in the Main Body and connect to the six sections listed in the Navigation Bar menu. Those sections include the “Parks and Recreation” and “By Regions” links, which might contain information on Arthur’s Pass and, therefore, might be the first navigation options for intending visitors to follow. I tried the “By regions” link first, thinking that it would be easier to find Arthur’s Park among national parks of the South Island. This link connects to the “By regions” page (see fig. 5.6), which also shows a large number of links to information about both the North Island and South Island, making it difficult to choose the appropriate route. I assume that, for international visitors or browsers who are unfamiliar with the New Zealand Geography, navigating through this page would be difficult.
5.2.2 The Parks and Recreation webpage

After reviewing the “By Region” webpage, I came back to the Home Page and followed a link to the “Parks and Recreation” webpage. The main body of this webpage presents eight links, each one accompanied by with images and a brief description: “Tracks and Walks”, “Places to stay”, “National Parks”, “Places to visit”, “Activity Finder”, “Hunting”, “Plan and Prepare”, and “Easy Tips”.

Highlights links, such as Great Walks or a relevant new DOC article, can be found...
below this menu of options. On the right hand side of the webpage is located the sub navigation menu, which contains links to “Weather”, “Learn More”, “Safety” and “Contacts” (see fig. 5.7). These links are available in all the rest of pages I analyze in this chapter. Of all the links available in this webpage, I assume that “National Parks” will connect me to information on Arthur’s Pass, so I chose to follow this link (DOC Website: “Parks and Recreation”).

Figure 5.7. Screenshot from the Parks and Recreation webpage

(“Parks and Recreation”)

Overall, this was the first time during my navigation of the DOC Website that I found information that could be of interest to visitor to Arthur’s Pass, such as places
to visit, activities and planning. However, I wonder if those links will connect to other pages with, again, a large number of links. At this stage, I wonder if other users would take the risk of wasting more time following links.

The DOC Website has a Search option located in the top right hand side of all page’s Header, which I used to find information on Arthur’s Pass. It is worth mentioning that if users decide to use the Search option, instead of following the links, as I did, they would find that it is still difficult to locate specific information about Arthur’ Pass. Due to the DOC Website containing valuable data from many research projects and publications, as well as from conservation projects and news on Arthur’s Pass and other DOC areas, the quantity of information found by using the Search option is quite extensive. For this reason, it would be best to separate the information for two main categories of users: “Researchers” and “Visitors”. The first category might include information on DOC publications, research, and conservation projects. The second category might include basic information about nature-based recreation in DOC wilderness areas. The “Visitors” category might also be further broken down according to the WPS’ needs of information, which I explain below.

5.2.3 The National Parks webpage

Figure 5.8 outlines the content of the “National Parks” webpage, which is relatively easy to read and quick to follow. The Main Body includes links that connects to the New Zealand National parks. This menu does not display the names
in alphabetic order, nor does it categorized them into North and South Island groups. Next to this menu, a large New Zealand map is displayed, which points out the locations of all national parks, making it easier for users to identify which parks are located in each island (DOC Website: “National Parks”). At the moment, this map highlights locations when the cursor rolls over each park area, making it easy to identify locations. I suggest that this map should also include interactive information on distances, to help visitors to plan a longer trip, which might include visiting more than one national park.

![National Parks map](image)

*Figure 5.8. Map available in the National Parks webpage*  
(“National Parks”)
Maps as well as brochures or route guides are common printed resources that are consulted by visitors during planning and driving to the site. For this reason, I suggest that the DOC Website includes links to information resources that can be printed, shared and stored on mobile devices. In addition, maps, pamphlets and other printed material could include QR Codes (see fig. 5.9). These are printed or screen-based design elements that enable mobile devices to access a website by scanning the code, rather than by keying in a long, complicated URL. Such codes, which could link to particular pages on a Website, could be printed on a poster, brochure, or other printed material. This could be especially attractive for young adult tourists, who are more likely to use modern technologies, including smartphones.

Figure 5.9. Example of a QR Code for a travel Website

5.2.4 The Arthur’s Pass National Park webpage

Figure 5.10 shows the main body of the Arthur’s Pass National Park Page, which contains a Navigation Bar that includes the links Intro, Features, Activities, Places to stay, and Plan and Prepare. These links are repeated in the Main Body of
the Page accompanied of their correspondent small images.

The main body also includes an introduction to Arthur’s Pass, accompanied by a medium-size image, as well as the “Highlights” section on the bottom of the page. This time, each “Highlight” link is accompanied by its correspondent small image, which indicates to users what they would find if they click on each link. Finally, as well as the usual links (“Weather”, “Learn More”, “Safety”, and “Contacts”), the sub navigation in all webpages related to the Arthur’s Pass section (“Features”, “Activities”, “Places to stay”, and “Plan and Prepare”) includes links to Arthur’s Pass National Park walks guide and the General Policy for national parks under the title of “Publications” (DOC Website: “Arthur’s Pass National Park”).

![Screenshot from the Arthur’s Pass National Park webpage](image)

*Figure 5.10. Screenshot from the Arthur’s Pass National Park webpage* ("Arthur’s Pass National Park")
I observed that webpages for other Conservation Estate areas have similar information on natural features, sites of interest, accommodation and activities. The use of interactive information, including pop-ups, medium or large size images, and sounds from the natural environment would be useful additions.

During my investigation, I found that visitors were attracted to images on signage, on printed resources and on the Internet. In the design of material to promote Arthur’s Pass in the future, I suggest that a greater proportion of images be used, with less text and fewer links. Such images should show the natural features that can be encountered in Arthur’s Pass, and include photo documentation of other travellers’ experiences (see fig. 5.1.1). The social component of information is very important, and individuals who are planning a visit are likely to be interested in stories and images of other travellers’ experiences. Including images on the website that have been taken by visitors, like the ones shown in Fig. 5.1.1, documenting what they have seen or done can be a very effective way to attract others to experience these places themselves.
Images of natural features illustrating tracks, alternative activities or places to visit

Images of other visitors interacting with nature, illustrating conservation projects, planning a trip, or recording experiences

Images of visitors consulting maps or signage, illustrating map usage, safe travel tips, places to stay, facilities or overnight accommodation

Figure 5.11. Example of images that could be used in the DOC Website
5.3 Redesigning the Arthur’s Pass Website Section: Structure and initial ideas

At the moment, the content of the DOC Website is composed of a wide variety of information, from DOC publications and research to conservation projects to information about places to visit in all across New Zealand. The redesign of the entire DOC Website, taking into account different visitors’ information needs during every stage of their visit, would not be a simple process. For this reason, I am proposing the design of a parallel Website for Arthur’s Pass National Park that responds to the needs that I discovered during my investigation. This new Website could be linked to the current DOC Website, giving users the option of visiting this trial version for a short period of time, perhaps six months, before any changes are made to the original Website. In Appendix T, I present a selection of initial sketches.

For the new Arthur’s Pass Website, I also take into account the increasing use of new mobile technologies, such as smartphones. Although I have not designed a smartphone application, I have tried to implement some of the interface and interaction design elements of mobile devices in my prototype. Not only should this increase the usability of the Website, but it will also make it easier to develop compatible mobile applications at a later date. The suggested Arthur’s Pass Home Page includes only a small number of links, which results in an interface not unlike what we are familiar to see on iPhones and other mobile platforms. I propose the use of icons as graphic links, in combination with text-based links. Each link connects to
the following information categories: “Natural features”, “Activities”, “Weather”, “Clothing”, “Maps & route guides”, “iSite Visitor Centre”, “Accommodation”, “History”, and “Safety information”. I also include a visible “Research & projects” link that redirects users to formal DOC studies, published documents, and conservation projects, which are of more interest to researchers than to the average Arthur’s Pass visitor (see fig. 5.12).
Figure 5.12. Initial draft of the Arthur’s Pass Home Page
Each main category link has its own submenu, which is displayed as a pop-up. The use of pop-ups is an alternative way of showing visitors their navigational options, avoiding the presence of a large number of static links that can overwhelm the viewer. Each category of links and pop-ups is colour code (similar to the design of many printed guides, such as the Lonely Planet), for easy identification of each information section (see fig. 5.13). If visitors are not interested in the main category link, they are unlikely to be interested in the related submenu, so it is unnecessary to show all the options on the screen at once.

At an early stage of the design process, I was in doubt about the types of graphics are most appropriate for the design of the links. Icons are simplified graphics that are very legible, even at reduced sizes. This is one of the reasons why they are commonly used in signage. On the other hand, photos correspond to the way that visitors record memories of their experiences. Photos also are shared and compared between visitors, which provokes a stronger connection and identification with others as well as with the environment. On my initial sketches I used both types of graphics as links. In my final prototype, I avoided the use of photos as graphic links, because they are harder to read at reduced sizes, and because they can be too specific in their references.
Figure 5.13. Initial draft of the submenus (as pop ups) for each information category
Visitors also have the option of configuring the screen by hiding or dragging links into the sub navigation menu on the left hand side of the screen, according to their information preferences (see fig. 5.14). By selecting only the information icons that are important to the user, it is easier to revise and reorder them later. The process is not unlike the common practice of moving and reordering icons on a smartphone or digital tablet. In most cases, the information provided by DOC is more likely to remain intact for long periods of time, either because the content is unlikely to change, or because DOC cannot afford to make frequent updates to the official content on the Website. Examples of ‘permanent’ DOC information might include: the location of amenities and accommodation facilities, hut fees and bookings, and a history of Arthur’s Pass. At the moment, the current DOC Website includes a Conservation blog, which is updated from time to time, but not as frequently as visitors might expect. Separating time-sensitive information from more static DOC data helps users to organize the information that is most relevant to them.

Our increasing experience with social networks shows us how the latest information can always be available by enabling large numbers of users to contribute updates in real time. For this reason, the DOC Website should make the most of connections with external networks such as Facebook, Twitter, Flickr, and You Tube. I propose that the DOC Website include two sub navigation menus, one on each side of the screen. The first (on the left hand side), contains information
provided by DOC; the second (on the right hand side), connects to external social network media. This clearly separates information that is top-down, static, and “formal” from information that is bottom-up, current, and “informal”. Figure 5.14 shows an example of the sub navigation menus in the “Activities” webpage.

Figure 5.14. The left side menu incorporates the DOC info, while the right side menu includes info provided by external social network media.
Providing links to external social network media on the Website could save DOC staff time and effort that can be contributed by visitors who can upload content both during and after their visit to Arthur’s Pass. Individuals can easily use external online services to share photos, videos, travel stories, and reviews without compromising the “official” Arthur’s Pass Website content, or confusing users about “who is speaking”, and whether or not the information is “official” (from DOC) or “unofficial” (from external parties). By embedding live content from social media sites, DOC does not have to go to the trouble of creating separate applications of their own to allow users to upload content. Also, it makes sense to take advantage of existing social media sites that already have a large user base. Visitors are unlikely to begin using a new DOC-specific service, if they are already in the habit of using Twitter, YouTube, or other social media services.

Appendix U shows the “Accommodation - Huts” webpage, which contains DOC and social network information, as well as ideas for information about the huts. Huts are one of the resources that produce income for DOC, so it is important that visitors can learn as much as possible about this accommodation option. Information on how a hut looks inside, what activities can be performed inside or close to the hut, and other visitors’ reports about their hut experiences should be included in this webpage.

I also recommend enhancing visitor’s information experiences by including a history of Arthur’s Pass. By using external educational networks, such as
historypin.com, visitors can learn about the history of the place. Historypin is an online education project that presents photo documentation of geographically situated experiences by using large scale global maps (Historypin Website: “Historypin Home Page”) (see Appendix V). The photos document events that have taken place at specific times in the past, allowing users to learn about the history of a place, as well as some background about the culture and people that were involved in past events. The Arthur’s Pass Website could include a link to this network, redirecting users to the specific Arthur’s Pass section. Similarly, in order to build documentation for the travel journey, the Website could take advantage of external networks that already offer this type of service, perhaps something similar to the Trip Journal iPhone application (see Appendix W).

I will now proceed to discuss the content of the “Activities” information category. This content involves four subcategories of activities: “Land-based sightseeing”, “Bird watching”, “Alternative activities” and “Walks”, with their corresponding submenus. During my investigation, I observed that most visitors relied heavily on maps, as well as on the information found in the iSite Visitor Centre. For this reason, I include links to maps in each subcategory. I also suggest including a link to the iSite Visitor Centre, where appropriate, across the entire Website (see fig. 5.15).
Figure 5.15. The “Activities” category and its submenus

Figure 5.16 outlines the submenu for the “Walks” category. I recommend that each link include images of visitors walking in different parts of Arthur’s Pass. Each image should show the possible variations in numbers of travellers, including lone explorers, people walking in pairs, and people in small groups, so that different user groups are represented.
In specific situations, such as the planning of the itinerary, the selection of maps, or the choice of accommodation options, visitors might be overwhelmed by the amount of information and options. By providing information about their preferences, the system will be able to narrow the options that are visible. For this reason, I designed four questionnaires based on the type of information most often consulted by visitors during their pre-planning phase, which includes activities, walks, accommodation, and maps. Each questionnaire includes four questions related to visitors’ expectations, preferences for features and facilities, their travel companions, and their length of stay. Some of these are indicators of the WPS used
in the study of properties and perceptions of wilderness (see fig. 5.17 - 5.19).

Depending on the information gathered from visitors, the Website will display options that best suit their current information needs. The data received will also be helpful for DOC to categorize visitors according to the WPS. For example, if visitors prefer to consult information on solo recreation and huts, they are likely to belong to the Moderate Purist group. By contrast, those who consult information about restaurants, iSite Visitor Centre, and short walk, are more likely to belong to the Non-Purist or the Neutralist Purist groups. Although one of these choices alone is not a reliable predictor of the WPS category they might belong in, several choices will provide a reasonable indication. Once users are categorized according to the four-category WPS method, the Website can display information that is most likely to appeal to their user group.
Figure 5.17. The questionnaire is displayed as a pop-up at the right side of the screen.
Figure 5.18. “Activities” (top) and “Activities -Walks” (bottom) questionnaires
Figure 5.19. “Accommodation” (top) and “Map & Route Guides” (bottom) questionnaires
5.3.1 “My Backpack” and “My Album”

Once users have set up an account (which I have called “My Backpack”) and have saved their personal preferences, they can store the online information that they consulted during the different stages of their visits. This information can be edited, printed or shared at any time. For visitors who do not have a smartphone or access to a Web browser, the iSite Visitor Centre could have Web-enabled smartphone available for rent, as well as battery packs.

The “My Backpack” account includes five links that enable visitors to categorize the information they store, from expectations and initial travel ideas, to specific data related to their itinerary. These links are: “My Balance”, “My Itinerary”, “My Notebook”, “My Bookmarks” and “My Maps” (see fig. 5.20). “My Balance” includes information on fees, bookings, and purchases made using the Website. “My Itinerary” stores ideas for planning the visit, as well as the final decisions. “My Notebook”, includes ideas and experiences gathered during the visit. “My Bookmarks” and “My maps” store useful travel information that could be reviewed anytime without using an Internet connection. I also suggest that “My Backpack” account stores the photo documentation (including captions) of visitors’ recorded experiences in “My Album” (see fig. 5.21).
Figure 5.20. The “Backpack” contains the personal information inventory.
Figure 5.21. Contents of the “My Backpack” account
5.3.2 Sharing experiences and feedback

As I commented earlier, visitors to Arthur’s Pass enjoy sharing their experiences and feedback, as well as documenting their visits with photographs. Like the use of photos in social network media, or the use of text messages on cellphones, word of mouth is the way visitors expressed themselves and shared their experiences immediately during and after their visit. Visitors also placed their feedback by filling out questionnaires, leaving comments in the visitor’s book in the huts, and by posting letters to the iSite Visitor Centre. Visitors often wrote lengthy comments about their experiences, which in some cases included photos and drawings. I sketched some ideas on possible ways that visitors could share information and deliver their feedback online, which I present below.

5.3.2.1 Panel board

It is possible to enable visitors to post immediate feedback as they go through the park, if they are able to access the Website on a mobile device. My first sketch shows how a short questionnaire would appear on the screen, in this case in the form of a sign. The questionnaire includes two questions related to what visitors liked the most and the least about Arthur’s Pass (see fig. 5.22). The feedback gathered from this questionnaire might include visitor’s comments about activities they undertook, the use of basic facilities and the information encountered on site. This idea is similar to the traditional process of filling in a feedback form, but I wanted to explore other ways of obtaining feedback from visitors in a friendlier
manner.

Figure 5.22 Screen-based questionnaire contained in a sign

5.3.2.1 Virtual postcards

My second idea was to create an application in which a kiwi holds a postcard in its beak while visitors are writing something about their experience on it. This application enables visitors to design their own postcard by uploading their
favourite image (photo or drawing) from their computer or smartphone. (see fig. 5.23).
For visitors who do not have access to an image database, the application could include some postcard templates with photos of natural features, accommodation facilities, or activities undertaken, for visitors to choose from (see fig. 5.24). If visitors want to upload more than one photo or write down more than the limit allowed in the postcard, they could be redirected to the DOC Conservation blog, or to an external social network. All the postcards uploaded in will be delivered to the Arthur’s Pass iSite Visitor Centre, where they could be printed and displayed.

Figure 5.24 Samples of postcard templates
5.3.2.3 “My photo, my gallery, my experience”

My third idea was to enable visitors to submit their experience in Arthur’s Pass by using the “My photo, my gallery, my experience” application. This application enables visitors to submit their feedback by uploading an original photo that best communicates their experience in the park. First, the visitor uploads a photo file. Once the file is uploaded, a kea (or another bird that is found in the park) takes it and puts it into an envelope. Then, the kea flies to the “My gallery” area and delivers the envelope. “My gallery” consists of an image of hand-woven flax (similar to the one in the iSite Centre that I described in chapter 4 (see fig. 4.13)) that serves as a wall at a virtual exhibition gallery. Once the envelope is delivered in this area, the photo is exhibited on the virtual flax wall, together with the photos uploaded by other visitors. I present an initial sketch for this application below (see fig. 5.25).

In future, this idea could be included in the design of a DOC smartphone application, or as an interactive feature in the DOC Website. Visitors will be able to leave their mark using their own photo documentation. In this way, they will also be able to compare their experiences with other visitors’.
In Appendix X, I present, a sketch of an alternative application, “My signs on the track”, which could involve kids who are visiting the park. This application enables visitors to leave their comments about their experiences on virtual versions of the signs that they encountered on a specific track. The signs also include comments of other visitors, prompting the sharing and comparison of immediate feedback.
5.4 Redesigning the Arthur’s Pass Website Section: The prototype

In this section I describe the prototype of the redesigned Arthur’s Pass Website. This prototype includes some of the ideas I discussed in section 5.3, such as:

- The use of icons as links, with their correspondent colour code
- The submenus as pop-ups
- The left side customized sub navigation menu
- The connection with the external social network media
- The inclusion of questionnaires
- The collection of immediate visitor’s feedback
- The “My backpack” account and the “Album”

5.4.1 Information Categories

I designed 66 graphic links, one for each information category. Each graphic link has a square shape, similar to the buttons of a smartphone application. I chose to use this format in order to provide a more seamless link to future smartphone applications. Each link, as well as its submenu, is colour coded to facilitate easy recognition. These icons are a draft only, and would be refined in a final version. Figures 5.26-5.28 present the site map structures for several information categories, with their corresponding links. In Appendices Y and Y1, I show a selection of sketches of the design process.
Figure 5.26. The “Natural features”, “Activities” and “DOC Info friends” information categories
Figure 5.27. The “Map & route” information category includes links for the three stages of the visit: planning the visit, driving to the site and visiting the site.
Figure 5.28. Site map structures of the “Accommodation” and “DOC Videos” categories
I also integrated the processes for updating and delivering feedback that I mentioned earlier: the intervention of a local bird as ‘postman’, and the use of a ‘feedback exhibition gallery’ (see Figures 5.23 and 5.25 respectively). The “Feedback” information category enables visitors to submit their feedback online by using letters, stamps or postcards (see fig. 5.29).

![Site map structure of the “Feedback” information category](image)

*Figure 5.29. Site map structure of the “Feedback” information category*

I suggest the feedback gathered be also exhibited on a specific webpage, as well as printed and exhibited at the Arthur’s Pass iSite Visitor Centre. In that way, visitors to the iSite will be able to read the postcards they submitted and view other visitors’ postcards (see fig. 5.30). Whilst online, users can also request that DOC staff print and deliver their postcards, by making a small donation. This process is similar to the service offered by www.hazelmail.com, where users create customized postcards and send them worldwide, by paying a small fee (Appendix Z).
5.4.2 Navigation Menu

The main navigation menu of the proposed Arthur’s Pass Website is composed of sixteen information categories (links). On the Home Page, this menu is presented in four rows with four links each (see fig. 5.31). Users have two options; to either click on any link and start a traditional navigation, or customize the links they want to see, by dragging and storing them on the left hand side of the screen.

If visitors decide to follow a traditional navigation, the titled links on the main navigation menu will appear aligned in a main menu bar, at the top of each webpage. When the cursor rolls over each link in this bar, the graphic corresponding to each link will appear as a pop-up (see fig. 5.32).
Figure 5.31. The main navigation menu of the Arthur’s Pass Website
Users can also set up their main menu to the left side of the screen, even if they are using the aligned main menu bar. Figure 5.33 outlines a sample of how four links, from the main menu bar, are selected and dragged into the left side customized menu. The unselected links are stored in the “See hidden links” tab, and users can access these links at any time.

Figure 5.33, also shows the other Website navigation elements:

- The header and the footer are the same as the current DOC Website.
- The “History” menu bar, at the top right of the webpage, is where the graphic links of the webpages visited are stored automatically. Above this section, the “See hidden links” tab is located.
- The main menu bar, at the top of each webpage, which is only visible if users have not created a customized menu.
Figure 5.33. Website navigation elements, including the customized menu
• The left side customized menu contains information provided by DOC and selected by users. This menu is visible only if users create it.

• The right side sub navigation menu contains links to both the Arthur’s Pass blog (which I explain below) and external social networks. This menu appears in all the webpages.

• The tabs of the questionnaires appear as pop-ups. They appear in the right side of some webpages only. I explain this feature below.

• At the bottom section of the webpage, there is the DOC aid menu, which highlights information suggested by the DOC Website, based on an individual’s personal profile and their history using the site. This process is similar to the recommendations that appear to users in networks such as Trade Me or Google.

Appendix AA outlines the content of navigation elements I describe above.

In chapter 5.3 I discuss the content of the Arthur’s Pass Website, including both infrequently updated information (published by DOC), and frequently updated information (content from visitors coming in through external social networks, which are accessible links through links in the sub navigation menu). The DOC Conservation blog is an example of information that is not updated very frequently (posts seem to be published once every week or two). This blog contains posts by DOC staff related to the work done in the Conservation Estate, and these posts include a large amount of written information and related links. This blog currently
attracts very few comments, which suggests that it has few readers, a low level of engagement, or both. The role of a blog, as an alternative way of gathering information about visitor’s experiences, is important. I suggest that DOC set up an active blog for Arthur’s Pass, and link it to the Arthur’s Pass Website. Information provided through this blog should be current, interactive, and engaging. Similarly, the staff at the iSite Visitor Centre should contribute to the Arthur’s Pass Website by providing current information about activities, daily weather data, and information about huts and other amenities.

5.4.3 Pop-ups and questionnaires

Throughout the Website, the submenu links appear in a yellow pop-up, when the cursor rolls over each main link. If users decided to click on any pop-up, they will be redirected to its corresponding webpage (see fig. 5.34). The Website also has a group of four tabs that links to specific questionnaires. I designed four questionnaires (see chapter 5.3), one for each category: “Activities”, “Activities - Walk”, “Accommodation” and “Map & Route”. The questionnaire tabs will be displayed in the webpages corresponding to each of those categories, at the right side of the screen. Each tab has the same colour code as the webpage it relates to. For example, as orange is the colour code for the “Activities” webpage, the tab for the “Activities” questionnaire would also be orange (see fig. 5.34-5.36).
Figure 5.34. Sample of a yellow pop-up and the questionnaire tabs
Figure 5.35. The “Activities” (top) and “Activities - Walks” (bottom) questionnaires
Figure 5.36. The “Accommodation” (top) and “Map & Route” (bottom) questionnaires
5.4.4 “My Backpack” account

A backpack is the most common piece of equipment that visitors carry with them during their journey. The size and complexity of the backpacks vary according to the type of experiences visitors expect to have. Those who are intending to go on a short walk might not carry as many objects in their backpack as a more experienced tramper planning a longer walk might. Guidebooks, maps, and cameras are the most common elements that visitors list among their personal inventory. However, visitors also comment on the usefulness of other objects that they like to carry.

Due to its central role in the visitor experience, I chose to use the backpack as a metaphor in the design of the “My Backpack” account. As explained in chapter 5.3.1, the backpack is the virtual place where users store their personal information and inventory of digital artifacts and information. Users can add to, and edit, their selection once they have set up an account.

The first step in setting up the backpack account involves choosing a backpack profile photo from the Website’s image database. Visitors are likely to choose a virtual backpack with functionalities similar to the physical pack they might use while in Arthur’s Pass. The image database includes photos of a small daypack, a medium-size bag with wheels, an overnight bag, a tramping pack, and a kid’s backpack. The image chosen will inform DOC about visitor’s expectations. Figure 5.27 shows a sample of this image database.
While visitors are in Arthur’s Pass, they can change the backpack image in their profile settings. As well as showing the type of backpack they might be using, the image could also say something about the visitor’s experiences and travel companions (see fig. 5.38).

Figure 5.37. Sample of the backpack image database

While visitors are in Arthur’s Pass, they can change the backpack image in their profile settings. As well as showing the type of backpack they might be using, the image could also say something about the visitor’s experiences and travel companions (see fig. 5.38).

Figure 5.38. Images of visitors using a backpack
Once the profile image is set, users can start collecting information and save it into their backpack (most of the information will be in the form of saved Web addresses). To make it easier to organize the selected links, the backpack contains six empty file folders, or compartments: “My Itinerary”, “My Notes”, “My DOC Info Friends”, “My Trip Journal”, “My Personal Inventory” and “My Feedback” (see fig. 5.39).

![Image of backpack with compartments](image)

*Figure 5.39. The navigation menu of “My backpack” account*

To help users to determine in which folder(s) they should store their information links, each includes a brief description of the type of content it might
contain. When the cursor rolls over each folder, the description will appear as pop-up. The content suggested for each folder includes:

- “My Itinerary” shows the itinerary for the three stages of the visit, as a detailed list or as a waypoint map.
- “My Notes” includes general plans and notes for the trip.
- “My DOC Info Friends” contains maps, brochures, and route guides selected by users.
- “My Trip Journal” records the visitor’s experiences through photos, videos and as location points on a geolocation map.
- “My Personal Inventory” includes the information and artifacts taken on the trip, as a detailed list or as photo documentation.
- “My Feedback” contains the comments left by visitors in the form of text, images, audio, or video.

In order to make the process of collecting information enjoyable, I propose that “My Backpack” also enables visitors to customize their selection of graphic information links. On the Internet as well as on other mobile devices, we are familiar with images of products, services, and tools that have been designed to appear like smartphone icons (see fig. 5.40). “My Backpack” could take a similar approach, which would visually connect the Website to portable interface designs.
Figure 5.40 Images of products and services based on a smartphone icon designs

25 April 2012)
As I commented in Chapter 4, visitors enjoyed playing indoor games while resting in their accommodation and interacting with other visitors. While playing the “Wood sticks” game (see fig. 4.10) I was curious about what other games visitors could play that would help them to learn more about the park while they amused themselves. I did a brief online research and came across several popular games, such as card games, Domino and Scrabble. Of all of these games, I think that Scrabble could be used to further educational aims. Scrabble is “a word game in which two to four players score points by forming words from individual lettered tiles on a game board marked with a 15-by-15 grid. The words are formed across and down in crossword fashion and must appear in a standard dictionary” (Wikipedia Website: “Scrabble”). This led me to consider an option whereby the links of the information included in the virtual backpack be converted into virtual tiles (like those used in the Scrabble game). When visitors drag these tiles into their backpack, they could emit a sound. In Figure 5.41 I show a sample of Scrabble wooden pieces.
Figure 5.41 The handmade “smartphone” magnetics (right bottom) are similar to the Scrabble wooden pieces

(From top left to right bottom http://goo.gl/Y9kIM, http://goo.gl/nJUf0

25 April 2012)

I also suggest that the process of using the backpack could be explained through photos. The type of photos displayed will depend on the data gathered from users of the Website, and on the appropriate category (eg. Non-Purist vs Purist). In Appendices BB and CC I show a sample of images. Figure 3.42 outlines the site map structure of “My Backpack” account.
Figure 5.42. Site map structure of “My Backpack” account
During my online investigation, I found that visitors to wilderness areas like to upload photos of their experiences to blogs or other social networks (Appendix CC). If the Arthur’s Pass Website enables visitors to upload photos of the content of their backpack, we could gather a useful insight about visitors’ expectations and experiences in the park. Additionally, the Arthur’s Pass Conservation blog could include articles on how to pack a backpack, which might be of interests to a variety of visitors. Alternatively, the Arthur’s Pass Website could link to external blogs that specialized on information for backpackers, such as www.rie.com (see fig. 5.43).

Figure 5.43. Rie.com includes articles about how to choose and use a backpack
Chapter 6. Conclusions

Arthur’s Pass National Park includes extensive wilderness settings, many of which have remained undeveloped and unexploited. The Wilderness Perception Scaling (WPS) method has proven to be useful for my investigation as a way of thinking about how diverse user groups (e.g. Strong Purist vs. Non-Purist) engage with wilderness settings. It has also proved useful in analyzing their different information needs during the stages of their visit.

At an early stage of my research, I considered merging the four categories of the WPS into three: Non-Purist, Moderate Purist and Strong Purist, in order to simplify my research. However, as I mentioned earlier, it was very difficult for me to encounter visitors that might belong to the Strong Purist group. For this reason, I have used the categories as they are described in the WPS research, and I have left the study of the Strong Purist group for future researchers to take up.

During my investigation in the wilderness areas of the Conservation Estate that I visited, I detected a lack of accessible information that addressed the needs of diverse visitors’ groups as reflected in the WPS scale. The information that is available is inconsistent, and it varies in terms of its usefulness. The Department of Conservation (DOC) produces printed and online information that does not always match with the information at the DOC iSite Visitor Centres or with the signage located on roads and at the DOC sites. During the process of planning the visit,
driving to the destination, and visiting a specific site, visitors also had information needs that could be tailored to assist them in making immediate, location-based decisions based on their particular needs.

According to the studies and key statistics I discussed in chapter 2, as well as the findings of my pilot studies that I presented in chapter 3, information that is available on the Internet, through social networks media and by word of mouth influenced visitors’ decisions when planning a visit. Unfortunately, the DOC Website registers a low rate of usage and poor satisfaction ratings among both international and domestic visitors. This indicates that DOC’s online information is not tailored to suit the information needs of the individuals they hope to attract to wilderness parks. For this reason, I decided to propose a redesign of its content starting with the Arthur’s Pass section.

In chapter 4, I discuss the general information needs of international and domestic visitors to Arthur’s Pass National Park, which were categorized using the WPS method. Feedback gathered from visitors revealed that they would have planned a longer trip if they knew more about what options were available in Arthur’s Pass. It suggests that even though they enjoyed their visit, and would come again, improving the content of information sources could enhance their level of satisfaction and engagement. The DOC Website was the information resource least consulted by visitors.
In chapter 5, I present the prototypes of a parallel Website for Arthur’s Pass National Park that responds to the visitors’ information needs as determined by the literature review, direct observation and surveys. The prototype considers the visitors’ personal inventory, their desire to socialize, and their interest in sharing stories about their experiences with other visitors. It also considers the integration of media from social networking services and the use of mobile devices that enable visitors to upload, as well as access, information on location. My prototypes are a first step in what could be a much larger, ongoing effort to improve the provision of information to different user groups and individuals who visit national parks in New Zealand.

I conducted my investigation in three DOC wilderness areas of the South Island. These pilot studies helped me to shape the methodology, clarify the objectives of my research, and identify the most appropriate site — Arthur’s Pass National Park — for my larger study. However, future research could involve studies of different parks and the experiences of in particular users groups that I have not focused on — for example, immigrant communities, Māori, or children. As I discussed in earlier chapters, I did not manage to reach individuals who would fit in the Strong Purist group. This is not surprising, as they are not expected to be found in popular areas surrounded by other visitors and well-maintained facilities as in the areas I visited. This, too, presents an opportunity for future research that could seek out this WPS category and focus on their specific needs and expectations. Finally,
my design interventions include an initial effort to re-design a section of the DOC Website considering the use of mobile technologies. Further work in this area presents a tremendous opportunity for future researchers and designers who are interested in exploring the potential that mobile media offers for the delivery of information and the sharing of personal experiences.

The contribution of my investigation, which involves the analysis of visitors’ wilderness experiences as reflected in the WPS as well as the enhancing of information experiences with new mobile technologies, could be of interest for DOC managers as well as individuals in other institutions that are involved in the promotion of wilderness as experiences for visitors to the New Zealand’s Conservation Estate. By using new technologies and social network media, DOC also could engage young visitors with the wilderness by offering them new information experiences using the media they use. Further research could include following up on the finding of this work, in order to establish whether or not the suggested design interventions result in any changes in Arthur’s Pass National Park’s visitors planning and usage as well as engagement and satisfaction of visits in the long term.

Finally, this work hints at future possibilities for smartphone and other mobile media applications that could address the need for location-based and time sensitive information suited to different user groups. Mobile media can enable individuals to create and share, as well as download and use, information resources, in ways that
can reinforce the social component of wilderness experiences. This is especially important for the next generation of visitors to the Conservation Estate. If we want younger people to engage with wilderness environments, we should be using the technologies that they are using.
List of Works Cited


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Type of information *domestic* visitors look for before arriving. Website. (2008):


Type of information *international* visitors look for before arriving. Website. (2008):

Websites used by *domestic visitors* to find general information about the regions.


Websites used by *international visitors* to find general information about the regions.


Appendices

Appendix A. Template of the Information Sheet for participants

(NAME OF THE SITE)

(DATE)

Meeting the needs and expectations of different user groups for information about New Zealand’s Conservation Estate

INFORMATION SHEET FOR PARTICIPANTS

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. If you decide to participate we thank you. If you decide not to take part there will be no disadvantage to you of any kind and we thank you for considering our request.

What is the Aim of the Project? This project is being undertaken as part of the requirements for Carla Vieira’s Master of Design at Otago University. The general aim of this project is to gather information about how visitors to (NAME OF THE SITE) access and use information about the area.

What Type of Participants are being sought? Participants of this project will be adult visitors to the (NAME OF THE SITE).

What will Participants be Asked to Do?
  o Complete a survey, which should take less than 5 minutes.
  o Some participants may be asked if they can be photographed while using information in the park or visitors’ centre.
  o Please be aware that you may decide not to take part in the project without any disadvantage to yourself of any kind.

Can Participants Change their Mind and Withdraw from the Project? You may withdraw from participation in the project at any time and without any disadvantage to yourself of any kind.

What Data or Information will be Collected and What Use will be Made of it? The results of the project may be published and will be available in the University of Otago Library (Dunedin, New Zealand) but every attempt will be made to preserve your anonymity. You are most welcome to request a copy of the results of the project should you wish. The data collected will be securely stored in such a way that only those mentioned below will be able to gain access to it. The survey does not ask for any personal information (aside from country and city of origin). At the end of the project, any raw data on which the results of the project depend will be retained in secure storage for five years, after which it will be destroyed.

What if Participants have any Questions? If you have any questions about our project, either now or in the future, please feel free to contact the following individuals:

Carla Vieira, Master of Design student, Department of Applied Sciences, University of Otago
Phone: 03-454-2578     email: vieca072@design.otago.ac.nz

Dr Mark McGuire, Senior Lecturer, Department of Applied Sciences, University of Otago
Phone: 03-479-7156     email: mark.mcguire@design.otago.ac.nz

Dr Mick Abbott, Senior Lecturer, Department of Applied Sciences, University of Otago
Phone: 03-479-5796     email: mick.abbott@design.otago.ac.nz
Appendix B. Consent Form that participants signed

TITLE OF PROJECT:
Meeting the needs and expectations of different user groups for information about
New Zealand’s Conservation Estate

CONSENT FORM FOR PARTICIPANTS

I have read the Information Sheet concerning this project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I know that:

1. My participation in the project is entirely voluntary;

2. I am free to withdraw from the project at any time without any disadvantage;

3. I am free to ask that any still or moving images taken of me are not used and are deleted;

4. The data (including photos) will be destroyed at the conclusion of the project but any raw data on which the results of the project depend will be retained in secure storage for five years, after which it will be destroyed;

5. The results of the project may be published as part of the completed Master of Design thesis, which will be available in the University of Otago Library (Dunedin, New Zealand), but every attempt will be made to preserve my anonymity;

I agree to take part in this project

.................................................. ..................................................
(Signature of participant) (Date)
Appendix C. Top 30 nature-based activities undertaken by international and domestic tourists, 2008

<table>
<thead>
<tr>
<th>Activity</th>
<th>Visitors (000s)</th>
<th>Propensity (%)</th>
<th>Activity</th>
<th>Visitors (000s)</th>
<th>Propensity (%)</th>
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</thead>
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<td>Beaches</td>
<td>3,260</td>
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<td>Scenic Boat Cruise</td>
<td>554</td>
<td>25.0%</td>
<td>Fishing</td>
<td>1,533</td>
<td>3.5%</td>
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<td>Geothermal Attractions</td>
<td>500</td>
<td>22.5%</td>
<td>Hot Pools</td>
<td>982</td>
<td>2.3%</td>
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<tr>
<td>Lakes</td>
<td>481</td>
<td>20.8%</td>
<td>Bush Walk (1/2 Hour)</td>
<td>603</td>
<td>1.4%</td>
</tr>
<tr>
<td>Scenic Drive</td>
<td>445</td>
<td>20.0%</td>
<td>Scenic Drive</td>
<td>582</td>
<td>1.3%</td>
</tr>
<tr>
<td>Hot Pools</td>
<td>392</td>
<td>17.2%</td>
<td>Snow Sports</td>
<td>376</td>
<td>0.9%</td>
</tr>
<tr>
<td>Glacier (Walk/View)</td>
<td>325</td>
<td>14.7%</td>
<td>Surfing</td>
<td>307</td>
<td>0.8%</td>
</tr>
<tr>
<td>Sightseeing Tour (Land)</td>
<td>249</td>
<td>11.2%</td>
<td>Hunting/Shooting</td>
<td>358</td>
<td>0.8%</td>
</tr>
<tr>
<td>Bush Walk (1/2 Hour)</td>
<td>248</td>
<td>11.2%</td>
<td>Sightseeing Tour (Land)</td>
<td>352</td>
<td>0.8%</td>
</tr>
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<td>Glow Worm Caves</td>
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<td>10.2%</td>
<td>Trekking/Tramp</td>
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</tr>
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<td>10.2%</td>
<td>Bush Walk (1/2 Day)</td>
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<td>Canoeing, Kayaking, Rafting</td>
<td>280</td>
<td>0.6%</td>
</tr>
<tr>
<td>Trekking/Tramp</td>
<td>201</td>
<td>9.0%</td>
<td>Lakes</td>
<td>276</td>
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</tr>
<tr>
<td>Jet Boating</td>
<td>182</td>
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<td>Scenic Boat Cruise</td>
<td>263</td>
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<td>Waterfalls</td>
<td>178</td>
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<td>Mountain Biking</td>
<td>238</td>
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</tr>
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<td>Seal Colony</td>
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<td>7.4%</td>
<td>Scuba Diving/Snorking</td>
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<td>Snow Sports</td>
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<tr>
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<td>90</td>
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<td>0.2%</td>
</tr>
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<td>Whale Watching</td>
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<td>Sailing</td>
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</tr>
</tbody>
</table>

Propensity, or likelihood, is the proportion of all tourists that took part in the activity.

(Tourism Strategy Group Website 1, 2008)
Appendix D. Comparative map of the international, domestic and nature-based tourism market
Appendix E. Where *international* visitors found information before arrival

(Tourism Strategy Group Website: Where *international* visitors found information before arrival)

Appendix E1. Where *domestic* visitors found information before arrival

(Tourism Strategy Group Website: Where *domestic* visitors found information before arrival)
Appendix F. Type of information *international* visitors look for before arriving

(Tourism Strategy Group Website: Type of information *international* visitors look for before arriving)

Appendix Fl. Type of information *domestic* visitors look for before arriving

(Tourism Strategy Group Website: Type of information *domestic* visitors look for before arriving)
Appendix G. Websites used by international visitors to find general information about regions

(Tourism Strategy Group Website: Website used by international visitors to find general information about the regions)
Appendix G1. Websites used by domestic visitors to find general information about regions

(Tourism Strategy Group Website: Website used by domestic visitors to find general information about the regions)
Appendix H. What *international* visitors expected to find in regions

(Tourism Strategy Group Website: What *international* visitors expected to find in regions)

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Appendix H1. What *domestic* visitors expected to find in regions

(Tourism Strategy Group Website: What *domestic* visitors expected to find in regions)
Appendix I. What was important in *international* visitor’s decisions to visit regions

(Tourism Strategy Group Website: What was important in *international* visitor’s decisions to visit region)

Appendix II. What was important in *domestic* visitor’s decisions to visit regions

(Tourism Strategy Group Website: What was important in *domestic* visitor’s decisions to visit region)
Appendix J. Three most important international visitors’ travel needs

(Tourism Strategy Group Website: Relative Importance of ‘Being Environmentally Friendly’ in the mix of [3] most important travel needs - international visitors)

Appendix J1. Three most important domestic visitors’ travel needs

(Tourism Strategy Group Website: Relative Importance of ‘Being Environmentally Friendly’ in the mix of [3] most important travel needs - domestic visitors)
Appendix K. Average international visitor satisfaction - All measures

(Tourism Strategy Group Website: Average international visitor satisfaction - All measures)
Appendix K1. Average domestic visitor satisfaction - All measures

(The Tourism Strategy Group Website: Average domestic visitor satisfaction - All measures)
Appendix L. Pre-visit information consulted by visitors to New Zealand
Appendix M. Survey of the Catlins Conservation Park

1) Where are you from?

______________________________________

2) How long are you planning to stay in Catlins?

______________________________________

3) What was important in your decision to visit Catlins?

_________________________________________________________________
_________________________________________________________________

4) What did you expect to find in Catlins?

_________________________________________________________________

5) What type of information did you look for before arrive to Catlins?

_________________________________________________________________

6) Where did you find that information before arrive to Catlins?

_________________________________________________________________

7) Personal Inventory: What are the 10 most important things you bring with you for this travel? *

_________________________________________________________________
_________________________________________________________________

*NOTE: I asked visitors about their personal inventory to gain insight regarding their planned activities and the information aids they used.
Appendix O. Map (right side) most consulted by Sophia during driving
Appendix P. Panel boards at Porpoise Bay - Hector's Dolphin Area
Appendix Q. Survey of the Arthur’s Pass National Park

Meeting the needs and expectations of different user groups for information about New Zealand’s Conservation Estate

1) Where are you from? Please specify country
   - Asia   □ China      □ Korea      □ Japan    □ Other __________
   - Europe □ Germany    □ UK         □ Other ________________
   - America □ United States □ Canada    □ Other ________________
   - Oceania □ Australia □ New Zealand, please specify city ________________
   - Africa □

2) Is it your first time in Arthur’s Pass National Park?
   □ Yes     □ No

3) Who did you come with? If you came by yourself, please go to question 4.
   □ By yourself □ Friends □ Family □ Others ________________

4) How many people are in your group?
   □ 2-4 people □ 5-10 people □ more than 10 people

5) What were your main sources of information about Arthur’s Pass? Select all that apply.
   □ DOC Website □ Other Website □ Family/friends □ Guide/travel Book
   □ Brochure/map □ I-Site/Visitor Centre □ Agency □ Other __________

6) What type of information did you find in these sources? Select all that apply.
   □ Campsites □ Natural features
   □ Huts □ Other visitors’ experiences
   □ Road access □ Safe travel tips
   □ Transportation □ Trip’s planning: food, equipment, and booking
   □ Activities/attractions □ Other ________________
   □ Walking tracks

7) During your visit to Arthur’s Pass, where did you find information about the park’s features, activities or attractions? Select all that apply.
   □ Panel boards □ Signs □ Printed material □ Other __________

8) What type of information did you read or hear about? Select and specify all that apply.
   □ Suggested activities ________________________________
   □ Sites to visit ________________________________
   □ Sites to stay overnight ________________________________
   □ Natural features ________________________________
   □ History ________________________________
   □ Other ________________________________
9) To what extent did this information (from question 7) influence your decisions about what to do at Arthur’s Pass?

☐ Not much (please explain) ____________________________

☐ To some extent (please explain) _______________________

☐ Quite a lot (please explain) __________________________

10) What activities did you undertake in Arthur’s Pass? Select all that apply.

☐ Sight Seeing   ☐ Short walk   ☐ Half-day walk   ☐ 1-more day’s walk

☐ Camping       ☐ Climbing       ☐ Mountaineering ☐ Biking

☐ Backcountry hut stay ☐ Photography ☐ Bird watching ☐ Fishing

☐ Hunting       ☐ Other __________

11) Which of the following sentences best represents your experience in Arthur’s Pass National Park? Please choose ONE option.

☐ Low level of physical effort with access to car park, toilet, and short walks

☐ Overnight experience with basic toilet and camping facilities

☐ Two or more days experience walking on maintained tracks

☐ Prolonged contact with nature in isolation

12) What is your level of satisfaction with the whole experience that Arthur’s Pass provided to you? Please explain why.

☐ High, because______________________________________________

☐ Medium, because______________________________________________

☐ Low, because__________________________________________________

☐ None, because__________________________________________________

13) Do you have any other comments about your experience in Arthur’s Pass or recommendations about visitor information?

________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________

Thank you for completing this survey!
Appendix R. Pre-test of survey for Arthur’s Pass Investigation

Survey 1

1) Where are you from? Please specify country

☐ Asia ________________
☐ Europe ________________
☐ America ________________
☐ Australia ________________
☐ New Zealand ________________

2) Is it your first time in Arthur’s Pass National Park?

☐ Yes ☐ No

3) Are you travelling by yourself? If yes, please go to question 4. If not, please go to question 5.

☐ No
☐ Yes ☐ Friends ☐ Family

4) How many people came with you?

☐ 1 person
☐ 2-4 persons
☐ 5-10 persons

5) In which source did you find information about Arthur’s Pass National Park?

☐ Internet
☐ Brochure or map
☐ Guidebook
☐ TV
☐ Friends or family

6) What type of information did you find?

☐ Campsites
☐ Tracks
☐ Huts
☐ Commercial recreation
7) What activity are you looking forward to do in Arthur’s Pass National Park?

☐ Walking       ☐ Short walk       ☐ Half-day walk       ☐ One or more days walk
☐ Camping       ☐ Cabin           ☐ Tent              ☐ Landscape
☐ Picnic        ☐ Bicycling       ☐ Climbing          ☐ Other, please specify
☐ Photography   ☐ Birds           ☐ Plants            ☐ Hut
Survey 2

1) In which places did you find information during your visit in Arthur’s Pass National Park?

☐ Panel boards  
☐ Signs  
☐ Landmarks  
☐ Other

2) What type of information did you read about?

☐ Suggested activities ________________________________
☐ Sites to visit, please specify __________________________
☐ Sites to stay overnight, please specify __________________

☐ Nature  ☐ Birds  ☐ Plants  ☐ Landscape

3) How that information influenced in your activities in Arthur’s Pass National Park?

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

4) Which of the following sentences represent best your experience in Arthur’s Pass National Park?

☐ Instant immersion in nature  
☐ Low level of risk and safe facilities  
☐ Overnight experience in a predominant natural setting  
☐ Low risk comfortable experience  
☐ Sense of freedom, degree of risk and discomfort  
☐ Controlled risk activities as part of an exciting experience  
☐ Sense of freedom, prolonged contact with nature
Appendix S. Feedback gathered from the iSite Visitor Centre - Part 1
Appendix S1. Feedback gathered from the iSite Visitor Centre - Part 2
Appendix T. Selection of initial sketches of my design process
Appendix U. The “Accommodation-Huts” webpage and a sample of the DOC and social network media information.
Appendix V. Historypin outlines geographic situated experiences

(Historypin Website: “Historypin Home Page”)
Appendix W. Digital collage of screenshots of the Trip Journal iPhone app

(http://www.trip-journal.com/ 4 April 2012)
Appendix X. “My signs on the track” sketch
Appendix Y. Selection of sketches of graphic links - Part 1
Appendix Y. Selection of sketches of graphic links - Part 2
Appendix Z. Users can customize postcards and send them worldwide

(Hazelmail Website: “Hazelmail Home Page”)
Appendix AA. Content of the sections of the Arthur’s Pass Website
Appendix BB. People using backpacks

Appendix CC. Personal inventory included in a backpack