

2014-09-16

The Mountaineering Experience: Determining the Critical Factors and Assessing Management Practices

Benjamin, Mary Wilder

Benjamin, M. W. (2014). The Mountaineering Experience: Determining the Critical Factors and Assessing Management Practices (Master's thesis, University of Calgary, Calgary, Canada).

Retrieved from <https://prism.ucalgary.ca>. doi:10.11575/PRISM/28251

<http://hdl.handle.net/11023/1767>

Downloaded from PRISM Repository, University of Calgary

UNIVERSITY OF CALGARY

The Mountaineering Experience:
Determining the Critical Factors and Assessing Management Practices

by

Mary Wilder Benjamin

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF ENVIRONMENTAL DESIGN

FACULTY OF ENVIRONMENTAL DESIGN

CALGARY, ALBERTA

SEPTEMBER, 2014

© Mary Wilder Benjamin 2014

Abstract

Recreational mountaineering is a complex pursuit that continues to evolve with respect to demographics, participant numbers, methods, equipment, and the nature of the experience sought. The activity often occurs in protected areas where agency managers are charged with the inherently conflicting mandate of protecting the natural environment and facilitating high quality recreational experiences. Effective management of such mountaineering environs is predicated on meaningful understanding of the users' motivations, expectations and behaviours. This research explores the mountaineering experience through content analysis of mountaineering literature and key informant interviews to identify the critical factors that constitute optimal outcomes. These factors, the *7Cs of the Mountaineering Experience*, provide the means to assess how management practices in the Canadian Rockies, Scottish Highlands and European Alps facilitate or hinder the mountaineering experience. Research results inform unique, visitor experience-based recommendations for improved management of mountaineering in the Canadian Mountain National Parks.

Acknowledgements

There is a French proverb that says, “What is hard to endure is sweet to remember”. As I write this section, at the end of a long, arduous process, I am already beginning to recall the rewarding discoveries I have made along the way – discoveries about myself, my research topic and the wonderful people who have supported me. This is my opportunity to express my sincere gratitude to all those who provided their expertise, assistance, time, love and energy.

First and foremost, I would like to acknowledge and thank my supervisor, Dr. Michael Quinn for his consideration, expert advice, and patience and for encouraging me to turn my passion into a thesis. He exposed me to a realm of creative thinking and that excited me to develop the connections I present in this document. I would also like to thank Dr. Kathleen Rettie for her insight and thoughtful guidance. Finally, I would like to thank Dr. Zac Robinson, from the Faculty of Physical Education and Recreation at the University of Alberta, for serving as my external committee member.

This research would not have been possible without the participation and support of the following organizations: Alpine Club of Canada (specifically, the National Office and the Rocky Mountain Section), Parks Canada, Cairngorms National Park Authority, the International School of Mountaineering, Peak Mountain Training, the Mountaineering Council of Scotland, University of the Highlands and Islands: Perth Centre for Mountain Studies, Yamnuska Mountain Adventures and independent historians, journalists and climbers Chic Scott and Lynn Martel.

I will be forever grateful for my Mum’s unending help and encouragement. You probably know more about mountaineering than you ever wanted to and it must feel as though you’ve been to the top of Everest and back with me on this journey, without ever having put on crampons! I am so fortunate that you were there with me, through all the highs and lows. This thesis is dedicated to you. I am thankful for my Dad’s support, encouragement and understanding. Thank you for cultivating my love of the mountains. This may never have come to pass had you not taken me up Snowdon, the Devil’s Kitchen or Tal y Fan.

It was a pleasure to study with my grad student kin: Colleen Arnison, Kate Cawthorn, Jenn Redvers, Ben Borkovic, Sarah Friegang, Dani Koleyak, Meg Crawford and Meggy Pollock - I am forever indebted to you. You made school fun. You made my brain tick. To my Canmore crew: Cam, Shona, Murph, Leslie, Kendra, Joe, Nickie, Andrew, Gavin, Sky, Adam,

Julie, Faye, Lenka and Nika - thank you for your patience and support. At long last, we can go play in the mountains together again.

Jason – I cannot express how much your kindness, patience and encouragement has meant to me. Thank you for believing in me. I could not have climbed this mountain without you.

Table of Contents

Abstract.....	ii
Acknowledgements	iii
Table of Contents	v
List of Tables	x
List of Figures.....	xii
Abbreviations, Definitions and Important Terms	xiii
Abbreviations	xiii
Definitions.....	xiv
Important Terms.....	xv
Epigraph	xvi
Chapter 1 Introduction.....	1
1.1 Introduction.....	1
1.2 Purpose of Research	2
1.3 Research Question and Objectives	2
1.4 Background and Rationale	3
1.5 Relevance	5
1.6 Context Background: Three Study Sites	5
1.7 Scope and Scale: Delimitations and Limitations.....	9
1.8 Project Approach and Methods.....	9
1.8.1 Phase I: Determining the Critical Factors of the Mountaineering Experience	9
1.8.2 Phase II: Validation of the 7Cs and Study Site Assessment.....	10
1.9 Summary.....	11
Chapter 2 Literature Review	12
2.1 Social Science and Outdoor Recreation Management	12
2.2 Outdoor Recreation Management Planning	13
2.2.1 Dual Mandate.....	13
2.2.2 Three-fold Framework.....	15
2.2.3 Visitor Satisfaction, Expectations, Preferences and Trade-offs.....	15

2.2.4 Motivations for Recreation Participation.....	19
2.2.5 The Visitor Experience Cycle.....	22
2.2.6 Recreation Management Frameworks	23
2.2.6.1 Carrying Capacity	24
2.2.6.2 Specialization in Recreation	25
2.2.6.3 Recreational Opportunity Spectrum	26
2.2.6.4 Other Recreation Management Frameworks	27
2.2.7 Management Strategies and Actions.....	28
2.2.7.1 Information and Education	28
2.2.7.2 Use Rationing, Rules and Regulations and Zoning	30
2.3 Lived Experience.....	31
2.3.1 Phenomenology and Tourism	32
2.3.2 Optimal Experience and Flow	34
2.4 Mountain Recreation	35
2.5 The Mountaineering Experience	37
2.5.1 Influence on the experience: Sensation Seeking.....	38
2.5.2 Influence on the Experience: Personality Profile of Mountaineers	39
2.5.3 Influence on the Experience: Past Experience.....	40
2.5.4 Motives for Mountaineering	40
2.6 Implications for Management.....	45
2.6.1 Manage for Multiple Opportunities and Keep it Risky	45
2.6.2 Market the Experience and Build Relationships with Interest Groups.....	47
2.6.3 Infrastructure Solutions.....	47
Chapter 3 Evaluative Framework: The 7Cs of the Mountaineering Experience	49
3.1 Introduction.....	49
3.2 Narrative Literature Review.....	50
3.3 Methods.....	51
3.4 Results	52
3.4.1 Challenge	54
3.4.2 Control	54
3.4.3 Community	55

3.4.4 Context.....	56
3.4.5 Creative Opportunities	57
3.4.6 Catharsis.....	58
3.4.7 Chrysalis	59
3.5 Discussion.....	59
3.6 Summary.....	64
Chapter 4 Methods	65
4.1 Data Collection.....	65
4.1.1 Key Informant Interviews: Professionals and Experts.....	67
4.1.2 Key Informant Interviews: Intermediate Mountaineers.....	70
4.2 Data Analysis.....	71
4.2.1 Assessment of Study Sites' Provision of the Mountaineering Experience.....	73
Chapter 5 Results.....	74
5.1 The 7Cs of the Mountaineering Experience	74
5.1.1 Challenge	74
5.1.2 Control	77
5.1.3 Community	80
5.1.4 Context.....	84
5.1.5 Creative Opportunities	87
5.1.6 Catharsis.....	90
5.1.7 Chrysalis	93
5.2 Additional Considerations	95
5.2.1 Changes in Mountaineering Techniques, Culture and Ethos.....	95
5.2.2 Geographic, Jurisdictional and Cultural Differences.....	98
5.3 Current Management and Conditions: The Mountain Parks	102
5.3.1 Rogers Pass Winter Permit System.....	106
5.3.2 Area Closures, Restrictions, Quotas and Compliance	109
5.3.3 Infrastructure, Facilities, Signage and Trail Management.....	112
5.3.4 Visitor Experience	115
5.3.5 Overall Satisfaction and Strategies for Improvement.....	119
5.4 Current Management and Conditions: Cairngorms National Park.....	122

5.4.1 Land Reform (Scotland) Act 2003 and the Scottish Outdoor Access Code	122
5.4.2 The Cairngorms National Park Plan and the Outdoor Access Strategy.....	123
5.4.3 Outdoor Access Forum and Core Paths Plan.....	125
5.4.4 Action Areas	126
5.4.5 Management Actions, Responsible Use and Compliance	128
5.4.6 Fees, Infrastructure, Facilities, Waymarking and Path Maintenance	131
5.4.7 Search and Rescue and the Mountaineering Council of Scotland	134
5.4.8 Visitor Experience	135
5.4.9 Overall Satisfaction and Strategies for Improvement.....	136
5.5 Current Management and Conditions: The French and Swiss Alps	138
5.5.1 Access Rights, Restrictions and Closures.....	139
5.5.2 Infrastructure and Facilities	142
5.5.3 Overall Satisfaction and Strategies for Improvement.....	145
5.6 Role of Environmental Ethics in the Mountaineering Experience.....	147
5.7 Roles of Communication, Information and Education in Management.....	149
5.8 Role of Collaboration in Management.....	153
5.9 Summary.....	153
Chapter 6 Discussion and Recommendations	157
6.1 Validation of the 7Cs.....	158
6.1.1 Challenge	158
6.1.2 Control	159
6.1.3 Community	161
6.1.4 Context.....	162
6.1.5 Creative Opportunities	164
6.1.6 Catharsis.....	165
6.1.7 Chrysalis	166
6.2 Other Major Observations.....	168
6.2.1 The Behavioural Approach.....	168
6.2.2 Complementary and Contradictory Factors	169
6.2.3 Expectations, Preferences, Acceptance and Satisfaction	169
6.2.4 Assessment of Study Sites' Provision of the Experience	170

6.3 Possible Limitations in Methods.....	176
6.4 Recommendations and Implications	177
6.4.1 Management Actions	178
6.4.1.1 Challenge	179
6.4.1.2 Control	181
6.4.1.3 Community	184
6.4.1.4 Context.....	187
6.4.1.5 Creative Opportunities	192
6.4.1.6 Catharsis.....	195
6.4.1.7 Chrysalis	196
6.4.1.8 Summary	197
6.4.2 Management Enablers.....	201
6.5 Other Recommendations Considered	204
6.6 Barriers to Implementation	205
6.7 Summary.....	206
Chapter 7 Conclusion and Implications for Future Research.....	207
7.1 Objectives.....	208
7.1.1 Top 5 Recommendations for the Provision of the Mountaineering Experience.....	208
7.1.2 Top 5 Recommendations for the Fulfillment of the Parks Canada Mandate.....	209
7.1.3 Overall Top 5 Recommendations	210
7.2 Future Research	210
7.3 Summary.....	211
References.....	213
Appendix 1. Narratives Analyzed.....	227
Appendix 2. Interview Guides	238
Appendix 3. Interview Analysis Table Example	244

List of Tables

Table 1.1 Levels of the Behavioural Approach	19
Table 1.2 Recreation Experience Preference Scales and Domains.....	20
Table 2.1 Types of High-altitude Mountain Users in the Mont Blanc and Aiguilles Rouges Massifs.	37
Table 2.2 Mountaineers' Experience, Skill and Motivations, Classified by Skill Level.....	40
Table 2.3 Motives for High-Altitude Mountaineering.....	43
Table 3.1 <i>The 7Cs of the Mountaineering Experience</i> and their Components	53
Table 4.1 Key Informant Interview Participants: Professionals and Experts	68
Table 4.2 Key Informant Interview Participants: Intermediate Mountaineers	71
Table 5.1 EQ Types of Mountaineers	118
Table 5.2 Current Conditions in the Mountain Parks and the 7Cs	154
Table 5.3 Current Conditions in Cairngorms National Park and the 7Cs.....	155
Table 5.4 Current Conditions in the French and Swiss Alps and the 7Cs	156
Table 6.1 The final <i>7Cs of the Mountaineering Experience</i>	167
Table 6.2 Management Action Recommendation: Long Walk-in.....	179
Table 6.3. Management Action Recommendation: Limited Approach Trail Management	179
Table 6.4 Management Action Recommendation: Rogers Pass Permit System	181
Table 6.5 Management Action Recommendation: Party-size Restriction Permits.....	181
Table 6.6 Management Action Recommendation: Promotion of Responsible Use	182
Table 6.7 Management Action Recommendation: Guides' Office	184
Table 6.8 Management Action Recommendation: Parks Canada Visitor Safety Information Sessions.....	185
Table 6.9 Management Action Recommendation: Alpine Hut System.....	186
Table 6.10 Management Action Recommendation: Carry-out Backcountry Waste Management	187
Table 6.11 Management Action Recommendation: Minimal Signage.....	188
Table 6.12 Management Action Recommendation: Environmentally Responsible Alpine Huts	189
Table 6.13 Management Action Recommendation: Voluntary Area Closures	190
Table 6.14 Management Action Recommendation: Dashboard Information Hub	192
Table 6.15 Management Action Recommendation: Route Selector Chart.....	193
Table 6.16 Management Action Recommendation: Area and Tent Quotas	195
Table 6.17 Management Action Recommendation: Promote the Full Mountaineering Experience	196
Table 6.18 Access Management Recommendations and their Effects on the 7Cs	198

Table 6.19 Site Management and Environmental Concern Recommendations and their Effects on the 7Cs	199
Table 6.20 Communication and Engagement Recommendations and their Effects on the 7Cs.	200
Table 6.21 Management Enabler Recommendation: Outdoor Access Forum and Core Paths Plan	201
Table 6.22 Management Enabler Recommendation: The Area Concept	201
Table 6.23 Management Enabler Recommendation: Communication	202
Table 6.24 Management Enabler Recommendation: Collaboration and Mentorship.....	202
Table 6.25 Management Enabler Recommendation: Visitor Classification Systems	203
Table 7.1 Top 5 Recommendations for the Provision of Mountaineering Experience	209
Table 7.2 Top 5 Recommendations for the Fulfillment of the Parks Canada Mandate.....	209
Table 7.3 Overall Top 5 Recommendations	210

List of Figures

Figure 1. Map of the Canadian Mountain National Parks	7
Figure 2. Map of Cairngorms National Park	8
Figure 3. Map of Study Sites in the French and Swiss Alps.....	8
Figure 4. Example of Importance-Performance Analysis.....	18
Figure 5. Visitor Experience Cycle.....	22
Figure 6. The EQ Types Charted by Visitor Values	23
Figure 7. Tourist's Cycle	33
Figure 8. Complementary and Contradictory Components of the 7Cs.....	63
Figure 9. Key Informant Concepts: <i>Challenge</i>	76
Figure 10. Key Informant Concepts: <i>Control</i>	79
Figure 11. Key Informant Concepts: <i>Community</i>	83
Figure 12. Key Informant Concepts: <i>Context</i>	86
Figure 13. Key Informant Concepts: <i>Creative Opportunities</i>	89
Figure 14. Key Informant Concepts: <i>Catharsis</i>	92
Figure 15. Key Informant Concepts: <i>Chrysalis</i>	94
Figure 16. The Alpine Network of Protected Areas (ALPARC).....	101
Figure 17. Mountaineers on the Wapta Traverse, Crossing the Peyto Glacier.....	105
Figure 18. Winter Permit System Brochure.....	107
Figure 19. Ski Mountaineers Ascend the Head Wall of Rogers Peak	108
Figure 20. Parks Canada Party-size Restriction Signage Posted at Moraine Lake.....	111
Figure 21. Cairngorms National Park Action Areas.....	128
Figure 22. Fords of Avon Bothy Located Near Aviemore in CNP	132
Figure 23. Bureau des Guides, Chamonix, France	145
Figure 24. Levels of Organized Management of the Study Sites	174
Figure 25. Study Sites' Ability to Provide for the Optimal Mountaineering Experience.....	175
Figure 26. Conceptual Model of Study Sites' Provision of the Optimal Mountaineering Experience.....	175
Figure 27. Poo Pods and the Poo Project, Cairngorms National Park.....	188
Figure 28. Stone Pillar Signage, Snowdonia National Park, North Wales	189
Figure 29. Route Selector Chart for Selecting Trails in Yellowstone National Park	194
Figure 30. Mountain Biking Route Selector Chart in Moel Famau Country Park, North Wales, UK.....	194

Abbreviations, Definitions and Important Terms

Abbreviations

Abbreviation	Term
ACC	Alpine Club of Canada
ACMG	Association of Canadian Mountain Guides
BEES	Backcountry Energy Environmental Solutions
BFU	Banff Field Unit
BOS	Backcountry Opportunity Spectrum
CAA	Canadian Avalanche Association
CNP	Cairngorms National Park
CNPA	Cairngorms National Park Authority
CTC	Canadian Tourism Commission
EQ	Explorer Quotient
FFCAM	French Federation of Alpine and Mountain Clubs
FFME	French Mountaineering and Climbing Association
KI (s)	Key Informant(s)
IFMGA	International Federation of Mountain Guides Associations
IPA	Important-Performance Analysis
LLYK	Lake Louise/Yoho/Kootenay Field Unit
MCofS	The Mountaineering Council of Scotland
MCR	Mountain Conditions Report
MBA	Mountain Bothies Association
NP	National Park
OAS	Outdoor Access Strategy
PC	Parks Canada
RMS	Rocky Mountain Section (ACC)
ROS	Recreational Opportunity Spectrum
SAC	Swiss Alpine Club
SAR	Search and Rescue
SMEs	Subject Matter Experts
SOAC	Scottish Outdoor Access Code
UIAA	International Mountaineering and Climbing Federation
VAMP	Visitor Activity Management Process
VE	Visitor Experience
VEPDO	Visitor Experience Product Development Officer
VERP	Visitor Experience Resource Protection
VIM	Visitor Impact Management
VS	Visitor Safety

Definitions

Term	Definition
Backcountry	A term given to geographical regions of parks and protected areas that are generally remote, undeveloped, isolated or difficult to access. In more popular and accessible areas, there may be trails and designated campsites with amenities like outhouses. In more remote parts of a park, backcountry trails are not as well maintained and travellers may camp randomly or set up a bivouac.
Beta	Climbing jargon that denotes technical information about a route such as the climb's difficulty, crux, quality of protection, required equipment and contextual information about the route's terrain, length of approach, hazards etc.
Bivouac	A French term meaning temporary camps located in unvegetated areas above the tree line, for the purpose of climbing, often set up just off a route (Parks Canada, 2008a).
Bolt	"Permanent piece of artificial protection consisting of a threaded bolt that is placed into a hole drilled into rock" (Cox & Fulsaa, 2003, p. 564). Climbers clip carabiners, to which their ropes are attached, into bolts.
Experience	" <i>Philosophy</i> : the totality of the cognitions given by perception; all that is perceived, understood, and remembered" (Bisset, 2000). In the context of this study, this definition refers to the mountaineer's experience of his/her physical environment, place, and culture.
Mountaineering	Mountaineering includes a range of different activities such as rock climbing, ice climbing, bouldering, ski mountaineering, hiking, trekking, scrambling and glacier travel, in order to reach a mountain summit (UIAA, 2009). This type of recreational mountaineering is also known as 'alpine climbing', wherein the use of technical equipment is essential for either hands or feet (e.g., rope, harness, ice and mountaineering axe, crampons etc.) (The Mountaineering Council of Scotland, 2009). Often, mountaineering experiences are characterized by the hardships participants encounter (e.g., cold temperatures, exhaustion, snow-blindness, sunburn, altitude sickness, sleeplessness, hunger, fear and realization of that fear, in the form of accidents) (Loewenstein, 1999). For the purpose of this research, ski mountaineering is included in this definition. This refers to a skiing technique "used by climbers using hybrid equipment that allows free-heel ascent and alpine descent and that accommodates climbing boots; also known as alpine touring" (Cox & Fulsaa, 2003, p. 566). Note that recreational mountaineering, chosen as the focus for this research, is different from both competition climbing and speed climbing. These styles of mountaineering pit athletes against each other, or against the clock, in attempts to climb peaks or routes with the objective of winning money, prizes or titles. Note that terms 'climber(s)' and 'climbing' are used interchangeably with mountaineer(s) and mountaineering throughout this thesis. The term 'rock climbing' is used to denote purely traditional and sport rock climbing.
Mountaineer	A climber of mountains (The Mountaineering Council of Scotland, 2009).
Mountaineer (Intermediate)	For the purpose of this study, intermediate mountaineers will be described as having completed, or attempted, some summits independently (without a guide), using the technical skills of rock, ice climbing and glacier travel with the appropriate technical equipment, route finding abilities, and with an understanding of mountain weather patterns and avalanche condition recognition. "Experience levels can represent both factual and perceptual connotations in that an individual's level of experience can be related to the number and type of mountain climbs participated in, or be based solely on the perceptions concerning one's own abilities and skills" (Ewert, 1985, p. 242).

Important Terms

Term	Meaning
Communication	Refers to efforts made by park management to convey rules to visitors and encourage compliance.
Facilities and Infrastructure	Facilities refer to park facilities for visitor use including: human waste facilities, visitor information centres, Guides' Office etc. Infrastructure refers to physical interventions in a park landscape catering to visitor access including alpine huts, car parking lots, uplift (gondolas, téléphériques etc.) and installations (ladders, fixed ropes etc.)
Information and Education Campaigns	Information campaigns refer to the sharing of relevant information (route conditions, avalanche and weather forecasts) with mountaineers by parks management, whereas education campaigns aim to cultivate an understanding of responsible practices and recreational impacts among mountaineers.
Intermediates	Refers to the intermediate mountaineers, interviewed as key informants.
Mountain Parks	Refers to the Canadian Mountain National Parks: Banff, Yoho, Kootenay, Waterton Lakes, Mount Revelstoke and Glacier National Parks
Professionals and Experts	Refers to a category of key informants interviewed. Participants in this category emanated from four distinct groups: professional Mountain Guides; Parks and Land Managers such as Parks Canada and Cairngorms National Park staff; Interest Groups such as the Alpine Club of Canada and the Mountaineering Council of Scotland; and Subject Matter Experts.

*Mountains are the means, the person is the end.
The goal is not to reach the tops of mountains,
but to improve the person.*

- Walter Bonatti
Mountain climber, explorer and journalist

Chapter 1 Introduction

1.1 Introduction

During the 1950s and 60s, the formative years of outdoor recreation management planning, changes arising from human use of natural landscapes was deemed by most land managers as unacceptable (Field, Brown, & Burdge, 2011). The idea of including humans as integral parts of a landscape was foreign and seemingly contradictory to the preservation of ecological integrity (Manning, 2011). Social science research that followed in later years focused on the interaction between recreational visitors and their environment, highlighting the inherent conflict between them. Currently, recreational policy makers face a dual-mandate: to protect the natural environment while facilitating high quality recreational experiences (Ewert & Hollenhorst, 1997; Hammitt & Cole, 1987; Manning, 2011; Monz, Smith, & Knickerbocker, 2005). Managing outdoor recreation in a way that provides balance between the conflicting elements of the dual-mandate necessitates an understanding of the motivations for recreation participation and its resultant impact, by managers and researchers alike (Dearden & Rollins, 1993; Ewert, 1985; Manning & Anderson, 2012; Pomfret, 2006).

The recreational sport of mountaineering was chosen as the route to explore the conflicting obligations of agency managers.

If one considers the essence of mountain climbing: a deliberate intrusion into often dangerous, but beautiful terrain with hostile weather conditions, it seems reasonable to expect that... providing for these types of opportunities will be one of the challenges [of the land manager] in the future (Ewert, 1985, p. 249).

Mountaineers are part of a unique community of recreationists, worthy of research attention due to the fragile, high alpine environments in which they practice their sport (Dyck, Schneider, Thompson, & Virden, 2003). In addition, the mountaineering experience has been described as complex, multifaceted and paradoxical, often transcending the physical climb to reach profound levels self-awareness and satisfaction (Delle Fave, Bassi, & Massimini, 2003; Ewert, 1994; Johnston & Edwards, 1994; Loewenstein, 1999; Pomfret, 2006; Zuckerman, 1979). While climbing, mountaineers may experience contrasting feelings (e.g., sense of control and vulnerability) and, as a result, their expectations, preferences and desires are complex. Reasons for participation go beyond amusement or reward. The experience involves many elements and the composition of each mountaineer's experience is subjective.

Mountaineering is many things. It is climbing on ice, snow and rock, panoramic views and wilderness experience. For many, it is the fulfillment of childhood dreams; for others, an opportunity to grow in the face of difficulty. In the mountains await adventure and lifetime bonds with climbing partners. The challenge of mountaineering offers you a chance to learn about yourself outside the confines of the modern world (Cox & Fulsaa, 2003, p. 14).

Although mountaineering is recognized as a popular form of adventure recreation, there is limited research on which to base an understanding of its participants, specifically the key influences on their participation and/or the experience they seek (Nepal & Chipeniuk, 2005; Pomfret, 2006). Researching the motivations of mountaineers is important “because of the voluntary pursuit of risk, the lack of evident external rewards, and [its] non-utilitarian nature” (Delle Fave et al., 2003, p. 82). They are “a small number of unusual people” (Loewenstein, 1999, p. 317), who exhibit intricate relationships with their environment (Sleasman, 2004).

As land management policies are governed by mandates that provide users with appropriate recreational experiences, while mitigating against environmental, social and cultural impacts (Landry, 2009), an understanding of this experience is critical. However, there appears to be a gap in the knowledge of the complexities of the mountaineering experience and how they might be addressed in land management practices. The social, environmental and managerial conditions that influence the quality of the mountaineering experience have rarely been studied in detail. A small number of studies have examined the experience from a quantitative perspective and there exists a wealth of narrative mountaineering literature describing the desired experience, yet little academic research has linked the two. I hypothesized that an ethnographic and phenomenological understanding of the mountaineering experience would prove effective in the management of Canada’s National Mountain Parks, and ultimately provide for the optimal experience.

1.2 Purpose of Research

The purpose of this research was to develop a framework that outlines the critical factors of the mountaineering experience in order to allow for a greater awareness among recreation managers, thus resulting in improved management of, and provision for, the experience of mountaineers.

1.3 Research Question and Objectives

The research question that guided this project was:

What are the critical factors that influence the mountaineering experience and how can they best be provisioned for?

This project had three objectives:

- 1) To develop a list of critical factors of the mountaineering experience (i.e., factors that influence participation) that will act as an evaluative framework;
- 2) To apply these factors to an assessment of management practices at specific mountaineering locations: Canadian Mountain National Parks (Mountain Parks), Cairngorms National Park (CNP) in the Scottish Highlands and the French/Swiss Alps, in order to determine how the current social, environmental and managerial conditions affect the mountaineering experience; and
- 3) To make recommendations for the practical management of mountaineering in the Mountain Parks and discuss their implications, based on the critical factors discovered.

1.4 Background and Rationale

The sport of mountaineering emerged, according to some of the earliest recorded expeditions, in the 1300s (Johnston & Edwards, 1994). Documented expeditions of climbing mountains for pleasure, as we now know it began in the 1800s (Colonel, 2009; Dyck et al., 2003; Feher, Meyers, & Skelly, 1998; Kelly, 2000). In recent years, mountaineering has undergone considerable change not only in participant numbers, methods and equipment, but also climbers' desires and expectations. It has been suggested that mountaineering has evolved into an intricate combination of techniques and values that are often in conflict with each other. There appears, for instance, to be a discrepancy between desire and satisfaction among mountaineers, along with a perception of being able to control these competing factors that complicates their experiences (Loewenstein, 1999). These changes have altered mountaineers' relationships with their physical environment, with resultant environmental, social and cultural impacts on the world's mountain ranges and peoples.

It has been suggested that mountaineering experiences are a melding of elements of the climb, cultural surroundings, ecological factors, temporal differences and the majesty of the setting. "Research into mountaineering in Canada at the turn of the century reveals that technical climbing represented only a small portion of the total trip experience" (Kelly, 2000). This complex combination of motivations and desires goes beyond the physical aspects of the climb:

For a mountaineer, hardship and great effort hardly matters since the life of a mountain climber is an introduction to death, and when death comes or is about to come, the climber is at least partially satisfied...The paradox and incongruity lie in the fact that we willingly choose such risks when we so much want to stay alive. Why? Perhaps it all boils down to sensation – what we feel is all we really know; all we can accurately say we are. This isolates us. We hope that others also experience the same things because it keeps us sane and allows us to build a construct within which to live (Simpson, 2003, p. 129).

Although participant experiences may seem perplexing, mountaineers' distinct connection with their surroundings and their characteristic nature as socially aware, self-reflective travellers, present an interesting relationship worthy of further investigation.

Their experience...as critical actors in an emerging alpine ecotourism industry, illustrates some of the complex ways in which cultural values, social meaning and physical reality change when the human/nature relationship is [co-dependent] (Johnston & Edwards, 1994, p. 461).

However, little research has been done on the transformation of and management for the dynamic changes within the sport (Nepal & Chipeniuk, 2005). The first phase of this research addressed this information gap.

Recreation and tourism are among the largest international industries and mountain ecosystems are under increasing strain as a result (Ewert & Hollenhorst, 1997; Nepal, 2002). The dramatic rise in the number of people who are becoming involved in mountaineering is a growing concern for the managers of national parks and protected areas (Pomfret, 2006). Advancements in climbing equipment technology along with the industry's promotion of mountaineering (and related activities) as a new adventure recreation market have contributed to the sport's accessibility (Ewert & Hollenhorst, 1997; Simpson, 1997). At the same time, alterations in flight routes and the construction of access roads have changed high peak access all over the world and have made many sites less remote. "Increased accessibility, high-tech supports, and the development of a tourist infrastructure have placed thousands of people atop the peak in rapid order" (Johnston & Edwards, 1994, p. 464). The types of climbers, as well as their expectations, are changing as "summit fever" and "races to the top" become prominent elements of the recreation. Land managers, as well as climbing guides and mountaineering interest groups, need to be aware of these motivational changes and their resultant environmental and safety impacts as "implications for management of what are essentially open-access resources in many countries" (Hanley, Alvarez-Farizo, & Shaw, 2002, p. 174). In so doing,

mountaineering sites can be better managed to allow for greater management control, use and socialization opportunities (Ewert, 1985). This need is becoming increasingly urgent:

...given the current trend of increasing limits on the land manager, providing for these different types of opportunities will be one of the challenges of the [future]... homogeneous management policies for all areas will not be in the user's best interest (Ewert, 1985, p. 249).

Several studies have examined the effect of particular management practices on the mountaineering experience and alternative means of site management (Hanemann, 2000; Hanley et al., 2002; Martin, Marsolais, & Rolloff, 2009; Merrill & Graefe, 1997). The implementation of measures to increase access time, increase park entry fees, administer summit permits and car-parking fees, along with various other use rationing mechanisms have been seen to reduce some of the undesirable environmental impacts of climbers. The effects of these changes in management policies on the mountaineer's experience however, have not been thoroughly addressed. The second phase of this study addressed this issue.

1.5 Relevance

Key to the study of environmental design are concerns for the human environment, human perceptions, social constructs and cultural landscapes (Tyler, 2010). Understanding and managing for a human experience, therefore, agrees with the intended goals of a Masters degree, as outlined by the Faculty of Environmental Design.

The findings of this research will be of intrinsic value to several different organizations and individual people. The objective of the research was to produce meaningful recommendations that will be of use to practitioners. Mountaineers constitute a relatively small community of recreationists but this benefitted the research, as findings were sufficiently unique to advance knowledge in this field. The qualitative methods chosen to examine the mountaineering experience and associated management actions have not been widely used in this context.

1.6 Context Background: Three Study Sites

Interpretation of the mountaineering experience and associated recreational management plans are influenced by geographical region and cultural context. National parks and protected areas in the Canadian Rocky Mountains, the Scottish Highlands and the Swiss and French Alps each employ different recreational management techniques (Hanemann, 2000; Hanley et al., 2002). A comparison of the management practices in each of these areas allowed for comparison

of strategies and a better understanding of the type of experience that should be managed for.

The selection of geographic areas of study were based on several factors: 1) each location has a long history of mountaineering and a system of protected areas with management systems in place (the way in which each area manages the activity, however, is quite different), 2) literature on recreational management techniques and the user experience, although limited, is available for all three locations, 3) that I had travelled and climbed in these three locations provided an actual interpretation of the terrain, users and mountaineering experience, and 4) travel to the selected sites to conduct key informant (KI) interviews and collect ethnographic field data was feasible and realistic due to my professional connections with a number of mountain experts in these locations. Sites in the Himalayas and in South America were considered but it was decided that their context is so different from the sites listed above, that a valid comparison would be less achievable. Maps of the selected study sites can be seen in Figures 1, 2 and 3.



Figure 1. Map of the Canadian Mountain National Parks
Adapted from Parks Canada (2013a).

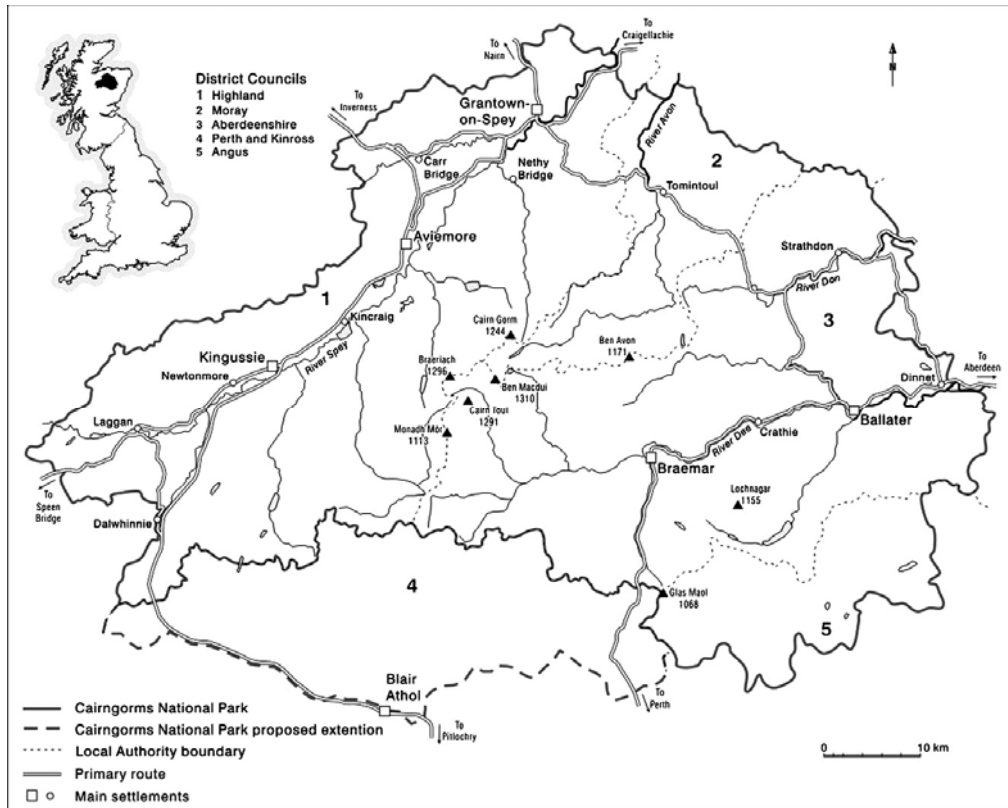


Figure 2. Map of Cairngorms National Park
Adapted from Stockdale & Barker (2009, p. 484)

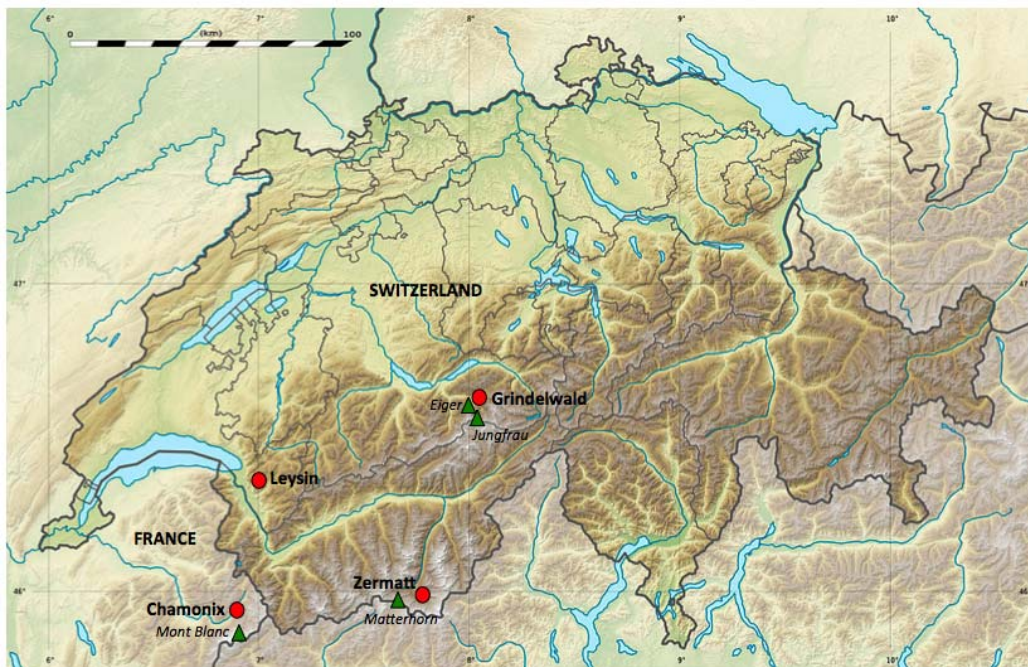


Figure 3. Map of Study Sites in the French and Swiss Alps
Adapted from Gaba & NordNordWest (2009)

1.7 Scope and Scale: Delimitations and Limitations

This research examined the experience of recreational mountaineers. Although rock and ice climbing are inherent elements of mountaineering, the experiences associated with them were not examined as separate fundamentals. The complex and enduring relationship that the mountaineering community has with its environment provided a more rewarding and fruitful study, in this format, than that of the rock and ice climbing communities.

Mountaineers, with their long-term relationships with specific regions and peoples, complex motivations structuring their presence and activities, and lengthy history as a distinct cultural community...involve themselves as active participants in structuring mutually beneficial relationships with mountains and mountain peoples (Johnston & Edwards, 1994, pp. 459-473).

Intermediate mountaineers were the main focus of the research. Studies have indicated that specialization levels of mountaineers reveal motivational differences (Dyck et al., 2003; Ewert, 1985; Weekley III, 2002). While beginner mountaineers are motivated by extrinsic factors such as recognition and socialization, experienced, elite and expert mountaineers are motivated by more intrinsic factors, such as challenge, personal testing and locus of control (Ewert, 1985). Beginner mountaineers are not always able to climb by themselves and often need the instruction of a guide. Experts, meanwhile, can have a different view of the balance between risk and reward hence personal peril is more easily overlooked. It was assumed that the bulk of mountaineers climbing in Canada's Mountain Parks for recreation fall within the 'intermediate' skill set; they are able to functionally climb by themselves and are working to improve their abilities, but their motivations have progressed to more intrinsic levels than those of the beginner. Given that park managers most often manage for the 'masses', it follows that an examination of the intermediate's experience would be of greater use than that of the beginner or expert.

1.8 Project Approach and Methods

This project was divided into two phases: Phase I) Determining the Critical Factors of the Mountaineering Experience, and Phase II) Validation of the 7Cs and Study Site Assessment. The outcome of Phase I determined the direction of Phase II.

1.8.1 Phase I: Determining the Critical Factors of the Mountaineering Experience

This phase was comprised of focused ethnography and phenomenological approaches. A framework of the critical factors of the mountaineering experience, based on complex human

experience data, was developed. Phase I included two steps of data collection: narrative literature review and a review of Chic Scott's data previously collected pertaining to some of Canada's elite mountaineers. A qualitative analysis of emergent themes was the main form of examination. Using Ewert's (1985) study as a basis for categorization of factors, the *7Cs of the Mountaineering Experience* became the result of this analysis process. The 7Cs stood as the evaluative framework for Phase II. Much of the literature on the mountaineering experience is found in popular works of non-fiction. It appears that writing about the details of one's trip and attempting to define the reasons for participation in the activity are a key part of the mountaineering experience (Loewenstein, 1999), which is why an examination of narrative literature was performed.

1.8.2 Phase II: Validation of the 7Cs and Study Site Assessment

Phase II included two types of KI interviews: 1) professionals and experts and 2) intermediate mountaineers (Intermediates). The intention of this division was to determine whether the management of the selected mountaineering sites was conducive to the critical factors outlined in Phase I. A further comparison of parks/protected area policies was made in order to evaluate any strategies that might be shared between the selected mountaineering sites. An evaluative approach was the main method for data analysis during this phase (i.e., manual content analysis). The 7Cs were used as an evaluative framework against which to assess the ability of the three study sites to provide the critical experience. Recommendations were made as to which management strategies would be most effective for Canada's Mountain Parks.

Methods of participant observation, field research and KI interviews are "appropriate when the research question involves learning about, understanding or describing a group of interacting people" (Neuman, 1991, p. 337). This first phase of my research involved just that: understanding the factors that affect the mountaineer's recreational experience. The decision to use multiple methods of data collection and analysis has been described as 'methodological pragmatism' (Neuman, 1991). When the research subjects belong to a small group of people who go through amorphous social experiences like mountaineering, the use of several methods allows the researcher to capture an overall sense of their feelings (Singleton & Straits, 2010). The types of data collected with these methods are part of the rich field of the human experience (Suvantola, 2002). Ethnographic and phenomenological approaches are ideally suited to this type of inquiry (Geertz, 1973; Neuman, 1991).

1.9 Summary

The following six chapters present my Master's thesis research on the mountaineering experience and its relationship to parks and protected area management. Chapter Two provides an extensive literature review followed by the evaluative framework in Chapter Three. Chapter Four describes the methods used to conduct the fieldwork. Chapter Five and Six present the results and my discussion of their implications for each study site, respectively. My recommendations for the provision of the optimal mountaineering experience in the Mountain Parks are also delineated in Chapter Six. The thesis concludes with Chapter Seven, where I summarize the initial objectives of the research, how they were accomplished, and the study's implications for future research.

Chapter 2 Literature Review

2.1 Social Science and Outdoor Recreation Management

Established in 1885, Banff National Park (BNP) was the first national park in Canada, and the third national wilderness space in the world to be recognized as worthy of protection, appreciation and enjoyment (Luxton, 1974; Shoalts, 2011). Since its establishment, and the subsequent foundation of other national parks and protected areas across North America and the world, many forms of management have been employed to govern visitor recreation activities and ensure satisfaction and quality of experience in each park. Prior to the 1950s, recreation management research was dominated by practitioners trained in ecological and biological sciences (Manning, 1986; Payne & Graham, 1993). Most findings about visitor activities were descriptive and did not analyze the interrelationships between recreationists and their park environments. Little consideration was given to visitor behaviour, values, attitudes and beliefs as managers saw them to be “outside of their purview...intruders who brought with them problems for which they were not trained to solve” (Field et al., 2011, p. 2). The end of World War II saw recreational visitation to parks steadily increase, until, in the 1960s and 1970s, social problems such as crowding became progressively more obvious and warranted further examination (Manning, 1986). Existing visitor statistics were not enough to explain the social problems being experienced by managers and recreationists (Field et al., 2011).

John Muir, who founded the Sierra Club in 1892, was an early, leading proponent of the inclusion of a deeper human experience in wilderness management practices (Muir, 1911). “To Muir, the essence of wilderness was the freedom, solitude, and beauty of the mountains. These qualities, he felt, could satisfy all human needs.” (Hendee, Stankey, & Lucas, 1990, p. 7). Driver and Toucher (1970) examined recreation from the perspective that Muir had initiated almost a century before. Their reassessment of natural resource and recreation research went beyond visitation statistics and recognized that human behaviour, motivations and desires were essential elements in this multifaceted field of study (Driver & Tocher, 1970) and that, ultimately, the provision of satisfying recreational experiences was reliant on a deeper knowledge of the visitor experience itself (Hendee et al., 1990). No longer was it assumed that humans were simply controlling their environment (Manfredo, Vaske, Bruyere, Field, & Brown, 2004); instead they would be considered an integral part of it. Outdoor recreation research was henceforth

considered an interdisciplinary applied field of study, fashioned from both ecological and social science perspectives (Manning, 2011).

Burdge and Field (1988), as co-editors of the introductory issue of *Society & Natural Resources*, indicated that other researchers in this field should strive to study the

...interaction of the social with the biological and the social with the physical environment since we believe that the beginning steps in understanding a resource problem require an interdisciplinary perspective embracing the social and natural sciences (p. 1).

Gradually, the *Journal of Park and Recreation Administration*, *Journal of Leisure Research*, *Leisure Sciences* and *Therapeutic Recreation Journal*, amongst others, evolved into the hubs of knowledge for this burgeoning, interdisciplinary field. However, the pinnacle of integration of social and ecological sciences has not yet been reached (Manfredo et al., 2004). Just as the recreational outdoor experience is dynamic, ever changing and is influenced by a number of social, environmental and managerial factors (Hendee et al., 1990; Manfredo et al., 2004; Manning, 1986, 2011; Manning & Anderson, 2012; Martin et al., 2009), so too is the recreational management planning process. It is a fundamentally adaptive process, rather than a final product (Parks Canada, 2008c; Stankey & McCool, 2011) and with a dual mandate of visitor satisfaction and preservation of ecological integrity, outdoor recreation managers need to adjust their methods consistently to keep pace with changing social and environmental factors.

2.2 Outdoor Recreation Management Planning

2.2.1 Dual Mandate

The type of outdoor recreation management that will be the focus of this study is that which takes place in Canada's NPs. However, the majority of the published literature is from research in other national contexts, particularly the United States. One of the central challenges in park management research relates to the 'dual mandate'. Agency managers are charged with the potentially conflicting mandate of protecting the natural environment and facilitating high quality recreational experiences. Manning (2012) describes the potential for incongruity:

This dual mission creates a fundamental tension: how much and what kinds of use can be accommodated before parks are "impaired"?...Park and outdoor recreation managers must be sensitive to these issues and find ways to manage ... the tension inherent in the dual mission – preservation and use (2012, p. 4).

The concept of managing wilderness has only developed in the past 40 to 50 years (Hendee et al., 1990) with most parks being developed on public land by the government (Nelson, 1993). Their responsibility, as stated in Nelson's (1987) review of the roles of parks, included the protection and appropriate use of land, forest, soils, river, water, cultural resources, the monitoring of environmental change, and finally, the provision of appropriate visitor recreation opportunities (Nelson, 1987). The need for the preservation of ecological integrity stems from the negative environmental impacts that are generally associated with recreation, also known as recreation resource impacts (Hammitt & Cole, 1987). Although impacts associated with each types of recreation differ to some extent, they can all affect soil, vegetation, wildlife and water (Hammitt & Cole, 1987; Hendee et al., 1990). Compaction of soil on hiking trails, water quality degradation due to increased sediments from trail erosion, reduced plant cover as a result of trampling, and wildlife habitat disruption because of increased human presence are examples of common resource impacts experienced (Hammitt & Cole, 1987; Hendee et al., 1990; Manning, 1986). As mentioned previously, the tendency was for managers to focus on ecological impacts first and foremost (Hammitt & Cole, 1987), with the biocentric philosophy – placing emphasis on the preservation of the natural world and biological processes (Hendee et al., 1990). Dearden and Rollins (1993) suggest that this is still the case: "Parks are now viewed as places for conservation, rather than recreation" (Dearden & Rollins, 1993, p. 17). However, the majority of literature suggests that notion is changing and advocates the anthropocentric philosophy: addressing and facilitating the interaction between the visitors and their environment in conjunction with more conventional recreation management practices (Manning & Anderson, 2012).

The Parks Canada (PC) mandate exhibits recognition of the dichotomy between both philosophies:

On behalf of the people of Canada, we protect and present nationally significant examples of Canada's natural and cultural heritage, and foster public understanding, appreciation and enjoyment in ways that ensure the ecological and commemorative integrity of these places for present and future generations (Parks Canada, 2008c, p. 1).

The PC Guide to Management Planning (2008) also states that the mandate comprises three elements: "protecting heritage resources, facilitating opportunities for visitor experience; and providing public education" (p. 1). It recognizes that there is a requirement for an integrated approach to management that promotes the "interdependency and synergies among all three

mandate elements” (p.1). The resource manager must establish the delicate balance between “satisfying public desires for experiences without creating substantial, irreversible losses of wildland resources” (Hammit & Cole, 1987, p. 18). The overarching thought, in more recent literature, is that land managers now face the challenge of addressing their mandates to provide users with appropriate recreational experiences, while mitigating impacts caused by visitors, recreational users and natural processes (Cairngorms National Park Authority, 2007a; Ewert & Hollenhorst, 1997; Manfredo et al., 2004; Manning, 2011; OFEV, 2011). The principal instrument in facing this challenge will be the development of management objectives related to visitor use and acceptable levels of impact.

2.2.2 Three-fold Framework

Literature in this field, both older and more recent, is in agreement that outdoor recreational experiences are governed by many different elements, which can be divided into three categories, environmental (or biological), social and managerial factors (Hammit & Cole, 1987; Lawson & Manning, 2002; Manning & Anderson, 2012; Martin et al., 2009). Social factors refer to contact and conflict with other visitors and the softer elements of the experience such as perceptions, motivations and expectations. Environmental, also known as biological or physical factors, include the land and resources on which recreation takes place and the visitors’ place in the landscape. Finally, the managerial factor is dictated by the rules, regulations, education and law enforcement in place. These three factors do not work independently, but rather, the experience is a function of the interaction of all three. Manning and Anderson (2012) present an example of their interplay to affect experiences:

[The] quality of the recreation experience might be maintained or even enhanced in the face of increasing use by means of more even distribution of visitors, appropriate rules and regulations, provision of additional visitor facilities, and educational programs designed to encourage desirable behaviour (2012, p. 7).

Informed management of parks must allow for all three factors. The focus of this project is mainly on the interaction between the social and managerial factors and the social and environmental factors. The managerial effects on the physical environment will be examined in less depth here.

2.2.3 Visitor Satisfaction, Expectations, Preferences and Trade-offs

Quality visitor experience, is defined by PC as:

...the sum total of a visitor's personal interaction with protected...places and people, an interaction that awakens the senses, affects the emotions, stimulates the mind, and leaves the visitor with a sense of attachment to these special places (Parks Canada, 2008c).

The provision of a variety of first-rate recreation opportunities is predicated on the belief that satisfying experiences will connect visitors with the landscape (Parks Canada, 2008c) and possibly encourage them to return, in order to maintain relevance of the parks themselves. Satisfaction has long been considered a measure of quality in recreational pursuits (Floyd, 1997), and a means for managers to judge the extent of their abilities to provide these experiences. Manning (1986) offers the following definition of quality in outdoor recreation: "the degree to which opportunities satisfy the motivations for which they are designed" (p. 120). Satisfaction is a multi-dimensional emotional state that is a function of expectations and preferences (Martilla & James, 1977), both of which are influenced by subjective psychological factors that are not under the control of managers (Cole, 2011-2012; Schreyer & Roggenbuck, 1978; Shelby, Heberlein, Vaske, & Alfano, 1983), such as social interactions and perceived crowding. Preferences are general desires or attitudes about optimal conditions while expectations are anticipatory beliefs that a specific outcome will occur. In recreational expectation-satisfaction studies, research has shown that although visitors would be most satisfied if both their preferences and expectations were met, their expectations are often tempered by practical assessments of reality. Thus, they can be satisfied with experiences when their expectations are met, even if their ideal preferences are not entirely met. However, if a recreational experience fails to meet their pragmatic expectations, then it may not meet their lowest evaluative standard and the experience will not have been satisfying (MacKay & Crompton, 1990; Malcolm, 2009; Shelby et al., 1983). Festinger (1957) referred to this as his theory of cognitive dissonance:

Cognitive dissonance can be seen as an antecedent condition which leads to activity oriented toward dissonance reduction just as hunger leads to activity oriented to hunger reduction (Festinger, 1957, p. 3).

If a desired outcome is not consistent with expected needs or goals, recreational participants might experience a revaluation of motives wherein reasons for participation that were not successfully achieved become less important than other realized motives (O'Keefe, 2002). Ewert (1993) explains this concept with a mountaineering example:

...if during a climb, the summit is not reached, then being part of the team or enjoying the scenery would become *more* important as motives for participation than motives such

as accomplishment, personal testing or excitement (Ewert, 1993, p. 337).

He suggests that this dissonance can determine the level of satisfaction that is experienced by the participant. Manning (2011) refers to the significance of the expectancy theory in the search for quality experiences:

Participants engage in recreation activities with the expectation that this will fulfill selected needs, motivations...The congruence between expectations and outcomes is seen to ultimately define satisfaction (p. 13).

However, Ewert (1994) suggests that reasons for participation go beyond anticipated rewards, especially in the case of mountaineering. He refers to Heimer (1988) and states:

Reasons for participation in activities such as mountaineering are often not fully understood by resource managers. This lack of understanding is, in part, propagated by the belief that recreation behaviour is often based on anticipated rewards, and, in a recreational context, what reward could be worth risking one's health or life? (Ewert, 1994, p. 4)

Several studies and publications have discussed the fact that there appears to exist a temporal influence on satisfaction (Ewert, 1993; Manfredo, Driver, & Tarrant, 1996; Manning, 2011). Depending on when study participants are asked to rate their satisfaction derived from specific recreational trips, differences in motivations have been noted. Manning (2011), citing the research of Manfredo et al. (1996), states that:

...motivations [should] be measured immediately prior to the recreation activity to determine experience preferences, immediately after the recreation to determine attainment of experiences, and some months after the recreation to determine enduring experiences (p. 188).

The benefit to understanding the complexities of visitors' expectations and preferences is the resulting ability to evaluate a park's capacity to provide satisfying experiences. Recreation literature often refers to the economic principles of Martilla & James's Importance-Performance Analysis (IPA) (1977) when attempting to gauge what is important to visitors and their "post-experience assessment" (Malcolm, 2009, p. 24). Driven by visitor surveys IPA is conducted by plotting important elements of a visitor's experience and overall performance of a recreational site on an x-y axis. Visitors' responses are interpreted onto one of 4 quadrants: unsatisfactory experience (an aspect of importance has not been fulfilled), satisfactory experience (an aspect of importance has been fulfilled), low priority (an insignificant aspect has received a low satisfaction rating) and possibly overkill (an insignificant aspect has received a high satisfaction

rating). This grid then indicates where managers should direct their efforts to improve satisfaction (Martilla & James, 1977).

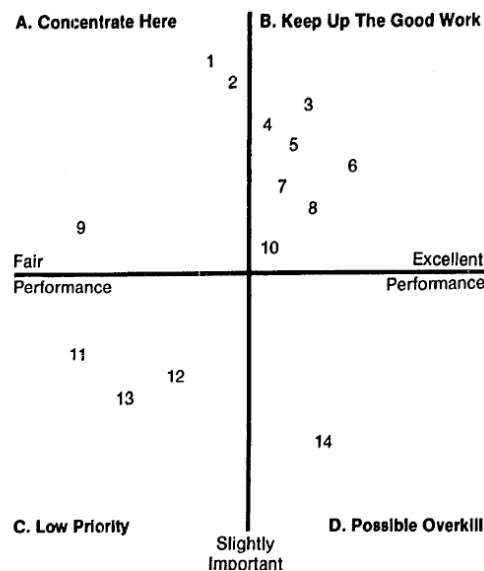


Figure 4. Example of Importance-Performance Analysis
Source: Martilla and James (1977, p. 78). Numbers represent elements of the experience.

Given that recreational experiences are governed by the three-fold framework, managers will be required to make concessions along one or more of these conditions in order to attempt to provide quality, satisfying visitor experiences. These trade-offs are inherent to both managers and recreationists themselves as it is unlikely that the ideal conditions will be met for everyone. For example:

The number of permits issued for recreational use of a wilderness area could be increased to allow more public access, but this might result in more resource impacts and encounters among groups within the wilderness area. Conversely, reducing the number of recreational use permits issued might reduce resource impacts and encounters among groups, but would allow fewer people to enjoy the wilderness area (Lawson & Manning, 2002, pp. 297-298)

Some recreation management studies indicate elements of the experience that are important to specific recreationists, but do not necessarily identify the relative importance of these attributes. This means that managers, required to make tradeoffs in order to balance a variety of environmental pressures and a multitude of visitor demands, are not always sure of which visitor motives to prioritize. ‘Stated choice analysis’ is a method for examining these tradeoffs (Manning, 2011). It is a decision-making model designed to assist managers in predicting how

visitors think the three-fold framework ought to be managed in a wilderness area or park, as opposed to their preference for management (Lawson & Manning, 2002).

If, as Lucas and Stankey (1974) suggested, we assume that the primary goal of both visitor participation and recreation management is to maximize satisfaction and we understand that there are a variety of elements of the experience that appear to be outside of managers' control, then it is logical to assume that understanding motivations and desires in recreation participation is an underlying objective for managers and researchers alike. The measurement of quality for visitors is the degree to which their recreational experiences meet their needs and expectations. For managers, this measurement represents the degree to which the opportunities they are offering meet the preferences and expectations of visitors. Quality can be considered a form of evaluative communication between managers and visitors, and its overall rating can be dependent on a variety of management actions that will be discussed further on in this chapter.

2.2.4 Motivations for Recreation Participation

In the 1950s, it was assumed that reasons for participating in outdoor recreation were few and simple: surplus energy, relaxation and catharsis (Manning, 2011). Variables influencing outdoor recreation were seen to be limited to demographics such as participant age, income, current technology and participation trends (Ewert & Hollenhorst, 1997). While those may indeed be elements that contribute to participation, numerous other reasons have since been identified. It is now acknowledged that the outdoor recreation experience is a dynamic activity that is comprised of many stages including anticipation, travel, the on-site experience, return travel and the memories (Clark, Burgess, & Hendee, 1971; Manning, 2011). During each of these stages, visitor behaviour is determined by experience level, social group structure, mode of travel and most importantly, in the context of this study, user motivations (Hammitt & Cole, 1987). An early method for examining these motivations was the behavioural approach (Haas, Allen, & Brown, 1980; Manning, 2011), which is based on the expectancy theory – the concept that most human behaviour is designed to meet some need or desire for satisfaction (Vroom, 1964). This approach developed four levels of demand for outdoor recreation (Table 1.1).

Table 1.1 Levels of the Behavioural Approach

Level	Example
1. Activities	Mountaineering
2. Settings • Environmental Setting	• Rugged terrain

• Social Setting • Managerial Setting	• Few people • Few rules and restrictions
3. Motivations	Challenge, risk taking, physical exercise, exploring, developing skills
4. Benefits • Personal • Social • Economic • Environmental	• Enhanced self-esteem • Family solidarity • Increased work productivity • Higher quality environment

Adapted from Haas et al. (1980) and Manning (2011).

Levels 2, 3 and 4 are the main focus of Phase I of this research, within the context of recreational mountaineering. Level 3 refers to motivations, which are desired psychological outcomes of participating in the recreation. Level 4 refers to “high-order benefits that can flow from satisfying experiences” (Manning, 2011, p. 168). Critics have said that the behavioural approach may be too linear to deal with the complexities of user emotions and that the decisions governing recreation participation may be affected by mood, sense of place and other intellectual and emotional connections, differing during each phase of travel (Borrie & Roggenbuck, 2001; den Breejen, 2007; Manning, 2011).

Numerous studies on recreation motivations have resulted in a thorough, standardized collection of categories that measure motivations that are part of Level 3 (Table 1.2).

Table 1.2 Recreation Experience Preference Scales and Domains

Domains	Scales/Scale Items
1. Achievement/ Stimulation	1. Reinforcing self-image 2. Social Recognition 3. Skill Development 4. Competence Testing 5. Excitement
2. Autonomy/Leadership	1. Independence 2. Autonomy 3. Control – Power
3. Risk Taking	1. Risk Taking
4. Equipment	1. Equipment
5. Family Togetherness	1. Family Togetherness
6. Similar People	1. Being with friends 2. Being with similar people
7. New People	1. Meeting new people 2. Observing other people
8. Learning	1. General learning 2. Exploration 3. Geography of the area 4. Learn about nature
9. Enjoy Nature	1. Scenery

	2. General nature experience
10. Introspection	1. Spiritual 2. Introspection
11. Creativity	1. Creativity
12. Nostalgia	1. Nostalgia
13. Physical Fitness	1. Exercise – physical fitness
14. Physical Rest	1. Physical rest
15. Escape Personal/Social Pressures	1. Tension release 2. Slow down mentally 3. Escape role overloads 4. Escape daily routine
16. Escape Physical Pressure	1. Tranquility 2. Privacy 3. Escape crowds 4. Escape physical stressors
17. Social Security	1. Social security
18. Escape Family	1. Escape family
19. Teaching/Leading Others	1. Teaching – sharing skills 2. Leading others
20. Risk Reduction	1. Risk moderation 2. Risk avoidance

Adapted from Manning (2011, pp. 179-181)

Driver (2008) also provides a detailed list of benefits of outdoor recreation associated to Level 4 of the behavioural approach, including (but not limited to) personal development and growth (e.g., self-esteem, sense of control over one's life), personal appreciation (e.g., challenge, sense of freedom, flow), psychophysiological improvements (e.g., improved perceived quality of life, reduced spinal problems, reduced anxiety), community identity, social support, increased trust in others, increased productivity, stewardship, environmental ethics, and environmental protection (Driver, 2008).

Visitor attitudes, preferences and perceptions appear to be extensive and are specific to the type of recreation and recreation site. Managers have generally used two approaches to researching these social factors: 1) direct questioning via surveys and 2) observation of user behaviour. It has been noted that due to the complex nature of human motivations and attitudes, managers' perceptions of visitors have been inaccurate (Manning, 1986). For example, several studies have examined climbers' attitudes towards the impacts of climbing and resulting management actions. Their findings revealed that most climbers were not offended by the presence of bolts, the use of chalk or the creation of holds, issues that were of concern for managers (Waldrup & McEwen, 1994). Instead, climbers found the following offensive: litter, erosion, impacts to trees and rock faces, noise, crowding and impacts resulting from poor

climbing practices (Monz et al., 2005). Climbers felt that managers did not fully understand the climbing experience and that, as a result, their recreation sites were not managed accordingly (Monz et al., 2005). This study's findings reinforce the ever-present theme that, in an effort to fulfill part of their mandates, managers must get to know their recreationists better.

2.2.5 The Visitor Experience Cycle

The PC Visitor Experience Council, a relatively new department within the Agency, launched a planning guide for managers in 2005, “as a step towards operationalizing the visitor experience concept within Parks Canada” (Parks Canada, 2008d, p. 1). In conjunction with the Canadian Tourism Commission (CTC), PC produced what they have coined the ‘Visitor Experience Cycle’:



Figure 5. Visitor Experience Cycle
Adapted from Parks Canada (2011)

The cycle recognizes the full spectrum of time and activity that constitute the recreational experience. Possible negative impacts to the visitors' experience cycle include crowding, user conflict, depreciative behaviour, environmental impacts and excessive regulations (Manning 2012).

Based on the CTC's 'Explorer Quotient (EQ)' model, PC also produced a method of categorizing visitors. There are three categories of visitor explorers and three types of visitors within each: Learning Explorers (Authentic Experiencers, Cultural Explorers, Cultural History Buffs); Social Explorers (No-Hassle Travellers, Personal History Explorers, Free Spirits); and

Reluctant Explorers (Gentle Explorers, Rejuvenators, Virtual Travellers) (Fig. 6). Each visitor type has a set of social values, travel lifestyles and desired experiences attributed to it. The EQ system was adapted to help PC managers understand their visitors and market directly to them in a similar manner as that employed by the CTC.

Not only will the EQ segmentation tool help us be more targeted in our marketing, it will also inform our decisions from a product development perspective. We will be speaking to the right markets and we will create experiences to deliver on their expectations (Canadian Tourism Commission, 2009, p.2).

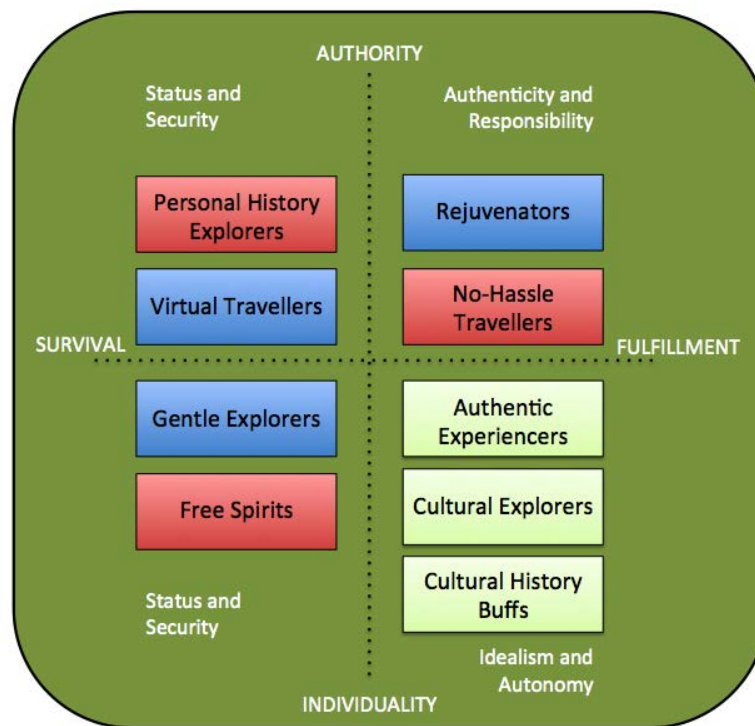


Figure 6. The EQ Types Charted by Visitor Values
Adapted from Parks Canada (2009).

2.2.6 Recreation Management Frameworks

The origin of outdoor recreation management frameworks began in the 1970s and 1980s (Manning, 2004; Nilsen & Tayler, 1997). In order to guide effective management for a variety of recreation opportunities, a number of frameworks have developed and adapted since then. Each of them strives to take into consideration the three-fold framework, discussed earlier. Manning (2004) suggests that frameworks are most successful when they are set up as “management-by-objectives”. Most frameworks are governed by the following: Step 1) formulate management goals, associated indicators and standards of quality; Step 2) monitor quality indicators and Step

3) apply management practices to ensure standards of quality are maintained (Manning, 2004; Manning & Anderson, 2012). The following points should be taken into consideration when establishing a management framework: 1) agree that two or more goals are in conflict (e.g. visitor experience opportunities and ecological integrity); 2) establish that all goals must be compromised to some extent (e.g. recognize that all recreation will cause some form of ecological impact), and 3) decide which conflicting goals will compromise other goals (e.g., create a hierarchy of objectives). Then compromise, compromise, compromise until goals are balanced out (Cole & McCool, 1997; Manning, 2004). Most of the frameworks presented below are similar – they all address inherent tradeoffs and emphasize the consideration of desired future conditions.

There are other issues that deserve attention: “standards of quality” doesn’t necessarily refer to desired future conditions; instead they are limits of acceptable change. Limits of acceptable change are defined by the acknowledgement that there will be some change in the environment due to human presence in a park (Hammitt & Cole, 1987), but once that change approaches a predetermined level of acceptability, it should be addressed by management (Hendee et al., 1990). Management actions should be proactive, not reactionary. In addition, wilderness experience is multidimensional so indicators should be broad in their context. Finally, monitoring the progress of conflicting goals can be a pricey management venture but it is essential to determine if standards are being achieved; otherwise, it would all be for naught.

2.2.6.1 Carrying Capacity

Like many concepts in outdoor recreation management planning, carrying capacity was borrowed from range management frameworks and it stands as one of the earliest of its kind. It is defined as how much recreation can be ecologically sustained by a specific site (Dasmann, 1964) and acts as a management framework by limiting activity based on what can be sustained. The carrying capacity of a site was thought to depend on the type of recreation, the intensity of use, the current state of the environment and management goals. However, when the complexities of the visitor experience are considered, it has been suggested that this framework is too linear and does not allow room for adaptation. Management goals must consider limits of acceptable change for recreation sites and these are not entirely addressed by the application of the carrying capacity framework. Given that amount of use is not necessarily equivalent to amount of impact, Manning (2004) states that carrying capacity is not as effective as a

management-by-objectives framework as it does not consider the social carrying capacity of sites or their “desired future conditions” (p. 91).

2.2.6.2 Specialization in Recreation

Specialization is defined as a “continuum of behaviour from the general to the particular, reflected by equipment and skills used in the sport and activity setting preferences” (Weekley III, 2002, p. 5). It’s first use, as a conceptual framework on how to view recreationists was developed by Bryan (1977). Also referred to as skill level, specialization has since been used to help predict and explain attitudes and behaviours towards recreation management and the impacts associated with specific recreation types (Bryan, 1977; Dyck et al., 2003; Merrill & Graefe, 1997). There are three components of specialization, each independent of each other but interacting and reinforcing each other: 1) psychological component (i.e., involvement and commitment), 2) cognitive component (i.e., knowledge and skills), and 3) behavioural component (i.e., level of experience, equipment use) (Weekley III, 2002). It has been suggested that as skill levels progress, recreationists develop more particular requirements for their satisfaction (Weekley III, 2002). Novice users are considered to have limited participation and interest in the activity while skilled users are generally more committed and knowledgeable (Dyck et al., 2003). It was designed to move away from the concept of an “average user”. In their study of specialization in mountaineers, Dyck et al. (2003) discovered that the more specialized mountaineers were in their field, the more they were aware of low-impact mountaineering practices and exhibited favourable attitudes towards management actions (Dyck et al., 2003). This has important implications for management in that information and education programs can be tailored to mountaineers as these sorts of programs are always more effective when there is a strong knowledge of the intended audience. Specialization is also related to the users’ choice of recreation site (Weekley III, 2002), as Merrill et al. (1997) demonstrated, and this too, has implications for management.

Rock climbers are more concerned with the attributes of the rock climbing route than the general recreation setting. Therefore, managers could channel rock climbers into areas that are not in pristine condition, closer to the trailhead...(Merrill & Graefe, 1997, p. 42).

Kuentzel and McDonald (1992) indicate that there are three dimensions affecting recreation specialization: 1) past experience, 2) commitment and 3) lifestyle. There are various interactions between these dimensions, not yet entirely mapped out yet by research. They believe that these

dimensions affect visitors' motives for participation, perceptions and preferences for management. Ultimately, specialization is an effective tool for managers to assist in providing a number of different opportunities for recreational users.

2.2.6.3 Recreational Opportunity Spectrum

The Recreational Opportunity Spectrum (ROS) is a management framework designed to ensure that recreational opportunities are offered in diverse settings within a park (Hendee et al., 1990; Manning & Anderson, 2012; Weekley III, 2002). Developed by researchers for the U.S. Forest Service Bureau of Land Management, it is intended to be applicable to any type of recreational setting (Martin et al., 2009; Nilsen & Tayler, 1997). ROS applies indicators and standards of quality to the three-fold framework: it examines each of the environmental, social and managerial settings in parks in order to illustrate and promote a range of recreation opportunities (Manning & Anderson, 2012; Nilsen & Tayler, 1997). In order to examine the connections between the environmental, social and managerial conditions, ROS divides recreation spaces into six opportunity classes, categorized by their setting characteristics: primitive, semi-primitive non-motorized, semi-primitive motorized, non-primitive, roaded natural, rural, and urban. Each class is given distinct management objectives. For example, if an area is deemed primitive, solitude will be encouraged, environmental impacts will be less tolerated and infrastructure will be limited. A series of indicators have been developed that represent how managers can alter each setting, in the hopes of providing a range of experiences for visitors. These include: access, remoteness, visual characteristics, site management, visitor management, social encounters and visitor impacts (Hendee et al., 1990; Nilsen & Tayler, 1997).

The ROS assumes a linear relationship between the setting and types of management actions that should be allowed there, specifically as settings become more urban, recreationists deem more direct management actions acceptable (Hendee et al., 1990). However, Martin et al. (2009) refuted this long-standing thought. They discovered that some primitive setting respondents were also supportive of direct management actions. One of ROS' drawbacks is that it does not work in conjunction with PC's zoning system and has also been criticized for being too linear, based on the assumption explained above. In order to meet visitor needs, in accordance with a dual mandate, managers must strive to provide a myriad of opportunities and be aware that experiential desires are seldom linear.

2.2.6.4 Other Recreation Management Frameworks

Beginning in the 1980s, there was a surge of development of other recreation management frameworks that, unlike the carrying capacity framework, took into consideration the desired future conditions of parks. They were designed to address increasing demands on recreational sites and changes in human impacts on ecosystems and to suggest thorough, integrated and interdisciplinary methods to manage these issues (Nilsen & Tayler, 1997). They recognized the need for parks to provide for a variety of visitor opportunities and the importance of social science in this field of planning. A description of several of these frameworks follows.

Developed by PC in 1985, the Visitor Activity Management Process (VAMP) was a decision-making framework designed to assist PC managers in:

...identifying opportunities and assessing public needs related to public understanding, appreciation and enjoyment, visitor activities planning, definitions of levels of service and operation of facilities, and evaluation of effectiveness in providing service to the public consistent with the Parks Canada mandate (Parks Canada, 1994, p. 8).

The VAMP process was one of the first of its kind to consider the value of social science in planning and attempt to manage the “tension between the resource and the visitor” (Graham, Nilsen, & Payne, 1988, p. 45). It focuses on the creation of a variety of meaningful visitor opportunities, appropriate for specific settings, as opposed to the reduction of impact levels, although these are also considered in the process (Nilsen & Tayler, 1997). It aims to go beyond the limitations of the ROS by considering the experiences sought by visitors, and endeavours to identify their motivations and then establish suitable markets for promotion.

Visitor Impact Management (VIM), developed for the U.S. NP Service in 1990, focuses on the possible causes of visitor impacts on recreational sites in order to select effective management actions (Manning, 2004). The impacts on biological and the social contexts are considered, but only in locations that are considered to be current problem areas – potential impacts are not addressed (Nilsen & Tayler, 1997). Despite this, VIM’s structure allows for a thorough assessment of potential management strategies and aids managers in the decision-making and implementation phases.

Finally, Visitor Experience Resource Protection (VERP), created specifically by the U.S. NP Service in 1993, has a more universal view and “requires that planning begin with an analysis of the purpose of the park” (Manning, 2004, p. 87). It examines the capacities of the

resources and quality visitor experiences are sought. Generally, different types of management zones are the recommended outcomes of this process (Nilsen & Tayler, 1997).

2.2.7 Management Strategies and Actions

Outdoor recreation management strategies and actions are two distinct classifications – similar to strategies versus tactics in the military. Strategies refer to “conceptual approaches to management that relate to the achievement of desirable objectives” (Manning & Anderson, 2012, p. 20), whereas actions are practices that are implemented on the ground to affect visitor behaviour. Strategies for managers include increasing the number of recreational opportunities, limiting use and reducing the impacts of recreation. Examples of management actions include use rationing, law enforcement, land zoning, facility development and information/education campaigns (Hendee et al., 1990; Manning & Anderson, 2012).

There are two common approaches to management actions – direct and indirect. Direct, or heavy-handed, actions act directly to affect the visitor’s behaviour, leaving them little room for choice (Hammit & Cole, 1987). Examples of these actions include increased law enforcement presence, limitations on party sizes and zoning for certain activities in the backcountry (Hendee et al., 1990; Manning & Anderson, 2012). Indirect, or softer approaches to management put emphasis on influencing or modifying visitor behaviour and give the visitor more choice. Examples include physical alteration to trails, the dispersal of information and education, and identification and promotion of a variety of recreation opportunities in the area. It used to be that these softer approaches were generally favoured in wilderness and backcountry settings (Hendee et al., 1990; Manning & Anderson, 2012). Although one might imagine that visitors want the least strict and obtrusive actions to govern their behaviour in a park, research indicates that direct actions may enhance the quality of recreation (Manning & Anderson, 2012). Both direct and indirect actions allow managers to accomplish ecological and visitor satisfaction objectives and they can be used to compliment each other. The benefits and drawbacks of both have received considerable attention in outdoor recreation management literature. The next sections will discuss management actions that are relevant to this research.

2.2.7.1 Information and Education

Considered indirect management actions, numerous studies have shown that effective information and education campaigns can enlighten and influence park visitors whilst improving

their satisfaction and acceptance for management actions, and have a variety of other benefits (Bright, 1994; Manning, 2003; Manning & Anderson, 2012; Marion & Reid, 2007).

Better communication with the public can help managers identify the recreation preferences of diverse groups, obtain support for plans and programs, [and] enhance visitor enjoyment through interpretation...(Bright, 1994, p. 48)

The communication theory suggests that visitor behaviour is partially based on beliefs and attitudes and thus, information campaigns designed to alter relevant attitudes is dependent on a number of variables, including the message details and the media by which they are delivered (Manning, 2003). There are four main benefits to using information/education campaigns: influencing visitor use patterns, enhancing visitor knowledge, changing visitor attitudes towards management actions and addressing depreciative behaviour. There are three models on which this theory operates: applied behaviour analysis, central route to persuasion and peripheral route to persuasion (Marion & Reid, 2007). Applied behaviour analysis focuses directly on informing visitor behaviour rather than on antecedent variables like beliefs and attitudes (e.g., informing recreational users of their rewards or punishments to be administered according to their behaviour). The central route to persuasion ensures that beliefs are modified through substantive messages that lead to changes in behaviour. This method is less direct than applied behaviour analysis, but has potentially longer lasting effects as it targets beliefs and attitudes. Finally, the peripheral route spotlights the message source and medium. For example, messages posted on signs from park managers may influence behaviour more strongly as they are considered a more authoritative source. This method's effects are not long lasting, but they are effective when it is hard to keep visitors' attention. Bright (1994) and Marion and Reid (2007) indicate several ways to improve information campaigns for parks managers: ensure public comprehension with simply worded messages, use a variety of media in combination to increase message absorption, address issues at each stage of the visitor experience, provide only pertinent information to the intended audience and consider the prior knowledge or specialization of recreationists (Bright, 1994; Marion & Reid, 2007). For example, PC's permitting system for backcountry skiing in Rogers Pass, Glacier NP, educates users on the restrictions in the area, the permitting system itself and the reasons for the management actions in place. It uses a variety of media to educate visitors at the Rogers Pass Visitor Centre including a mandatory audio-visual display prior to purchase of an annual skiing permit. Most importantly, the program has received accolades from

visitors for its thoroughness and thoughtfulness (Statham, 2011). Manning (2003) compliments Bright's findings about messages delivered by parks agencies but also adds,

...commercial guides and outfitters can be trained to deliver to clients information/education programs that are effective in enhancing visitor knowledge...Management agency linkages with selected private and commercial organizations may be an especially effective approach (pp. 23,25).

2.2.7.2 Use Rationing, Rules and Regulations and Zoning

In response to overcrowding and the resultant impacts on ecological resources and visitor experience, use rationing has long been a tool used by park managers (Hammitt & Cole, 1987; Hanley et al., 2002). It includes actions such as permitting, lotteries, reservation systems and parking fees.

Rationing is deemed increasingly important due to crowding and environmental externalities, yet cultural and practical considerations mean that a system of simple entry fees to mountain areas is unrealistic (Hanley et al., 2002, p. 167).

Access management is a significant concern of park managers, especially those managing ecologically sensitive mountain areas. Access regulations can also be a sore point for visitors – managers face a double-edged sword: if they do nothing, trails and approach routes will become congested, if they ration access, people complain that they are being blocked from what they paid to enjoy. Creative solutions have been developed to address these demands, including the 'Long Walk-in', a method being developed in Scotland that involves making access to the mountains more laborious by closing off parking areas close to popular sites and increasing the length of the approach (Hanley et al., 2002). Access is still open, just more arduous. "By increasing the time price of access, demand will be reduced and so pressure from overuse will also be limited" (Hanley et al., 2002, p. 2).

Also quite common, yet equally controversial, is the use of regulations. Party-size limitations, pre-determined travel itineraries and limitations on lengths of stay are regularly employed methods of controlling visitor behaviour (Manning, 1986; Manning & Anderson, 2012). Like most management actions, the effectiveness of these rules and regulations is dependent on the way they are communicated to visitors. The following details should be included: why rules are necessary, what happens if visitors fail to comply and other available options (Hammitt & Cole, 1987; Hendee et al., 1990).

Finally, zoning is a regularly employed management action. At the heart of the ROS framework, and generally received well by visitors, zoning assigns certain recreational activities to specific areas of a park (Manning & Anderson, 2012). PC uses a management plan based on five zones to regulate activities and protection in its NPs (Parks Canada, 1994). For example, in Zone 1 Areas of Special Preservation, the provision of recreational opportunities is not a priority and some activities are sometimes completely prohibited. However, the zoning method has its drawbacks as well. In a park like Banff NP, where approximately 98% of the park is considered Zone II Wilderness, this management action is not necessarily effective at restricting certain activities based on concern for ecological integrity (Bunyan, 2011).

The common thread that runs between the discussed management actions is the requirement for managers to understand the complexities of the visitor's behaviours and the cumulative weight of the implemented actions. Most parks use a combination of regulations to achieve certain objectives and as long as their impact on the visitor experience is considered and managed for accordingly, managers have a good chance at meeting the challenges of their dual mandate.

2.3 Lived Experience

Developed in the 1900s by Edmund Husserl, the philosophy of phenomenology was designed to uncover the complex essences and truths behind subjective lived experiences in the context of social research (Gregory, 1978). It arose in response to the post-structuralist attempts to understand why something is experienced in a certain way, as these methods of inquiry seemed, to Husserl, to lack the understanding of what that experience means in the lives of the individuals being studied. Phenomenology provides more insight into our experiences by examining not only why we experience the way we do, but also the intellectual and emotional elements of lived experience, directly as it is experienced and not through the lens of another discipline (Csikszentmihalyi, 1990; Schutz, 1970). As a method of scientific inquiry, phenomenology scrutinizes personal experiences so that their subjective components can be recognized and disclosed (Suvantola, 2002). Its use as a valid scientific method, however, has been questioned because of the difficulty in verifying findings, replicating experiments and the lack of standard procedures. Nevertheless, phenomenology is now an accepted method of inquiry, as social scientists consent that it provides a richer insight into the nature of experiences

and it “can break through the narrative quality of communicated experience where feelings and sensations...can receive an illumination of comprehension” (Suvantola, 2002, p. 14).

2.3.1 Phenomenology and Tourism

The phenomenological lens can be applied to many disciplines and has been extended to the academic study of the tourists’ experience. Suvantola (2002) explores the use of this approach to tourism analysis, echoing Husserl’s thoughts in the need for a more shrewd examination of the human experience:

In the academic study of tourism, the experience of tourists themselves has often had a small role. Even when it has been the object of study, the focus has customarily been on marketing. However, the importance of travel experience can go far beyond mere consumption (p. 1).

The main reason for the application of phenomenology to tourism research is to discover the motivations for travel. Suvantola (2002) suggests that motivation to travel is based on the disparity between the mundane, commonplace routine of the everyday and the perceived possibility of exotic experiences elsewhere. He defines this motivation as a complex mix of two factors: *escape* and *search*, significant elements in our lives that have become highly regulated by work, finances and familial constructs. *Escape* refers to one’s need to disengage from familiar places and routines. When the world becomes seemingly meaningless in its familiarity, people can feel a sense of anomie and as such, are isolated, prompting an *escape* (Mitchell, 1988; Suvantola, 2002). *Search* signifies a quest for novelty and freedom from limiting commitments of everyday life. When people feel powerless, stifled and restrained by these social forces, they feel alienated and this stimulates the desire to *search* (Mitchell, 1988). “The perceived freedom to decide what we do is seen as providing the detachment we need to be able to have a new perspective on ...life” (Suvantola, 2002, p. 93). When one travels, one may gain a new perspective on life at home, hopefully achieving an improved quality of life and renewing an appreciation for home, which in time, will wane and a desire for new perspectives will again take effect. As soon as we fulfill our needs, new desires arise (Csikszentmihalyi, 1990). This cycle is represented below.

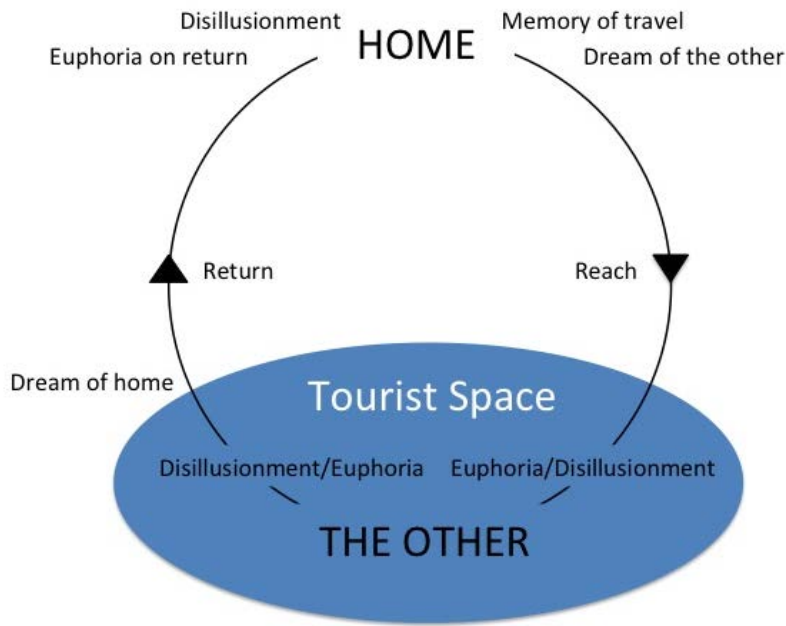


Figure 7. Tourist's Cycle
Adapted from Suvantola (2002).

The similarities of this travel experience cycle to the Visitor Experience Cycle (Fig. 5), are striking. This demonstrates that the complexities of the 'Visitor Experience Cycle' go beyond simple travel and extend into the realm of sociology, and are thus worthy of phenomenological inquiry.

The balance of alienation and anomie is the desirable condition sought by most in the pursuit of fulfillment. "Achievement of this balance renders activity intrinsically rewarding, enjoyable, "fun". It becomes leisure in the classic sense" (Mitchell, 1988, p. 44). Travel, tourism and recreation can provide this balance as they offer opportunities for expression, freedom and problem solving in a world of rigid certainty. A mountaineer describes this phenomenon:

Most people are secure, financially and socially...We have all the conveniences and comforts, but it's like living in an elaborately decorated cell...There is nothing mystical about the way we are controlled and over-governed by rules and systems...Sure, [climbing] is an escape, but it's an escape from the control of others...If it is an escape, it's escape from others back to yourself. You get yourself back for a while (Mitchell, 1988, p. 49).

The key concept in this description is an escape from alienation and anomie and an ultimately satisfying experience – the social-psychological condition of *flow* (Csikszentmihalyi, 1990; Jackson & Csikszentmihalyi, 1999; Lefevre, 1988; Mitchell, 1988).

2.3.2 Optimal Experience and Flow

Seeking pleasure is an innate motivational tactic for the preservation of our species. Once we have experienced a pleasurable, satisfying moment, we aim to control our lives in order to feel that sensation again (Csikszentmihalyi, 1990).

One might say that the whole effort of humankind through millennia of history has been to capture these fleeting moments of fulfillment and make them more a part of everyday existence (Jackson & Csikszentmihalyi, 1999, p. 3).

Upon first consideration, it may seem that a satisfying experience would result from favourable external conditions. However, Mihaly Csikszentmihalyi, the originator of the *flow* concept, argues that such feelings of exhilaration and a deep sense of enjoyment can also exist in adverse and taxing situations. As long as one's "body or mind is stretched to its limits in a voluntary effort to accomplish something difficult and worthwhile" (Csikszentmihalyi, 1990, p. 3), then one may sense the optimal experience. The notion of *flow*, an order in consciousness, comes into play when one is absorbed in one's actions in this search for satisfaction, to the exclusion of all other thoughts, emotions and distractions. The quality of our experiences depend on how we invest our energy and if we are able to focus our bodies and minds to work together effortlessly, discounting external conditions, then, we may experience *flow* – a harmonious, autotelic experience that is intrinsically rewarding (Csikszentmihalyi & Csikszentmihalyi, 1988).

Although it has been known to be experienced in many different contexts, *flow* is often associated with sports and recreation. The following are expressions that athletes have used to describe being in a state of *flow*: in the groove, on a high, in the zone, focused, everything clicks, switched on, weightlessness, floating, total involvement and tough and not puff (Jackson & Csikszentmihalyi, 1999). As discussed, we look to leisure activities to fulfill voids in our lives and recreation offers a context in which we are faced with challenges and must overcome them with skills. The challenge-skills balance is the first tenet of *flow*. In the context of recreational mountaineering, for example, when skill levels match opportunities for action, *flow* can be experienced and gradually mountaineers will be pushed to develop their skills, take on harder challenges and have more complex and satisfying experiences, thus increasing the potential for *flow*. Csikszentmihalyi (1990) argues that challenge is not necessarily the physical tests one encounters but rather the "struggle for establishing control over [one's] attention" (p. 41).

The other prerequisites for *flow* include a merger of the mind with body, the setting of clear goals, focus, sense of control, loss of self-consciousness, freedom from the pressures of time and an intrinsically rewarding activity (Jackson & Csikszentmihalyi, 1999). In fact, much of the *flow* literature relies on mountaineering and rock climbing for examples of rewarding activity regardless of occasionally unpleasant external conditions, such as bad weather and the risk and potential for death (Lefevre, 1988).

Mountaineering offers the antithesis of alienation [and meaninglessness], it offers the potential for flow (Mitchell, 1988, p. 49).

There's no place that more draws the best from human beings...[than] a mountaineering situation. Nobody hassles you to put your mind and body under tremendous stress to get to the top. Your comrades are there, but you all feel the same way anyways, you're all in it together. Who can you trust more in the 20th century than these people? People after the same self-discipline as yourself, following the deeper commitment. A bond like that with other people is in itself an ecstasy (Csikszentmihalyi, 1990, pp. 41-42).

...a well-known West Coast rock climber explains concisely the tie between the avocation that gives him a profound sense of flow and the rest of his life: "It's exhilarating to come closer and closer to self-discipline. You make your body go and everything hurts; then you look back in awe at the self, at what you've done, it just blows your mind. It leads to ecstasy, to self-fulfillment. If you win these battles enough, that battle against yourself, at least for a moment, it becomes easier to win the battles in the world." (Csikszentmihalyi, 1990, p. 40).

Due to its complex nature as a recreation activity, mountaineering involves problem solving, risk, and is guided by a multitude of different motivations. It follows then, that it would provide opportunities for *flow*, as they both are an integration of many autonomous elements that combine to be greater than the sum of the elements.

2.4 Mountain Recreation

An increasing global awareness of mountain environments comes alongside increases in mountain recreation and ecotourism (Nepal & Chipeniuk, 2005). With these recent changes, unique mountain resource characteristics can have specific implications for the management of recreational users. The mountain is not simply qualified as elevation, volume, relief and steepness. Instead, Nepal and Chipeniuk (2005) suggest that the following characteristics of mountains make them worthy of consideration for land managers: diversity, marginality, difficult access, fragility, niche and aesthetics. Difficult access is of noted concern for this research as it implies that mountains might attract a low volume of tourists, which in turn can be used to

develop high quality experiences for recreational users. However, most mountain terrain that was once considered remote is now easily reached by more advanced infrastructure such as developed airplane routes and highways (Johnston & Edwards, 1994). The fragility characteristic is also relevant to this research.

Mountains are fragile mainly due to steep topography, altitude, geology and climatic extremes. Increased rates of erosion...avalanches and floods and loss of flora and fauna are examples of fragility. The implication is that particular activities can be undertaken only at a certain scale and at specified locations (Nepal & Chipeniuk, 2005, p. 319).

This fragility requires that any type of mountain recreation must emphasize environmental conservation and sustainable practices. Finally, most mountain recreation is enjoyed and practiced by a niche market.

The tourism industry has exploited this niche with the constant invention, promotion and effective marketing of new trends...equipment and types of activities in the mountains (Nepal & Chipeniuk, 2005, p. 320).

The International Mountaineering and Climbing Federation (UIAA) has recognized the importance of these mountain-specific characteristics and has formulated guidelines on access and conservation for mountain recreation (UIAA Access and Conservation Commission, 2005). The UIAA has attempted to ensure that mountain climbing, and its related activities including rock climbing, ice climbing and ski mountaineering, are "...conducted in a sustainable way with respect to the conservation of biological diversity, the needs of local people, and the desires of climbers" (Price & Pettigrew, 2000). UIAA's Access and Conservation Commission Guidelines for Sustainable Mountain Tourism (2005) outlines elements of the physical environment that need to be protected, such as biodiversity, while identifying the importance of mountain recreation:

Tourists and the people of tomorrow will sure need to escape from the congestion of towns and cities to enjoy nature; the mountains will surely be both their inspiration and spiritual fulfillment (p. 4).

There are a variety of different mountain recreationist typologies including (but not limited to) mountaineers, rock climbers, ice climbers, ski mountaineers, boulderers, hikers and backpackers. Within those, there are varying social groups and specializations. In the Mont Blanc and Aiguilles Rouges massifs in the French Alps alone, Lefèvre (2004) surveyed high-altitude mountain users and identified eight different groups of participants, categorized based on

their sport of choice, their social backgrounds and their skill levels. Table 2.1 lists the discovered groups.

Table 2.1 Types of High-altitude Mountain Users in the Mont Blanc and Aiguilles Rouges Massifs.

Type	Description
Upmarket Mountaineer	Male 33-42 yrs, liberal professional, very keen on sports, upmarket ecological and/or motorized leisure activities, family tradition of mountain activities, prestigious high altitude races, challenging expeditions, calls on guide in case of difficult ascent
Client of Mountain Guide	Male 42 yrs, company executive, not very keen on sports, luxury activities, downhill skiing, high-altitude activities only in summer with a guide, commercially organized expeditions
Traditional Mountaineer	Male over 42 yrs, teacher or scientific professional, very keen on sports, variety of high-altitude activities all year round, alpinism initiator, prefers mixed climbing and rope handling versus modern activities, does not associate with clubs
Free Climbing Enthusiast	Male 18-25 yrs, student, extremely keen on sports, tries wide range of outdoor pursuits, very little experience mountaineering, mostly summer activities, all types of free climbing, modern techniques, competitive rock climbing, associates with clubs
Adventure-lover	Male 26-32 yrs, senior manager, extremely keen on sports, competition and individual, variety of adventure activities including long-distance treks, new to mountaineering, competent climber
The Purist	Male 33-42 yrs, intermediate professional, keen on sports, good skill level in mountaineering on rock, snow, ice, mixed and aid climbing, initiator of mountain activities, with and without clubs
The Hiker	Female over 42 yrs, office or manual worker, not very keen on sports, different kinds of hiking including glacier hiking in summer, organized by clubs/associations
The Professional	Male 33-42 yrs, mountain professional, extremely keen on sports/high-level, high-altitude mountain activities, year-round, all climbing activities old and new, commitment and risk-taking

Adapted from Lefèvre (2004, p. 79)

Those who participate in mountain recreation develop long-term relationships with their landscapes, they are active participants in the mountain space, with a long history as a distinct, niche community and thus are excellent candidates to understand and appreciate the need for a sustainable approach to mountaineering (Johnston & Edwards, 1994). Just as the management of mountain recreation areas is complex, so too are the social factors that guide mountaineers. Their multifaceted experience will be examined in the next section.

2.5 The Mountaineering Experience

Researching the motivations of mountaineers is important “because of the voluntary pursuit of risk, the lack of evident external rewards, and [its] non-utilitarian nature” (Delle Fave

et al., 2003, p. 82). Although mountaineering is recognized as a popular form of adventure recreation, there is a limited amount of research on or understanding of its participants, the key influences on their participation or the experience they seek (Pomfret, 2006). In fact, Weber (2001) believes that existing literature on adventure tourism and recreation has “focused mainly on preconceived notions of scholars and practitioners” (Weber, 2001, p. 360). Instead, she argues that,

Individuals’ subjective experience of adventure and their perceptions of what constitutes it have to be also researched and considered in the study of adventure tourism. Qualitative research methods should be afforded greater prominence in its investigation (p. 360).

The majority of research thus far has focused on the influences on mountaineering participation, like the sensation-seeking personality trait (Sleasman, 2004), the seeking of varied, unique, complex and powerful sensations and the inclination to take physical and social risks for the sake of such experiences (Zuckerman, 1979). However, Sleasman (2004) suggests:

Personality characteristics of intrinsic achievement and motivation and competitiveness, low anxiety and neuroticism, and high openness and agreeableness may all help explain the attraction and continued participation in the high risk sport of mountaineering outside the sensation seeking hypothesis (p. iv).

Sensation seeking plays a role in the experience; however, researchers suggest that other influences must also be considered as the reasons for mountaineering do not fit into standard notions of human motivation (Ewert, 1994; Loewenstein, 1999).

Complex motivations structure their presence and activities – motivations that are distinctly articulated as spiritual, physiological, and sociocultural reasons for being there (Johnston & Edwards, 1994, p. 470)

These other influences, and how they combine to effect mountaineers’ perception of their experiences, will be discussed in the following sections.

2.5.1 Influence on the experience: Sensation Seeking

Zuckerman (1979) introduced the concept of sensation seeking as it relates to participants in high-risk recreation activities by examining the relationship between sports and personality characteristics. In the 1980s, research classified sports according to the amount of perceived risk and actual risk involved. In comparison with other adventure recreation, mountaineering was defined as high risk as it ranked highly on Zuckerman’s Sensation Seeking Scale (Sleasman, 2004). Sensation seekers have a tendency to underestimate risk, demonstrate impulsiveness,

have a high drive for achievement and exhibit anxiety (Zuckerman, 1979). But Robinson's (1985) results in his study of elite rock climbers did not fully support all of the characteristics associated with sensation seeking. Their need for achievement and affiliation were not much different than non-mountaineers and although test subjects experienced some anxiety before the beginning of a climb, they indicated that it dissipated shortly thereafter and they were able to deal with it (Robinson, 1985). Sleasman (2004) discovered that his mountaineer test subjects had lower sensation seeking scores than anticipated and suggested that sensation seeking may be a factor in initially encouraging non-mountaineers to begin to participate, but that it doesn't promote or sustain participation. He states that:

Findings do suggest that mountaineering as a high risk sport may indeed be unique, and therefore the motivation to participate...may be a product of a particular personality profile (Sleasman, 2004, p. 49).

2.5.2 Influence on the Experience: Personality Profile of Mountaineers

Breivik's (1996) personality profile of climbers went beyond sensation seeking and revealed that the following are common characteristics: extraversion, emotional stability, conformity to social norms, search for thrill, experience by socialized means and boredom susceptibility (Breivik, 1996). Pomfret (2006) adds to the list the characteristics of autonomy, self-determination and competence: mechanisms for managing the intense burdens of decision making in precarious settings. Ewert (1994) points out that participants must also be highly goal-driven in order to take part in this type of recreation. Feher et al. (1998), studying rock climbers specifically, having many of the same traits as mountaineers, discovered that they appear to parallel the psychological profile of both team and individual athletes of more traditional sports such as rugby, running, football, soccer, speed skating and tennis. However, they seem to be less motivated to achieve success and less reliant on others to control their destiny. Sleasman (2004) noted that his mountaineering study participants experienced higher achievement motivation than the general population. He also noted the following about mountaineers: stronger desire to lead and be dominant, high goal orientation, intrinsically competitive, high degree of conscientiousness, enjoy company of others, and higher levels of assertiveness (Sleasman, 2004). Feher (1998) concludes that climbers face "challenging new courses and environmental changes on a daily basis, prompting a more extreme psychological mindset" (p. 175).

2.5.3 Influence on the Experience: Past Experience

Past level of experience can influence motivational patterns through a cognitive restructuring, phenomenological reinterpretation of reality, or development of a more defined form of specialization on the part of the participant (Ewert, 1994, p.14).

Ewert's (1985) and (1994) studies exhibited motivational differences between experienced mountain climbers and the inexperienced and that their patterns of motivation are contingent on these levels of experience. He suggests that an experienced mountaineer has a more thorough understanding of the risks involved and thus, is capable of developing more grounded expectations and motivations for their participation (Ewert, 1994). He attributes experience, skill ratings and motivations to each level of mountaineer (Table 2.2).

Table 2.2 Mountaineers' Experience, Skill and Motivations, Classified by Skill Level

Mountaineer	Experience Rating	Skill Rating	Motivated by
Beginner	Little or no mountaineering experience	n/a	Technical aspects, image associated with climbing, recognition
Novice	1 major expedition and some glacier travel experience	Beginner snow and ice climber	Decision-making, exhilaration, expression, escape
Intermediate	2-5 extended expeditions, lots of glacier travel and winter climbing experience	Capable of leading 5.6 rock and grade III ice	Decision-making, exhilaration, expression, challenge
Advanced	Over 5 major expeditions involving technical challenges, high altitude, arctic-like conditions	Capable of leading 5.9 + rock and grade IV ice	Exhilaration, self-expression, challenge, decision-making, personal testing

Adapted from Ewert (1994) and (1985).

Table 2.2 shows that as mountaineers become more experienced, their motivating factors move from the more mechanical, like learning to climb, to the more intrinsic and autotelic, such as self-expression and a quality experience (Delle Fave et al., 2003). The greater level of experience, the greater the adherence to intrinsic motivations such as *challenge*, *personal testing* and *locus of control* (Ewert, 1985). Interestingly, risk taking and sensation seeking had low levels of importance for all experience levels tested. Therefore, risk taking may not be the goal of mountaineers at any experience level, but rather a means to fulfill other goals like the need for stimulation and self-expression (Delle Fave et al., 2003; Gould & Tuffey, 1996).

2.5.4 Motives for Mountaineering

... mountaineering can offer opportunities where the outcomes are fateful, challenging, and dependent upon the actions of the participant. The [mountaineer] may be seeking an optimally arousing experience in an environment that demands a full measure of personal

commitment, decision making, uncertainty of course, and intrinsically important outcomes (i.e., survival) (Ewert, 1994, p. 6).

Demanding active engagement in a variety of activities such as scrambling, climbing on rock and ice, glacier travel, the use of gear such as axes and crampons, rope work, navigation, route finding, team building, weather interpretation and acclimatization, the mountaineering experience involves an extensive, intensive host of emotional states and levels of cognitive arousal. Weather is a concern due to arctic-like temperatures at high altitudes, high winds and low visibility. Other threats include falling into unseen crevasses, extreme exposure, avalanche danger and life-threatening complications of high-altitude illnesses such as cerebral and pulmonary edema and hypothermia (Ewert, 1994; Mitchell, 1983; Cox & Fulsaas, 2003). Participation in such a challenging form of recreation, in search of positive, intrinsically enjoyable experiences, implies that complex and multi-faceted motives are involved. The factors of the mountaineering experience that have been discovered by prior research will be discussed here.

There exists a relationship between 1) the risk, danger and uncertainty that the adventure recreation context provides and 2) the user's interaction with the natural environment. Risk, and the potential for danger tends to heighten concentration and adds definitive meaning to individual decision-making (Ewert & Hollenhorst, 1997). Uncertainty in the mountaineering environment, due to changes in weather conditions, unseen hazards amongst many others, can be controlled and reduced by the level of skill and actions of the participant. Interaction with the natural environment is also critical for the mountaineering experience. Remote, natural settings require greater self-sufficiency from mountaineers, "leading to a heightened sense of consequence and awareness" (Ewert & Hollenhorst, 1997, p. 22). Ewert and Hollenhorst (1997) outline experiential qualities of adventure recreation that stem from this interaction of risk and the natural environment, most of which can also be attributed to mountaineering: clear focus, extreme concentration, spontaneity of action, personal control, intense enjoyment, a means to crystalize selfhood through personal testing, provide life meaning and perspective, confer awareness of one's own mortality and improved fear-coping mechanisms.

In another study, Ewert (1985) analyzed the underlying motives of mountaineers in Mt. Rainier NP, Washington, via surveys. The following are critical factors of the experience that were discovered: *challenge* (personal testing, excitement accomplishment), *catharsis* (to slow the

mind, for relaxation, to get away), *recognition* (to show others, to be known as a mountaineer), *creative opportunities* (to use one's mind, to help others, to solve problems), *locus of control* (making decisions, to develop abilities, to gain control, to form friendships) and *physical setting* (enjoying wilderness, to view scenery, to be close to nature).

Ewert's (1994) study used his (1985) study as a basis to outline the overall motivational structure for the participation in mountaineering. Study participants who had recently completed a mountaineering expedition at Mount McKinley, Alaska, were given a questionnaire and through quantitative analysis, the motives for mountaineering were produced and ranked. Table 2.3 shows these factors.

Table 2.3 Motives for High-Altitude Mountaineering

Beginner Mountaineer	Intermediate Mountaineer	Expert Mountaineer
Aspects of Climbing 1. Use climbing skills 2. Develop climbing abilities 3. Make decisions 4. Sense of control 5. Personal testing	Decision-making/Team Effort 1. Make decisions 2. Use my mind 3. Be part of a team effort 4. Friendship 5. Sense of control over oneself	Exhilaration/Excitement 1. Exhilaration 2. Excitement 3. Use physical skills 4. Accomplishment
Image 1. To show others 2. Competition 3. Recognition 4. Be known as a "mountaineer"	Exhilaration/Excitement 1. Accomplishment 2. Exhilaration 3. Excitement 4. Use physical skills 5. Personal testing	Self-expression 1. Self-expression 2. Creativity
Exhilaration/Excitement 1. Sense of accomplishment 2. Exhilaration 3. Excitement	Image 1. Competition 2. To show others 3. Recognition 4. Be known as a "mountaineer"	Decision-making/Team Effort 1. Make decisions 2. Use my mind 3. Be part of a team effort
Nature 1. Scenery 2. Be close to nature 3. Experience the wilderness	Nature 1. Scenery 2. Be close to nature 3. Photography 4. Experience wilderness	Catharsis 1. Disengage from regular life 2. Personal testing 3. Personal values
Self-expression 1. Self-expression 2. Use my mind	Catharsis 1. Slow mind down 2. Disengage from normal life 3. Solitude 4. Get away from authority	Image 1. Be known as a "mountaineer" 2. Help others 3. To show others 4. Use equipment
Social Aspects 1. Friendship 2. Be part of a team effort		Risk Taking 1. Because of the risk 2. Use climbing skills
		Expedition Climbing Experience 1. Develop climbing abilities 2. Be close to nature 3. Experience wilderness

Adapted from Ewert (1994, pp. 16-17)

Although this thesis is focused solely on intermediate mountaineers, it is interesting to note the different motives of each experience level in Ewert's study. Several of the factors above relate to optimal arousal and *flow*, such as exhilaration, sense of control over self and excitement. Table 2.3 shows that intermediate mountaineers exhibit *flow* as their second most important motive, with decision-making/team effort in first place. As their relationships with other climbers and the practice of mountaineering itself is cultivated, mountaineers provide themselves with more opportunities for action and improve their capabilities, thus providing for the challenge-skills balance and ultimately experiencing more *flow* (Delle Fave et al., 2003).

Loewenstein (1999) echoes some of Ewert's findings, but divides the motives for the experience into four categories: *self-signaling*, *goal competition*, *mastery* and *meaning*. "Although loath to admit that they care about public acclaim..." (Loewenstein, 1999, p. 321), mountaineers have the desire to impress. This *self-signaling* is about being part of a unique group of recreationists. *Goal competition* is a visible motive, with the drive to reach the summit of a mountain.

The visceral need to complete a self-determined goal often takes on a life of its own and becomes divorced from changing material incentives. Once a mountaineer has set his signs on a peak, the goal of making the summit becomes detached from rational calculations about the cost of achieving the goal (Loewenstein, 1999, p. 327).

Mastery refers to proficiency in skills, mental focus and an attempt to control the mountaineer's environment.

I find that for me, to take charge of my life, to take a chance, to take a risk, is very important... You make conscious decisions to take a chance, and when you take that chance you take control of your life, and when you take control of your life it has lots of benefits for you. It's confronting your fears head on. It's confronting a lot of human fears, fear of death, fear of falling, confronting things like laziness, inertia and being totally responsible for yourself, which is uncommon in our world today, and I think that's why I like it. It's immediate gratification. It gives you a sense of self-worth. It may be an illusion, but it's an important illusion (Heywood, 1990, p. 5).

This perceived control reduces fear, even though, as Heywood describes, it may be an illusion. Finally, Loewenstein (1999) suggests that *meaning* is provided to the life of the mountaineer through climbing exploits. Renowned mountaineer, Joe Simpson, describes the intangible sensation that climbing provides:

This is who you are; why you do this, I thought, and ginned broadly all the way to the top of the pitch, delighting in the intricate mixture of power and subtlety, the delicate balance

between gymnastic dance and thuggish strength. I became entranced, absorbed in the game of reading the ice. The feeling of invincibility was infused with the wondrous irrationality of what I was doing – immutable, anarchic living, the essence of climbing, of simply being (Simpson, 2003, p. 115).

The research discussed above provides a detailed picture of the mountaineering experience. However, much of their data was collected using surveys before, after and during mountaineering expeditions – methods sound in terms of the temporal implications of recounting an experience, yet perhaps not as comprehensive as a qualitative approach which has as the goal of accessing the rich data describing the reasons why mountaineers do what they do. This research will attempt to provide a meticulously specific host of motives for intermediate mountaineers, based on the inquiries of the experts reviewed here.

2.6 Implications for Management

In order to allow mountaineers to continue to enjoy the resource on which they recreate, effective land management practices must be developed within Canada's Mountain Parks based on a balance of the desired experience of mountaineers and the conservation element of the PC mandate. The sheer number of people participating in recreational mountaineering, as well as their expectations, are changing. Land managers, need to be aware of these motivational and physical changes as implications (Hanley et al., 2002). The following sections are areas for consideration in implementing management plans for mountaineering.

2.6.1 Manage for Multiple Opportunities and Keep it Risky

Wilderness management, especially in parks, is often associated with limiting access to certain areas due to ecological integrity concerns, as well as safeguarding visitors from harm (Ewert & Hollenhorst, 1997). Throughout the French and Swiss Alps, safety interventions in the landscape have been installed to prevent mountaineers from getting hurt (i.e. ladders over major crevasses, tunnels through certain dangerous sections of routes, bolting on routes, fixed ropes). Risk protection is a major concern of park managers, for search and rescue planning and liability. However, Reinhold Messner, widely recognized as the greatest mountaineer of all time, defined these installations as a "grotesque attempt" to wipe out climbing risks (Delle Fave et al., 2003, p. 95).

This practice, although useful for increasing the overall level of safety, can also undermine the very essence of ...climbing, the excitement in the activity, adventure, challenge and opportunities for highly rewarding experiences such as *flow* (Delle Fave et al., 2003, p. 95).

Ewert and Hollenhorst (1997) reiterate this sentiment:

...since risk and danger are the *raison d'être* for adventure recreation, “safeguarding participants”, either physical modification of the resource or limitation of access will diminish or even destroy the very attraction of the setting (p. 25)

There may be a hidden price to installing too many safeguards as they provide easier access to dangerous locations for mountaineers who may not be experienced enough to make appropriate decisions in the face of danger. Installations exist on other major mountaineering objectives throughout the world, including on Aconcagua and Denali. These amenities,

...suggest that commitment, the very backbone of mountaineering, has been compromised by enhanced convenience and security – a situation that can lead to dangerous consequences (Johnston & Edwards, 1994, p. 464).

Ewert and Hollenhorst (1997) recommend only unobtrusive development in mountaineering locations. This does not suggest the rejection of all types of installations in a park, but rather limiting their construction, their obtrusiveness and a developing strategic location selection practices. By protecting the stimulating and challenging aspects of the landscape, key elements of the mountaineering experience can be preserved.

Mountaineers' skills and experience levels should be matched with appropriate activity settings - similar to the ROS approach, providing mountaineers with their desired biological, social and managerial conditions (Delle Fave et al., 2003; Pomfret, 2006).

The concept of motivational change with increased experience level would suggest that in areas with a variety of climbing routes...homogeneous management policies for all areas will not be in the user's best interest...Areas which attract the less experienced climber can be better managed to allow for greater control, use and socialization opportunities...climbing areas which attract the more experienced climber may better fit the recreational motivations of the user if they are kept more rugged, less crowded and less controlled than those areas which demand less climbing skill (Ewert, 1985, p. 249).

If mountaineers were provided with guidebooks, training and education on different sites that match their abilities, all the while learning about appropriate mountain behaviour, ethics and sustainable practices, parks' management could accomplish multiple goals at once, including maintaining the risk of the setting. Opportunities should be ample to avoid crowding and appeal to the desire of mountaineers for solitude (Hanemann, 2000). “In so doing, the ...experience could be preserved and opportunities for optimal experience offered” (Delle Fave et al., 2003, p. 95).

2.6.2 Market the Experience and Build Relationships with Interest Groups

Another recommendation to encourage mountaineers to enjoy their experiences is to market specific mountaineering experiences that fulfill client's needs (Pomfret, 2006). With an understanding of the complex motives of mountaineers, solid marketing strategies can be developed to educate climbers about the "full experience" and to encourage them to participate in a park. In order to appeal to these adventure seekers, Ewert and Hollenhorst (1997) recommend parks' management focus on three themes associated with satisfying outdoor experiences: 1) opportunities for communion with nature, 2) opportunities to build community, 3) opportunities for extension and renewal for self (p. 25). In order to market the full mountaineering experience, with the three themes listed above in mind, there are three steps that managers should follow: 1) address all the "images" upheld by mountaineers (i.e. consider the recognition and self-signaling element of the experience), 2) develop equipment and training packages suitable for mountaineers and 3) emphasize the parks' service and opportunity for quality experiences (Ewert & Hollenhorst, 1997, p. 25).

To that end, the UIAA recommends that parks attempt to build relationships with interest groups, such as mountaineering and climbing clubs, and that they aim to integrate environmental education into mountain guide training programs (UIAA, 1997). These organizations generally focus on the positive ethics of the sport, which are very strong in the climbing world, and this should be recognized as a contributing factor in sustainable recreation practices. If clubs and guides are included in the management of mountaineering areas, they are more likely to accept the principles followed by the managing organization (Hanemann, 2000).

2.6.3 Infrastructure Solutions

Although relatively easy access to mountaineering destinations is necessary in order to experience the factors previously discussed, unrestricted access and use in a park is not beneficial. It "usually leads to the sport being practiced in ways that are damaging to the environment" (Hanemann, 2000, p. 37). Hanemann (2000) provides a list of infrastructure solutions to prevent environmental impacts from mountaineering use and channel visitors. The list includes (but is not limited to): stabilizing approach trails to climbing crags and routes through environmentally vulnerable areas, creating common approach trails (this reduces the trail network impact on the environment), involving climbers in the care and maintenance of climbing areas (this helps conservation area efforts and increases acceptance of management actions), and

erecting trail signs with operational rules, regulations and closure information at the base of the approach trail or route. These suggestions focus primarily on the protection of the resource but are fairly unobtrusive and likely, would not interfere with mountaineering experience.

Hanemann (2000) recognizes that there is an awareness of sustainable climbing practices within the mountaineering community in Europe, and that if educated properly, this group would likely accept and appreciate these types of infrastructural solutions.

Chapter 3 Evaluative Framework: The 7Cs of the Mountaineering Experience

3.1 Introduction

The first phase of this research was designed to determine the critical factors of the mountaineering experience, the motives that drive participation for intermediate mountaineers. The number of academic papers examining this social science phenomenon is few, as exhibited in the literature review. Those that have attempted to examine the experience have used surveys and field research to collect data from mountaineers and have represented their findings quantitatively. However, the importance of qualitative research methods to understand the rich, detailed experience of mountaineers cannot be understated (Martel, 2012). “When research questions explore new territory, previous literature and theory may be inadequate for constructing frameworks for the study” (Marshall & Rossman, 1980, p. 38). There are virtually no precedents for this research, thus a creative approach employing innovative methods must be taken in order to navigate this new territory.

Narrative is an original way of getting to know the world and transmitting that knowledge. By the telling of stories and listening to stories we come to know ourselves and the world (Gjedde & Ingemann, 2008, p. 121).

During research design, a disconnect was observed: a multitude of experience-rich stories exist in the pages of mountaineering narrative literature yet its potential as a knowledge bank for experiential data has not been acknowledged. It would seem that mountaineers desire to record and recount their experiences in meticulous, ethnographic detail. Perhaps this is because, as a recreational group, they are considered participant/observers: they develop long-term relationships with their environments and comrades, and they are “socially aware, self-reflective travellers” (Johnston & Edwards, 1994, p. 470). “...a close reading of [this] literature reveals [a] myriad of clues about their motives” (Loewenstein, 1999, p. 317).

The literature of the mountains is transcendental by nature. Because language is limiting it contains the inevitably incomplete record of the climber/writer’s sojourn in the ideal world, which though incomplete, still provides the reader with a vicarious account of enlightenment achieved by the climb (Vause, 2005a, p. 439).

An ethnographic approach was used to scrutinize mountaineering narrative literature and to determine the critical factors essential to the experience, as this mode of inquiry is considered to be effective in the qualitative examination of social experiences and cultural phenomena (Marcus, 2013). After performing the subsequent analysis of the content in these

mountaineering narratives, an evaluative framework for the critical factors of the mountaineering experience was produced: *The 7Cs of the Mountaineering Experience (7Cs)*. The development and results of this framework are discussed in this chapter. Analysis of the literature described here is not enough to understand the multifaceted mountaineering experience. However, the second phase of this research, the intensive KI interviews, will be used to validate the 7Cs.

3.2 Narrative Literature Review

Storytelling is one of the earliest art forms known to mankind; it is a mode of communication and expression evoking imagery, sensations and experience through spoken word...Stories [are] repositories for knowledge for individuals, groups and societies (Gjedde & Ingemann, 2008, p. 121).

Mountaineering narratives range from short stories and climbers' journal entries describing day trips to epic tales of expedition accidents and accounts of survival on legendary climbing routes. Regardless of format, most of the authors reflect on their excursions with more insight than a simple recounting of events; the significance of the act of mountaineering and its subsequent life-altering impacts are the focal point (Loewenstein, 1999). These transformational experiences are recounted as stories to be shared, both inside and beyond the mountaineering community.

This phase of research undertook a comprehensive review of the stories of 33 mountaineers, in order to determine the critical factors of the mountaineering experience from the experts' perspective. Thirty-six narratives were examined in total (list of narratives analyzed can be found in Appendix 1). The narratives reviewed were chosen based on a variety of factors: temporal, geographical, familiarity and ease of access. Gjedde and Ingemann (2008) suggest that a relationship exists between the author, the text and the readers. This relationship was considered and influenced the choice of narratives. For example, some mountaineering novels are well known because of the epic tales they recount and/or the narrative abilities of the storyteller (e.g., *Into Thin Air* by Jon Krakauer, 1997). Attempts were made to consider what the intermediate mountaineer would be reading, and narratives deemed appropriate were then selected. Due to the subjective relationship between author and reader referred to by Gjedde and Ingemann (2008), my potential bias, as the researcher, is recognized but cannot be eliminated as it provides context for an understanding of the mountaineering experience being recounted.

The timeframe of the narratives chosen spans from the early days of mountaineering in 1895, with Albert F. Mummery's telling of his European mountaineering pursuits and Alfred J.

Ostheimer's 1920s pioneering expeditions in the Canadian Rockies, to the recreational exploits and first ascents of Joe Simpson and Jon Krakauer in the 2000's. This time span was chosen to assess whether or not there had been any major temporal differences in the experience motives of the early days of mountaineering to the present day. The narratives were then also chosen to include each of the geographic study areas: the Canadian Rockies, the French and Swiss Alps and the Scottish Highlands. Authors either originated from these locations, or were visiting and climbing there. Literature from other celebrated mountaineering locations was examined as well, including the Himalayas, the Andes, and various locations across the United Kingdom. Authors reviewed ranged from famous TV personalities to mountaineering guides, expeditionary teams, journalists, geographical and geological researchers and recreational mountaineers. Although the authors in this field are predominantly male, an effort was made to include some female authors (brief biographies of narrative authors are included in Appendix 1). Finally, a concerted effort was made to ensure that all of the narratives chosen were readily available at libraries and bookstores.

Concurrently, a review of the research of a prominent Canadian mountaineer and author, Chic Scott, was conducted. Scott also acted as a KI for this research. His raw data, in the form of short transcripts of 90 interviews with other renowned Canadian mountaineers, illustrates "what is special about mountaineering" and, more specifically, "what is special about Canadian mountaineering" (Scott, 1990). This data was made available through the Whyte Museum, Banff, AB.

3.3 Methods

The main qualitative method used in this phase of the research was an ethnographic emergent theme analysis. Quotations were extracted from the chosen narratives that identified and highlighted why mountaineers participate in, enjoy and promote this type of recreation. From these excerpts, a list of key themes was produced and an initial grouping of similar themes was conducted. The frequency of theme appearance was recorded. A similar method of theme extraction was conducted with Scott's data. The two sets of themes, one from the narrative analysis and one from Scott's data analysis, were compared and compiled to produce a thorough list of motives.

Approximately 30 themes contributing to the mountaineering experience were identified. These themes were again grouped, re-categorized and refined to produce a more concise list,

wherein more specific categories were defined. Themes were adapted based on Ewert's (1985) and (1994) precedent research. By using Ewert's discovered factors as a foundation, seven critical factors were deciphered, each with components defining the motivations for mountaineering.

Several of Ewert's factors did not match the rest of the data discovered, and thus other factors were nominated to encompass these factors while sub-categories were shifted between the critical factors. These processes produced seven critical factors, or the *7Cs of the Mountaineering Experience: Control, Challenge, Community, Context, Creative Opportunities, Catharsis and Chrysalis*.

3.4 Results

Table 3.1 displays the 7Cs, each with their own components. The 7Cs and their components are the results of the analysis previously described and will act as the evaluative framework for analysis of the interviews in Phase II of this research. The 7Cs refer to the factors that influence mountaineering participation and will be described in detail in the following sections. It can be seen that the narrative quotations used to support and explain each *C* often describe more than *C*. This is because the 7Cs and their components are not separate, independent factors. There appears to be an interaction between them, dependent on the mountaineer, and this interaction defines the mountaineering experience.

Table 3.1 *The 7Cs of the Mountaineering Experience* and their Components

CHALLENGE	CONTROL	COMMUNITY	CONTEXT	CREATIVE OPPORTUNITIES	CATHARSIS	CHRYSLIS
• Mental and physical challenge	• Sense of control • Self-reliance • Independence • Lack of external rules and restrictions	• Friendships • Camaraderie • Sharing • Sense of community	• Wilderness experience • In touch with nature • Engaging with landscape	• Problem solving • Complexity • Decision-making • Learning process	• Mindlessness • Simplification	• Therapeutic • Spiritual connection • Self-discovery
• Excitement • Exhilaration • Adventure • Adrenaline high • Fun • Happiness	• Experiencing the “unknown” • Vulnerability • Uncertainty	• Uniqueness	• Scenery • Beauty • Geography • Rhythms of the natural world	• Captures imagination • Induces passion • Stimulating	• Relief • Relaxation • Release • Escape	• Inspires confidence • Self-esteem • Sense of identification
• Physical act of climbing • Skill mastery • Technical difficulty	• Extreme focus • Engagement • Heightened awareness • Flow	• Elevation gain • Summit Fever • Tick lists	• Remoteness	• Discovery • Exploration • Travel new places	• Liberty • Freedom	• Affirmation and enhancement of life • “Truly living” • “Way of life”
• Accomplishment • Fulfillment • Reward	• Real consequences • Serious commitment • Danger • Risk • Mortality • Fear	• Recognition • Competition	• Peace • Tranquility	• Historical connection • Mountaineering idols	• Solitude	
• Deprivation • Hardship • Primitiveness			• Variety			

3.4.1 Challenge

The demands of mountaineering – the physical and emotional struggles, the very real hazards – made it more than just a game. Climbing was like life itself, only it was cast in much sharper relief...(Krakauer, 1997, p. 141)

The first of the 7Cs, *Challenge*, includes the following components of the mountaineering experience: a) *mental and physical challenge*; b) *excitement, exhilaration, adventure, adrenaline high, fun, happiness*; c) *the physical act of climbing, skill mastery, technical difficulty*; d) *accomplishment, fulfillment, reward* and e) *deprivation, hardship, primitiveness*. According to the narrative authors, *Challenge* appears to be the most influential experiential factor of the 7Cs. The intricacies of this factor are many and can have secondary influences on the mountaineering experience, as illustrated by the following quotations.

a) *Mental and physical challenge:*

Indeed, if we consider for a moment the essence of the sport of mountaineering, it is obvious that it consists [of] pitting the climber's skill against the difficulties opposed by the mountain...To set one's utmost facilities, physical and mental, to fight some grim precipice, or force some gaunt, ice-clad gully, is work worthy of men (Mummery, 1895, p. 331).

c) *The physical act of climbing, skill mastery and technical difficulty:*

The reason I was attracted to climbing initially was for the physical movement of it, like other athletes who like their particular motions. There is something ridiculously nice about cramponing. Then it became more than the motion because the mountains are the only venue, the only place, where I feel totally at home (Tackle, 1990, p. 43).

Describing an expedition to reach the summit of Mt. Everest, Grylls (2000) describes e) *deprivation, hardship, and primitiveness*:

Neil described it later as "like being tortured", which made me feel a little better, to think that someone else loathed it with the same deep vengeance. There was nothing remotely pleasant or romantic up here now – it just hurt (p. 154).

3.4.2 Control

The second factor is *Control*, which includes the following components: a) *sense of control, self-reliance, independence, lack of external rules and restrictions*; b) *experiencing the unknown, vulnerability, uncertainty*; c) *extreme focus, engagement, heightened sense of awareness, flow*; and d) *real consequences, serious commitment, danger, risk, mortality, fear*. This factor refers to a perceived control of one's destiny because of well-honed climbing skills

and mountain literacy, whilst recreating in an entirely uncontrollable environment. Despite the mountaineer's desire to pit his strengths and knowledge against the forces of the mountain, there exists within him the attraction to the unknown and the uncertain outcomes of risky situations. This form of recreation requires serious commitment from its participants, who seem to be motivated by the potential for danger and death and equally by the sensation of *flow* and of being alive. This juxtaposition is illustrated by the following two quotations:

During my thirty-four-year tenure as a climber, I'd found that the most rewarding aspects of mountaineering derive from the sport's emphasis on self-reliance, on making critical decisions and dealing with the consequences, on personal responsibility (Krakauer, 1997, p. 176).

The outcome needed to be uncertain, the prospect frightening, the potential for injury high, otherwise there would be nothing learned and nothing proved. I didn't want to die but if death hadn't been ever-present then I doubt I would have been there. It set the parameters of the game (Simpson, 2003, pp. 115-116).

Vause (2005), quoting Outside Magazine's William B. Furlons, suggests that c) *extreme focus, engagement, heightened sense of awareness*, and *flow* play an important role in personal mastery in the face of uncertainty:

The idea of risk must be clarified; it is more than just "the joy of survival or a sense of self-validation". It [is] a powerful psyche and visceral kick – an exhilaration, a euphoria, a sense of heightened awareness (p. 441).

Renowned Italian climber Walter Bonatti states that climbers,

...willingly take risks, not for anything material, but for the uplift of the inner spirit which directs the character of humans... (Vause, 2005a, p. 440).

Echoing Bonatti's sentiment, Steph Davis (quoted in Martel, 2007) claims that her appreciation for the ever-presence of risk is not one dimensional, but is based on its resultant benefits:

I love that element of risk that makes it urgent and deep. That really captures me. I need it to be deep, serious, life threatening, intense – that clicks me in a little harder. It makes me focus. I like that directed effort. I love being exhausted and having to maintain technique (p. 226).

3.4.3 Community

The third factor of the experience is *Community*. This factor includes the following components: a) *friendships, camaraderie, sharing and sense of community*; b) *uniqueness*; c) extrinsic elements such as *elevation gain, summit fever, tick lists* and d) *recognition* and

competition. These components appear to be motives for mountaineering participation due to the “fellowship of the rope” – one is tied to one’s climbing partner and the responsibility for each other’s lives rests in each other’s hands. Bonds developed between mountaineering partners have been likened to those formed between military personnel – comradeship that cannot be rivaled (Grylls, 2000). Scott’s data indicated that this connection with others was one of the most important factors for the Canadian mountaineers interviewed. The narratives analyzed also illustrate this:

Solitude and companionship. Paradoxically, the mountains provide both. The companionship provided by climbing together is almost universally valued by mountaineers. The friendships established are lasting and irreplaceable...For the deepest friendships spring from sharing failure as well as success, danger as well as safety. There is really no substitute (Sayre, 2005, p. 172).

A mountaineering relationship, at least in the highest climbing levels, is a very strong thing. Everything is laid bare. You know your partner’s strengths and weaknesses, most of his hopes and ideals. You are both working at levels often close to the limit. It’s a big responsibility to have another’s life in your hand, or to trust yours completely to someone (Haston, 1972, p. 81).

...climbing provided a sense of community...To become a climber was to join a self-contained, rabidly idealistic society, largely unnoticed and surprisingly uncorrupted by the world at large. The culture of ascent was characterized by intense competition and undiluted machismo, but for the most part, its constituents were concerned with impressing only one another (Krakauer, 1997, p. 23).

3.4.4 Context

Context refers to the physical setting in which the recreation takes place and the mountaineers’ connection to and interaction with that space. *Context*, unlike the six other Cs, is present in all positive and negative mountaineering experiences. The optimal situation in which mountaineers feel motivated includes the following components: a) *wilderness experience, in touch with nature, engaging with landscape*; b) *scenery, beauty, geography, rhythms of the natural world*; c) *remoteness*; d) *peace and tranquility* and e) *variety*. It is evident that the mountaineers’ interface with the elements is what attracts them. Simply viewing the mountains from afar, although enjoyable, is not as important as an interaction with them. The degree to which mountaineers interact with their complex environments seems to vary. While some climbers appreciate the minutia of the experience (e.g., the colours of the ice beneath their crampons), others focus on the broader perspective (e.g., the scenery and the grandeur of the

landscape that surrounds them). The following quotations demonstrate the importance of the *Context* to the mountaineering experience:

Without any doubt...the draw of the mountains is their simplicity. That fierce force of nature, where the wind howls around you and you struggle for breath and life itself; it is strangely irresistible to man. The simple sound of ice beneath your crampons, crunching as the teeth bite into the frozen surface. The raw beauty of being so high and so remote...seeing the greatest mountain range in the world sprawled beneath you. All of it inexplicably draws us to them (Grylls, 2000, p. 275).

First on my list, but not necessarily first in importance, I would mention beauty. There are the colours: black rock and ultramarine shadows, pure white swell of snow, turquoise and amethyst crevasses, and the diamond glitter of sun on ice. In the afterglow of sunset, the air itself becomes pink and gold. And there are infinite clean shapes: wind carved snow, fluted ice, weather stone, and cloud-brushed sky. Most of all, there are the great mountains themselves set in their rivers of ice, changing grandeur in every light and every weather. If a person will cross the ocean just to look at the beauty of a cathedral, why would he not do as much or more to see sights such as these? (Sayre, 2005, p. 171)

3.4.5 Creative Opportunities

One of the necessary components of adventure recreation is the ability to make decisions and to think creatively, with confidence in the face of risk (Ewert, 1985). Ewert (1985) discovered that *Creative Opportunities* play a major role in motivating mountaineering participation and this appears to be well supported by the narratives analyzed. *Creative Opportunities* is the fifth of the 7Cs and includes the following components: a) *problem solving, complexity, decision-making, learning process*; b) *captures imagination, curiosity, induces passion, stimulating*; c) *discovery, exploration, travelling to new places* and d) *historical connection, mountaineering idols*. The inspiration that is gleaned from discovering new places and actively choosing to take part in difficult experiences appears to be an essential element of the experience. The imaginations of some mountaineers also appear to be stimulated by a historical connection to legendary climbers and their exploits and first ascents of celebrated routes. This prompting of imagination, passion and decision-making is illustrated by the following quotations.

a) *Problem solving, complexity, decision-making, and learning process*:

For me, it wasn't actually about making the summit. Rather it was about choosing the struggle, choosing to overcome, choosing the hard route, and choosing discomfort over comfort (Loeffler, 2008, p. 3).

c) *Discovery, exploration, and travelling to new places*:

In no way do I intend to belittle the beaten track. It is the place for climbers who like it, or who cannot journey beyond, but to my mind, as to Mummery's, the spell of the unknown is the valuable, progressive stimulus of mountaineering. It is the new country, the unseen valleys, uncrossed glaciers, unclimbed peaks, that beckon the wandering and adventuring spirit within the mountaineer. They are the offerings of sacrifice upon the altar of the sport (Sandford & Whelan, 2002, p. 127).

d) *Historical connection and mountaineering idols:*

As always in climbing, some routes tend to capture my imagination in an immediate and distinctive way. It may simply be the aesthetic beauty of the line or its magnificent position; it may have a reputation as a classic hard and intimidating climb or it may simply have history. By which I mean the manner of its first ascent made it stand out as a famous landmark piece of climbing for its era. For that alone it would be coveted (Simpson, 2003, p. 97).

3.4.6 Catharsis

Despite the presence of risk, danger and occasionally fear, it would appear that mountaineers experience a sense of relief and relaxation while participating in their chosen recreation. Just as one can experience an escape through meditation (Csikszentmihalyi, 1990), so too can one feel a similar release, a sense of freedom and simplification from mountaineering. Coupled with the solitude that the mountains can provide, these feelings produce the essential element of *Catharsis*. This element of the experience includes the following components: a) *mindlessness, simplification*; b) *relief, relaxation, release, escape*; c) *liberty, freedom* and d) *solitude*. These components are demonstrated in the following quotations:

Mountaineering returns one to the slower natural rhythms of the rising and setting sun, the changing weather, and the simple physical needs of the day (Sayre, 2005, p. 173).

And before I started to move I felt the familiar feeling that came when I was about to do something hard. A mental and physical relaxation, a loosening of the muscles so complete that even the face relaxes and the eyes widen...In that exquisite moment before the hard move, when one looks and understands, may lie an answer to the question why one climbs (Moffat, 1961, p. 67).

There was a raw simplicity in what I was doing. My mind was entirely focused on every move I made; nothing else clogged my thoughts. It is this straight simplicity that I knew drew men and women to climb. Man is living to his utmost, straining everything towards one single purpose. It made me feel alive (Grylls, 2000, p. 226).

3.4.7 Chrysalis

In order to pupate into adulthood, a caterpillar must transform its body into a protective shell, thus allowing it to rearrange its cellular makeup and then emerge as a butterfly. The shell that houses this metamorphosis and redevelopment is called a chrysalis (Wilson, 2013). In the context of the mountaineering experience, *Chrysalis* mimics the caterpillar's transformation, referring to the development of the mountaineer's spiritual and therapeutic connection to his or her form of recreation. It signifies the positive, life-affirming changes that the mountaineer undergoes and the resultant appreciation for the life-enhancing qualities of this activity. It is the most complex of the 7Cs in terms of its explicability to those who have not experienced it and includes the following components: a) *therapeutic, spiritual connection, self discovery*; b) *inspires confidence, self-esteem, sense of identification* and c) *affirmation and enhancement of life, "truly living", "way of life"*. Although a critical factor of the experience, it is not mentioned often in the narratives. However, when this transcendent factor is mentioned, as in the following quotations, the authors attempt to indicate its importance by using elaborate, descriptive explanations.

Faced with death, the mountaineer will try his hardest to survive and, if successful, will return to mountain after mountain, year after year, to dance the same weird jig along the very boundaries of life. You create the potential for death by going to the mountains and taking risks, and yet you do not want to die. It seems to make no sense. It makes no sense until you have stepped too close to the edge. Then you understand why you went there and perceive that you have enhanced your life, affirmed what it is to be alive by realizing what it could be like to die. It has been argued that climbing mountains, tip-toeing along the knife edge between life and death, is a way of looking into the ultimate unknown (Simpson, 1993, p. 232).

...mountaineering is not only about new horizons...but includes another element, related to a sense of "belonging in the world, which can easily be swamped by egocentricity, and the loss of which would ruin everything. And mountaineers believe they have discovered something about this "oneness", or sense of identification, which is worth stating explicitly: you cannot feel it in the civilized world, only in the primitive (Bartlett, 2005, p. 369).

3.5 Discussion

Themes derived from the narrative data and Scott's data were similar. However, there were noticeable differences in the number of themes derived, the thoroughness of each grouped theme and their frequency of appearance in the data. Scott's data derived 23 grouped themes.

The narrative analysis derived comparable themes, to include an additional 5. For example, the grouped theme of *real consequences, serious commitment, danger, risk, mortality, and fear* only appeared in the narrative data analysis and was not present in the analysis of Scott's data. This is likely due to the fact that Scott's data was derived from interview transcriptions of a couple of sentences to a short paragraph, whereas the narrative data was extracted from novels and short stories. These stories are far more explicit and discuss in detail the author's motivations for mountaineering. Through the recounting of a harrowing mountaineering expedition, an author has the opportunity for deep self-reflection and to express motivations for participating. Scott's data was not as comprehensive and this is likely the cause for the difference in theme development. Scott's interview participants were asked, "what is special about mountaineering?" and "what is special about Canadian mountaineering?" Most participants answered with a few descriptive sentences such as:

The freedom of mountaineering, the beauty of the mountains, the unbelievable variety you get into. Flora. Trees. Being completely away...you can relax. Exhilarating idea that you can overcome yourself (Scott, 1990).

In comparison to the quotations extracted from the narratives, this excerpt is concise and lacks the same level of ethnographic depth.

There is an element of self-selection by the authors that is responsible for the difference in data here, as well. They are a specialized group of extreme adventurers, who have chosen to undertake these journeys and then, to write about them. They are particularly good at self-reflection and likely touch on deeper elements of the experience that may not come up in casual conversation. It is understandable, then, that the level of detail in the novels and short stories was responsible for the comprehensive nature of the themes that emerged from the narrative analysis.

There was also an apparent difference in the frequency of appearance of the themes between the two sets of data. The factors that exhibited similar frequencies of appearance, suggesting similar levels of importance to the experience, were *Catharsis, Chrysalis, Challenge* and *Creative Opportunities*. However, it should be mentioned that the differences noted in the 3 other factors, *Community, Context* and *Control*, are likely not due to any temporal implications of data analysis because both sets of data were analyzed within several weeks of each other.

The most notable difference was the frequency of appearance of *Control* in the narrative data and Scott's data. *Control* represented the highest frequency of appearance in the narrative data. However, it was the least mentioned factor in Scott's data. A speculative reason for this is that the majority of the narratives describe stories in which exceptionally talented climbers willingly expose themselves to risky situations in attempts to complete extraordinary expeditions and reach iconic summits, in remote mountain ranges (Bonington, 1973; Grylls, 2000; Haston, 1972; Krakauer, 1997; Loeffler, 2008; Moffat, 1961; Ridgeway, 1990; Sandford & Whelan, 2002; Simpson, 1993, 2003; Vause, 2005b). Thus, *Control* a) *self-reliance* and b) *experiencing the unknown* and *vulnerability*, were pervasive themes throughout the texts. Again, Scott's interviewees may not have elaborated sufficiently to explain the contexts of their answers and details of expeditions and dangerous climbs were not examined.

Community was slightly more critical to the experience in Scott's data. One possible explanation for this is the fact that Scott's interviewees were asked to detail what was important to them about Canadian mountaineering. Most of these interviewees described the climbing and mountaineering community in Canada as small, close-knit and exhibiting strong relationships. The increased frequency of appearance of the *Community* factor is likely due to the leading nature of the question the interviewees were asked. This is likely the reason for the discrepancy between the *Context* factors as well, which also exhibited a higher level of importance in Scott's data. In response to the same question, many interviewees mentioned the beauty of the Canadian Rockies and described elements of the scenery and geography that are exclusive to this region, thus increasing the frequency of appearance of the *Context* factor.

There did not appear to be any major differences in the motives for mountaineering between the earlier narratives and the more recently written ones – save a few, small obscurities. One such minor disparity was displayed by the earlier narratives, wherein the authors, explorers and adventurers, did not seem to examine the cathartic elements of *escape*, *freedom* and *discovery*, as much as the later narratives. It is reasonable to assume that this is because many of these early mountaineers were pioneers in their sport, exploring new, untouched territory. So the need for an escape from the hectic every day life was not as great. Also, the earlier narrators were more poetic in their descriptions of *Context* components: *beauty*, *scenery* and *rhythms of the natural world*. Examples of Mummery's and Ostheimer's late 1800s-early 1900s romantic observations were presented in the previous results section. As mentioned in Chapter 2.0, Muir

initiated an expressive, whimsical view of the wilderness experience during the same era and it is possible that these narrators could have been influenced by this popular style of literature at the time. More recent climbers touched on contextual components of the experience, like the geography of the mountains, but mainly alluded to the challenges it presented.

Despite the frequencies of appearance indicating the relative levels of importance of the 7Cs, it should be noted that they do not appear to influence the mountaineering experience individually. Instead, the factors act as an interconnected framework for the experience, with complementary and contradictory factors. Figure 8 shows the interconnectedness of the 7Cs: their complementary and contradictory factors. For example, distinguished mountaineer, Sir Chris Bonington suggests that *focus* and *intense concentration* (*Control*) elicit *freedom* and *liberty* (*Chrysalis*) (Bonington, 1973). Most of the quotations cited in the previous section exhibit these secondary influences and complementary components. Bonatti's sentiment that climbers "...willingly take risks, not for anything material, but for the uplift of the inner spirit..." (Vause, 2005a, p. 440), illustrates the positive one-way relationship between *risk* (*Control*) and a *spiritual connection* (*Chrysalis*). In Figure 8, green, unidirectional arrows represent these complementary correlations. In some cases, the 7Cs and their components appear to have a two-way relationship. For example, *tranquility* can prompt a sense of *relaxation* and vice versa. A dual-directional, green arrow exhibits these relationships. In spite of the many positive correlations between the 7Cs, there exist equally strong opposing factors. For example, while mountaineers desire a *sense of control* of their experiences, they also appear to long for a sense of *vulnerability* and are in seek of the *unknown*. Other contradictory components include *truly living* and *mortality*, *camaraderie* and *solitude*, *simplicity* and *complexity*, and *relaxation* and *excitement*. The red arrows represent these contradictory elements in Figure 8.

This research will proceed on the premise that the 7Cs are not quantifiable, separable or independent and thus, the framework will be used as a whole. It would appear that the 7Cs each have a role to play in the experience but the degree to which they each influence the mountaineer is dependent on the subjective desires and expectations of the individuals.

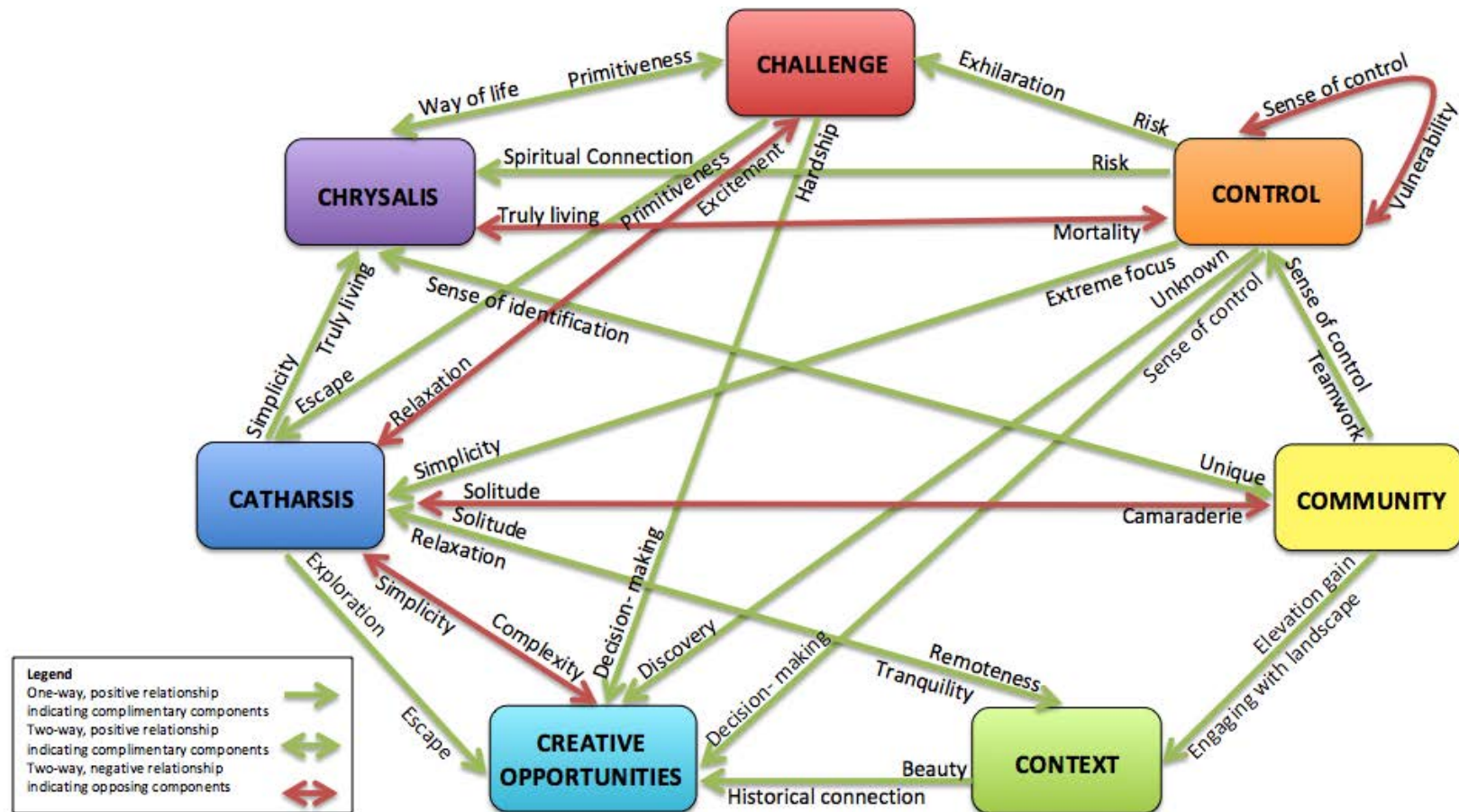


Figure 8. Complementary and Contradictory Components of the 7Cs

3.6 Summary

The aim of Phase I of this research was to identify the critical factors of the mountaineering experience. By examining a series of mountaineering narratives and previous interview data, using a thorough, ethnographic emergent theme analysis, 7 critical factors were revealed: *Challenge, Control, Community, Context, Creative Opportunities, Catharsis* and *Chrysalis*. These 7Cs detail the extent of the motives for mountaineering. This collection of interconnected factors, and their components, will be used as an evaluative framework for the KI interviews in Phase II. With few precedents, this framework will stand as solid ground on which to analyze interview data. It will also assist in developing recommendations for PC to ensure they meet both elements of their dual mandate: protection of the resource and positive visitor experiences.

Chapter 4 Methods

This chapter details the methods employed during Phase II: Validation of the 7Cs and Study Site Assessment.

4.1 Data Collection

Similar to Phase I, ethnographic and phenomenological approaches were chosen to examine the mountaineering experience. Ethnography is the study of cultures: the examination of social and cultural phenomena and resulting human behaviours from the point of view of the culture being examined (Neuman, 1991). Phenomenology is the study of experience and consciousness: the investigation of how people experience life events and how each of us understands and interprets these experiences differently (Schutz, 1970). Both of these qualitative research approaches focus on the importance of personal experience in social science. An effective method of accessing personal experience data for scientific study is the KI interview.

Interviewing is a powerful way of helping people to make explicit things that have been hitherto implicit – to articulate their tacit perceptions, feelings and understandings (Arksey & Knight, 1999, p. 32).

The KI interview was chosen as the method of data collection for this phase, as it has been described as an effective way to capture experiential data for this type of qualitative social research (Gilchrist, 1999). Informants are professionals, experts or leaders who are intimately familiar with the culture being studied and the nature of their position within that culture. They possess knowledge and information that can be extracted by the researcher for analysis and have connections within the community (Bryman & Burgess, 1999; Kumar, 1989; Neuman, 1991). KI interviews are appropriate when “understanding the underlying motivations and attitudes of a target population is required” (Kumar, 1989, p. 2) and “when the primary purpose of the study is to generate suggestions and recommendations” (Kumar, 1989, p. 3). The goal of this phase was to develop an understanding of such desires and motivations of mountaineers and how they relate to recreation management actions. Neuman (1991) states that an ethnographic approach works well to uncover this tacit knowledge, delving into and producing a rich depiction of specifics:

From one point of view...doing ethnography is establishing rapport, selecting informants, transcribing texts...mapping fields, keeping a diary, and so on. But it is not these things, techniques and received procedures that define the enterprise. What defines it is the kind of intellectual effort it is: an elaborate venture in...“thick description” (Geertz, 1973, p. 6).

Nineteen KI interviews were conducted with two distinct categories of participants: a) professionals and experts in the field (14) and b) intermediate mountaineers (Intermediates) (5). The objective in interviewing KIs from these groups was three-fold: 1) to validate the 7Cs developed in the narrative literature review by acquiring an understanding of the critical factors of the experience from the KIs' perspectives, 2) to discover the current recreation and mountaineering management situations in the study sites and mountaineers' reaction to them, and 3) to assess each study sites' ability to provide for the optimal mountaineering experience and consequently produce recommendations for the provision of this experience in the Mountain Parks. The foundational concepts developed in the professional/expert interviews were used as the framework for the second set of interviews with the Intermediates. Interviews were conducted between 24 June, 2011 and 24 January, 2012. The study sites were visited in the following order during that period: French Alps, Swiss Alps, CNP and finally, the Mountain Parks.

Several of the participants were identified through prior contact with the researcher, either through personal or professional connections. Before visiting each study site, they were invited to participate in the study via email. The snowball sampling technique was used to identify other potential participants, both Intermediates and professional/expert KIs. Once participants agreed to take part, they were sent an ethics consent form and a copy of the questions that would be asked during the interview.

The interviews were designed as semi-structured, semi-formal discussions and participants were asked different sets of questions, unique to their category of informant. Interview guides can be found in Appendix 2. Although the researcher prepared interview guides, which included a number of open and closed questions, they were usually used as aide-memoires to guide discussion. The interview guides were referred to during the course of the interviews and some participants were probed to elicit more information. However, this was not often required as most of the informants were effusive in their responses. According to Gray's (2004) recommendations for ensuring data accuracy, participants were offered the opportunity to clarify if the researcher had misinterpreted any of their responses. The flexible structure of the interviews allowed participants and the researcher to explore ideas that had not been previously anticipated. The researcher's freedom in this regard was vital as the objective of the research was to examine the KI's subjective views and experiences (Gray, 2004). This format also

appeared to encourage the participants to feel at ease with the researcher, and thus, prompted genuine responses. The more formal, closed questions were designed to elicit information on the current conditions and management at each study site.

It was decided that participants would not select a pseudonym, unless it was specifically requested. The researcher desired that the majority of participant contributions be public and cited because the nature of the material was, in general, not sensitive. However, some professional/expert participants contradicted each other, even within the same organization. Given that one of the goals of this study was to provide recommendations, it was important that the participants' affiliations be cited in order to outline barriers to implementation. Also, the researcher was confident that those chosen to participate as professional/experts would prove the validity of the data.

Ethics approval was obtained from the University of Calgary Conjoint Faculties Research Ethics Board. Participants were given two weeks to review direct quotations used in this document. Several did opt to alter some of their quotes and the researcher made all requested corrections. However, none of these alterations affected the content, or the context of their comments.

4.1.1 Key Informant Interviews: Professionals and Experts

Participants in this category emanated from four distinct groups: Mountain Guides; Parks and Land Managers such as PC and CNP staff; Interest Groups such as the Alpine Club of Canada (ACC) and the Mountaineering Council of Scotland (MCofS); and Subject Matter Experts (SMEs). The participants were chosen strategically based on the nature of their positions, experience levels and engagement with the mountaineering, guiding and park management communities. It was essential to interview participants who had differing opinions and thus members from various professional and recreational backgrounds were selected. Efforts were made to select both "typical" and "unique" informants, as described by Kumar (1989) although it was not always possible to discern who would present a dissenting opinion in advance. Table 4.1 below shows the geographic locations and affiliations of the professional/expert participants.

Table 4.1 Key Informant Interview Participants: Professionals and Experts

Location	Mountain Guides	Parks Management	Interest Groups	Subject Matter Experts (SMEs)
Mountain Parks	• Dave Stark: Association of Canadian Mountain Guides (ACMG) Mountain Guide, International Federation of Mountain Guides Association (IFMGA) Mountain Guide and Director of Operations at Yamnuska Mountain Adventures, AB	• Marc Ledwidge: PC Visitor Safety (VS) Manager, ACMG and IFMGA Mountain Guide • Grant Statham: PC Mountain Risk Specialist, ACMG and IFMGA Mountain Guide • Sandy Walker: PC Visitor Experience Product Development Officer • Reg Bunyan: PC Backcountry Product Specialist, and retired Park Warden • Jennifer Dubois: PC Facilities Analyst	• Marg Rees: ACC, Rocky Mountain Section Chair (RMS)	• Lynn Martel: Mountain author, climber and journalist • Chic Scott: Honorary Mountain Guide, climber, and mountain historian, previous instructor at ISM
Scottish Highlands		• Fran Potheary: Cairngorms National Park Authority (CNPA), Outdoor Access Officer	• Heather Morning: MCofS, Mountain Safety Advisor, IFMGA Mountain Guide	• Dr. Martin Price: Perth College, Director for the Centre of Mountain Studies, and UNESCO Chair for Sustainable Mountain Development
French and Swiss Alps	• Adrian Nelhams: IFMGA Mountain Guide, and Director of the International School of Mountaineering (ISM) * • David Hollinger: IFMGA Mountain Guide, and Director of Peak Mountain Training, UK *			

Note that although both IFMGA guides were interviewed in the European Alps, they were chosen because they have extensive guiding experience in both Europe and the United Kingdom, as well as some experience guiding in the Canadian Rockies.

Table 4.1 shows that some of the participants fit into more than one category, e.g. Grant Statham, listed under the Parks Management group, is also a Mountain Guide. This was not deemed a conflict of interest but rather supportive of the researcher's goal to discover both the critical factors of the mountaineering experience and information about PC's management intentions for mountaineers. Once a participant was categorized in a specific professional group, he/she was asked the questions from that group's interview guide. The interviews were designed to be approximately one hour in length but most ranged between 1 to 2.5 hours. All but two interviews were conducted in person, as face-to-face interaction is best when the research "question involves learning about, understanding and describing a group of people" (Neuman, 1991, p. 337). These interviews were conducted via Skype with participants from the MCofS and PC, who were not available when I visited their locations. Interviews were recorded on a digital voice recorder and only some notes were taken during the discussions, in order to develop better rapport and connection with the participants. The discussions began with factual questions about the participants' professional qualifications and mountaineering proficiencies, then moved on to more experiential questions, usually concluding with role-playing questions, such as "if you were a parks manager, what would you do to improve the situation?"

It can be seen that only two interviews were conducted in the French and Swiss Alps, both with Mountain Guides. This is due to two reasons: the lack of formal, consistent land management, recreation structure and governance in both Switzerland and France, making it difficult to pinpoint KIs conversant in as specific a research topic; and the lack of time and funding on the researcher's part to remain in these locations to find relevant participants. However, several of the other KIs interviewed in CNP, Perth and the Rockies had previous mountaineering experience in the Alps and were thus able to provide a broader view. Also, informal field research was conducted in these locations to gain a better understanding of the current conditions. My anecdotal personal experiences were recorded while mountaineering in Chamonix, France and Leysin, Zermatt and Grindelwald, Switzerland. Mountaineers, and the various forms of infrastructure supporting their recreation including alpine huts and guides' offices were observed without intervention. This type of field research is suitable when the investigation involves "learning about, understanding or describing a group of interacting people" (Neuman, 1991, p. 337).

4.1.2 Key Informant Interviews: Intermediate Mountaineers

The Intermediates were the focal user group in this study. Their interviews were designed to proceed as interactive story-telling sessions. With such a small sample group, and desiring rich, detailed data, it was determined that a survey would be of little use here (Marshall & Rossman, 1980). In order to get to the core of the experience, five mountaineers were asked to recall their best and worst mountaineering adventures. To ensure the reliability of the data, all five Intermediate participants were asked the same questions (Gray, 2004), and flexibility was built in to the interview process in order to allow for probing, if required. Interview guides were used (Appendix 2). These semi-structured interviews were also recorded on digital voice recorder with the consent of the participants, and the researcher took notes. Like the professional/expert interviews, the Intermediate interviews concluded with role-playing questions, such as “if you were a parks manager, what would you do to improve the situation for mountaineers?” Interaction with the Intermediates was designed to run for approximately one hour but often went much longer. Recruitment for participants was mainly through the ACC RMS. The researcher approached the ACC, requesting that a recruitment poster be distributed to their members asking for participants. The ACC passed along the researcher’s contact information to interested persons who then contacted the researcher if they wished to be involved in the study. As the qualitative data sought did not need to be statistically defensible, all interested parties recommended by the aforementioned organization were welcomed to participate. It just so happened that the volunteers had different backgrounds and varying mountaineering experience. Interviews were conducted between 20 December 2011 and 29 January 2012.

The researcher had initially intended on conducting focus groups with Intermediates, as opposed to interviews. However, this was not possible due to a lack of availability of participants who could be coordinated to meet at the same time. Instead, it was decided that one-on-one interviews would be conducted and this would be more beneficial to the researcher’s understanding of the subjective experience. The interviews were conducted with self-identifying intermediate mountaineers, three of whom are members of the ACC RMS, based in Canmore, AB. The other two Intermediates were selected using the snowball method, in an attempt to collect more well-rounded data. All of the data collected during the Intermediate interviews was accepted as valid as there appeared to be congruence between the actual skill level of the

participants, their mountaineering and expedition history, and the skill level at which they self-identified. One participant acted as both a KI, (due to her professional association as a PC employee), and as a focal group participant (she initially identified as an intermediate mountaineer through the ACC recruitment). As all questions from both the professional/expert and Intermediate interview guides were asked of her in a two-phase interview, this accounted for two separate interviews. Table 4.2 presents a list of Intermediate Mountaineer interview participants.

Table 4.2 Key Informant Interview Participants: Intermediate Mountaineers

Intermediate Mountaineer	Interview Location	Participant Affiliation	Background and Experience
Miles Tindal	Canmore, AB	ACC RMS	• British • Mountaineering, climbing and ski mountaineering experience in European Alps, UK, Nepal and extensive experience across AB and BC
Steve Fedyna	Canmore, AB	ACC RMS Member	• Canadian • Chair of ACC RMS Social Committee • Treasurer of The Association of Bow Valley Rock Climbers (TABVAR) • Mountaineering and climbing experience in European Alps, Australia, Greece, Nepal, Bolivia, Peru and extensive experience across North America
Sandy Walker	Lake Louise, AB	ACC RMS Member	• Canadian • PC Visitor Experience Product Development Officer • Mountaineering, climbing and ski mountaineering experience in Australia, Iceland, Argentina, Japan, Greenland, European Alps, Scotland and extensive experience in AB and BC
Michal Mazacek	Canmore, AB	Snowball – personal contact	• Czech, visiting and working in Canada • Czech Mountaineering Federation member • Mountaineering and ice climbing experience in Czech Republic, European Alps and Dolomites, Canadian Rockies, Slovakia
Travis McPhee	Calgary, AB	Snowball – personal contact	• Canadian • Recovering from recent climbing accident in Yoho NP • Preparing for an attempt on Everest • Mountaineering, climbing and ice climbing experience in AB and BC

4.2 Data Analysis

The researcher transcribed the interviews from the digital audio recordings. The documents were printed, totaling over 400 pages. The data analysis was conducted in a series of steps – a manual, content analysis leading to a gradual distillation of themes from the interview

transcripts. First, manual data mining from the printed copies was performed to extract major themes and participant answers were compiled by questions common to each interview. Specifically, details regarding the optimal experience for mountaineers and their response to park management actions were highlighted. Participant responses to questions not common to all interviews, but still deemed important because of the informant's in-depth knowledge of the topic, were highlighted as well (i.e. Scott is a mountain historian and thus, was asked about the history of mountaineering in the Rockies – a question not asked of all the KIs). These essential questions, responses and major themes were compiled in 'interview analysis tables', one for each interview. An example of these tables is provided in Appendix 3. Analysis was then performed on these tables using the evaluative framework, *The 7Cs of the Mountaineering Experience*, and recorded in the tables. The researcher attributed an applicable C (and its component) to the comment or response being analyzed. Then, if the informant had discussed what had facilitated or detracted from the C, it was noted in the next column. The following column detailed the informant's description of their levels of acceptance of the management action. In the final column, a recommendation was made by the researcher on how to best provide for the critical factor of the experience being discussed based on academic literature and on the participant's recommendation. If multiple experiential elements were mentioned in one comment, multiple Cs were attributed to the comment and multiple recommendations were thus made.

The initial intention of the researcher had been to use content analysis software, such as NVIVO, to conduct the analysis. However, it was decided that the process of manual data analysis would better support the phenomenological approach and provide the researcher with a greater understanding of the subjective experience sought by the participants; specifically, a comprehension of the intricacies of their expectations and the contradictory attitudes they displayed.

I was aware of the tendency to ignore information that conflicts with hypotheses (Robson, 2011), and was cognizant to avoid this by being open to adapting the original hypothesis. Kumar (1989) describes another inclination of qualitative researchers to conduct analysis with an elite bias – the assignment of greater value to comments made by officials. I wanted to ensure that comments from the professional/expert group did not overpower the Intermediates' comments. I was conscious to avoid this bias and endeavored to do so by affirming that the Intermediates were ultimately the focal user group for this research and that

recommendations would be designed for the improvement of their experience alone. It just so happened that the majority of Intermediates interviewed had different mountaineering knowledge and skill sets than the professionals and experts thus making their testimonies possibly even more relevant to the experiential data.

4.2.1 Assessment of Study Sites' Provision of the Mountaineering Experience

In order to determine the ability of each study site to provide for the optimal experience, the data that examined the current conditions and management for each site in the 'interview analysis tables' was compiled into one table for each site (Tables 5.2, 5.3, 5.4). Based on the participants comments, a + (facilitating) or – (detracting) value was assigned to specific management actions (or the lack thereof) in each of the study sites according to the 7Cs. The sites were then judged on the overall amount of + and – values they had earned. They were also judged on their ability to provide for the top five most often mentioned components of the 7Cs.

Recommendations for the facilitation of the mountaineering experience in the Mountain Parks were considered and developed through the process explained above. First, the KI's recommendations for the provision of the optimal mountaineering experience were compared to those discussed in the academic literature and to management actions already adopted by PC. Then, based on the frequency of mention of management actions, and their importance to the KIs, recommendations were restructured. Recommendations were finalized based on how the participants said their experience was altered by the current environmental, social and managerial conditions at each study site, taking into consideration the historical and geographic contexts of each site.

Chapter 5 Results

5.1 The 7Cs of the Mountaineering Experience

The following seven sections summarize the results of each participant group's collective response to the 7Cs. In order to compile, present and simplify the massive quantity of qualitative data that was collected, Figures 9-15 show the general trends reported by each participant group with respect to each of the 7Cs. As the focal group, Intermediate Mountaineers are represented at the top of each figure. Outlying data, or comments that clearly did not correspond with those of other participants were included in the figures to show dissonance. Comments that would ultimately alter the 7Cs were included, along with those that were aligned with the initial model. Components of the 7Cs that were specifically referred to by the KIs are indicated in italics.

5.1.1 Challenge

I love climbing. I really enjoy it...but there is that other thing, that challenge and being able to get to the top of the mountain to say, "Wow, I'm at the top. I got here myself." It's such a good feeling (McPhee, 2012).

Figure 9 summarizes the main points that were revealed by each of the participant groups with respect to *Challenge*. The motivational components of *Challenge* that were frequently observed in the data from the Intermediates, SMEs, Mountain Guides and Interest Groups included: *sense of accomplishment, mental and physical challenge, technical difficulty, adventure, exploration and achievement*. Only the Intermediates discussed *hardship, difficulty and deprivation*, although infrequently. They were explicit in their descriptions of the challenges they faced while climbing and the resultant reasons for their increased desire to participate in the sport. SMEs, Mountain Guides and Interest Groups all recognized that they play a role in helping intermediate mountaineers discover the pleasures of this essential experiential element. Each group noted the interdependent relationships existing between themselves and each other and that collaboration is essential to the promotion of *Challenge*. Mountain Guides and Interest Groups' opinions on specific management actions that affect *Challenge* were aligned; they recommended several specific actions that could be employed by managers to enhance the *Challenge* experience and outlined others that detract from it. None of the Parks Management participants, by contrast, discussed this factor with the exception of noting that it is an important element of the mountaineering experience. Interest Groups and SMEs noted that, due to the remote nature of

many peaks and the absence of significant human interventions in the landscape, the Mountain Parks provide an excellent setting to host the challenges desired by mountaineers.

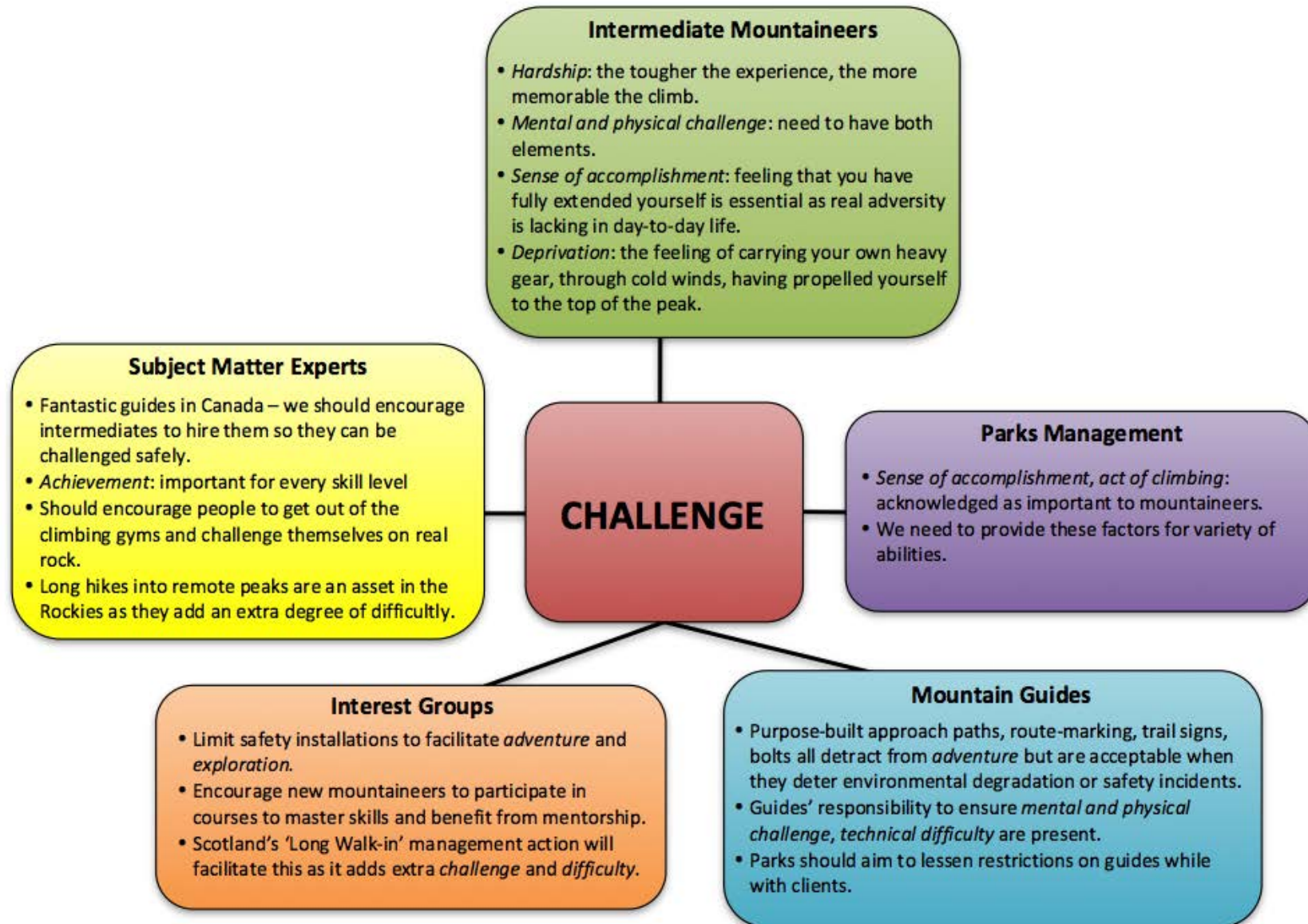


Figure 9. Key Informant Concepts: *Challenge*

5.1.2 Control

You are out there, trying to be in a place that is different from normal, where you are not connected to the rest of society. You are just living by your wits... I think, for a lot of mountaineers, that is important - to be out there and not have anything but good gear, the best of your knowledge, and you work with that (Price, 2011).

Figure 10 summarizes the main points that were revealed by each of the participant groups with respect to *Control*. The motivational components of *Control* that were discussed by the majority of the interview participants included: *extreme focus, lack of rules and restrictions, self-reliance, serious commitment, sense of control, flow, risk, independence, self-sufficiency, and vulnerability*. *Control* was, without question, one of the most often and hotly discussed factors. Due to the nature of their responsibilities as a regulatory agency, PC interview participants discussed this factor with great verve. There appeared, however, to be discord between some PC staff regarding its relative importance. For example, PC VS staff and the Mountain Risk Specialist stated that in order to give mountaineers the control they desire, PC needs to provide them with as much safety and condition information as possible, in tandem with rationale for particular management actions and restrictions. This is currently accessible through online resources but a recommendation was made that the VS team should have a more immediate public profile through face-to-face interaction. PC VE staff, on the other hand, indicated that there is a general reluctance among parks visitors to attend information sessions where they might ask questions, state their concerns and get involved with PC staff in any way. Finally, PC Backcountry Product Specialists stated that there are virtually no management actions that do in fact directly affect mountaineers.

The CNPA staff approach *Control* from an entirely different perspective, managing their lands with a principle of ‘Responsible Use’ (i.e., restricting very few activities officially, but recommending and suggesting certain practices are in the best interest of the Park). This, they believe, restores the *Control* to the hands of the mountaineers and other recreational users. The principle of ‘Responsible Use’ will be discussed later in this chapter.

Mountain Guides and Interest Groups noted that rules and regulations that lead the mountaineer to adjust his plans on when, where and with whom to climb, (including party-size restrictions), stifle the core of this factor. However, “breaking the plan is the fabric of mountaineering” (Nelhams, 2011). The ACC KI in particular, did not appreciate the PC party-size restrictions and felt her need for *Control* was being ignored. The party-size restriction exists

in several areas of grizzly bear habitat in the Mountain Parks. It requires that climbers, hikers and other visitors have four to six people in their parties in order to avoid potentially dangerous conflicts with bears and to protect bear habitat. Fines for non-compliance are actively enforced by law enforcement wardens. Instead of focusing on specific regulations and compliance rates, the MCofS emphasized their role as advocates for *Control* and stressed that they worked directly with the CNPA to ensure that mountaineers feel fulfilled. They stated that they understand that their role is also to communicate the CNPA's rules to their members to avoid non-compliance.

The SMEs, both from Scotland and the Canadian Rockies, agreed that they appreciated proactive communication from park wardens. Mountain Guides, on the other hand, indicated that they prefer to be left to their own devices and not be in contact with wardens during their excursions. SMEs identified the importance of communicating park rules and regulations at the beginning of the planning stages of a trip as it aids in comprehension and compliance. PC staff were confident that adequate communication procedures are in place.

Finally, Intermediates seemed to be satisfied with the level of *Control* that they experience in the Mountain Parks. Some regulations, such as voluntary closures and temporary area closures, were seen as preferable to stricter policies such as outright area closures. The satisfaction derived from being able to take serious risks and remain focused on the task at hand was discussed at length. Elements of the *flow* experience were said to be essential to the experience:

There is something enormously satisfying about things coming together out of the blue...the right people, the right conditions, the right objective...you just say, "yeah, we could do that!" It all flows together (Tindal, 2011).

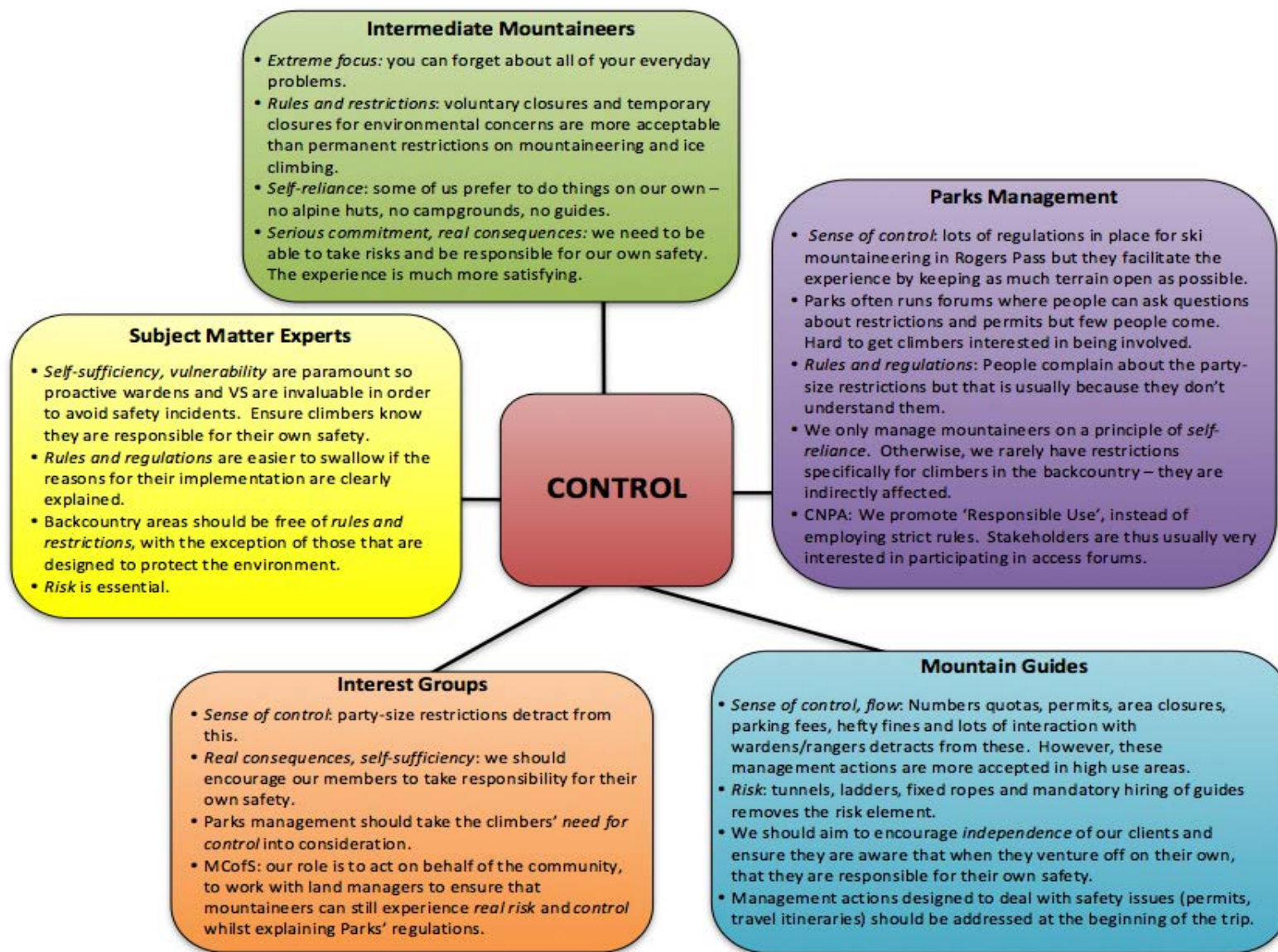


Figure 10. Key Informant Concepts: *Control*

5.1.3 Community

You learned a tradition, you learned a way of doing things, you learned skills and you learned respect for the environment and for the dangers. You learned a certain philosophical [approach] to modesty, understatement and self-reliance. It was very much a sub-culture and you were part of a family – the climbing family (Scott, 2011).

Figure 11 summarizes the main points that were revealed by each of the participant groups with respect to *Community*. The motivational components of this factor that were discussed by the interview participants included: *camaraderie*, *sharing*, *interaction*, *teamwork*, *tick lists*, *elevation gain* and *recognition*. Although the components of *Control* were the most hotly and passionately discussed, the above-noted components of *Community* were discussed with confidence and enthusiasm by most (i.e. everyone agreed that this was key to why they practiced mountaineering and none gave cause to dispute). All of the participant groups discussed the significance of the “fellowship of the rope” (Scott, 2011); the difference between mountaineering and most other recreational pursuits is found in the rope that ties each mountaineer to the other. All of the participant groups also recognized the importance of mentorship in mountaineering: it fosters *camaraderie* and/or a *sense of community* but stands to be lost through ongoing changes in the sport, which will be discussed further on.

Mountain Guides, Intermediate Mountaineers, and SMEs acknowledged the importance of congregation sites for mountaineers, such as alpine huts and information centres, which foster a *sense of community*. Of all the Parks Management participants, only the PC Mountain Risk Specialist mentioned this as having a major impact on the experience. He discussed the aspects of tightly knit mountaineering communities bonding with the ‘hub’ they are serviced by. For example, the smaller the access point to the climbs (e.g., small town like Chamonix, FR or Banff, AB), the more climbers are funneled to congregate in ‘hubs’ like guides’ offices and/or climbing gear shops, allowing them to connect with one another. One Mountain Guide described the feeling of being part of the group, or in the climbing hub, as “exciting” (Nelhams, 2011). I can attest to these positive feelings, as I experienced them while climbing in Chamonix, FR. The Intermediates overwhelmingly agreed that the opportunity to interact with other like-minded climbers, to share their climbing stories and ‘tall tales’ of adventures and risk, is essential. All of the Intermediates agreed to loving the alpine hut systems in both Europe and Canada. A few of them noted that the extent to which an alpine hut is outfitted with food and bedding, etc., has a major impact on their experience and the degree to which they relate to other mountaineers.

Most admitted to enjoying the well-developed European hut systems, but agreed that they have no place in the Mountain Parks where a more rustic, less-developed hut system promotes the congregation of like-minded climbers. The only Intermediate Mountaineer who disagreed with this statement was of Eastern-European descent. He admitted to being more accustomed to an outfitted hut system.

There was a noted discrepancy in the Mountain Guide and Intermediate Mountaineer's desire to disconnect from the world and the PC response to this notion. While the mountaineers mentioned wanting to disconnect particularly from technology, to spend time with climbing partners and discuss their exploits, the PC Facilities Analyst saw the situation differently. She stated that visitors prefer to stay connected through cell phones, Facebook and email, which is why the backcountry seems to be less and less attractive to mountaineers and other recreationists. Although this comment did not correspond with the other KI's sentiments, Manning (2011) states that recent declining use in national parks may be the result of "fundamental shifts in society toward more sedentary interests such as electronic media" (p. 57).

Mountain Guides, CNPA staff, Interest Groups and SMEs were united in their thoughts on the collaboration necessary to encourage a community feeling amongst mountaineers. Each groups speculated that if they were to work together with a common vision to educate mountaineers on best practices and community development within the sport, they would be much more effective within their respective domains. SMEs also speculated that by approaching Parks Management together, they might offer managers a greater understanding of what is important to them as a community. Mountain Guides and Interest groups, specifically, realized that it is their responsibility to help in this effort, to advocate for their clients and club members. Scott stated that the various interest groups within the mountaineering community in the Rockies work well together and understand each others' mandates:

In all my travels, I have never found another alpine area that has such a pleasant and close-knit community as the climbing community from Calgary to Revelstoke. Everyone works together really well out here: the ACC, Parks Canada, the guides' association, the business community, CP Hotels, The Banff Centre, the Town of Banff (Scott, 2011).

There was one dissenting voice from the ACC representative. She felt that PC was not working as part of the mountaineering community, but instead against it by attempting to thwart efforts to foster a collaborative mentality. PC management recognized that the more time spent educating climbers as a group, the more willing they might be to work with parks management

rather than against them. The CNPA and the MCofS expressed the best collaborative attitudes. The CNPA said that their promotion of 'Responsible Use' in Scotland has encouraged interest groups like the MCofS and local mountain guides to contribute to the establishment of ethical practices for all mountaineers. The MCofS echoed this sentiment.

Intermediate Mountaineers acknowledged several specific PC management regulations that directly impact the *Community* factor. The management action that was most frequently recognized as detracting from *Community* was the party-size restrictions in certain areas of grizzly bear habitat. The following opinion was universal: rarely would mountaineers enjoy climbing a route with four or more comrades; that aside from the safety concern, climbing with four or more people decreases the degree to which intimate camaraderie is developed.

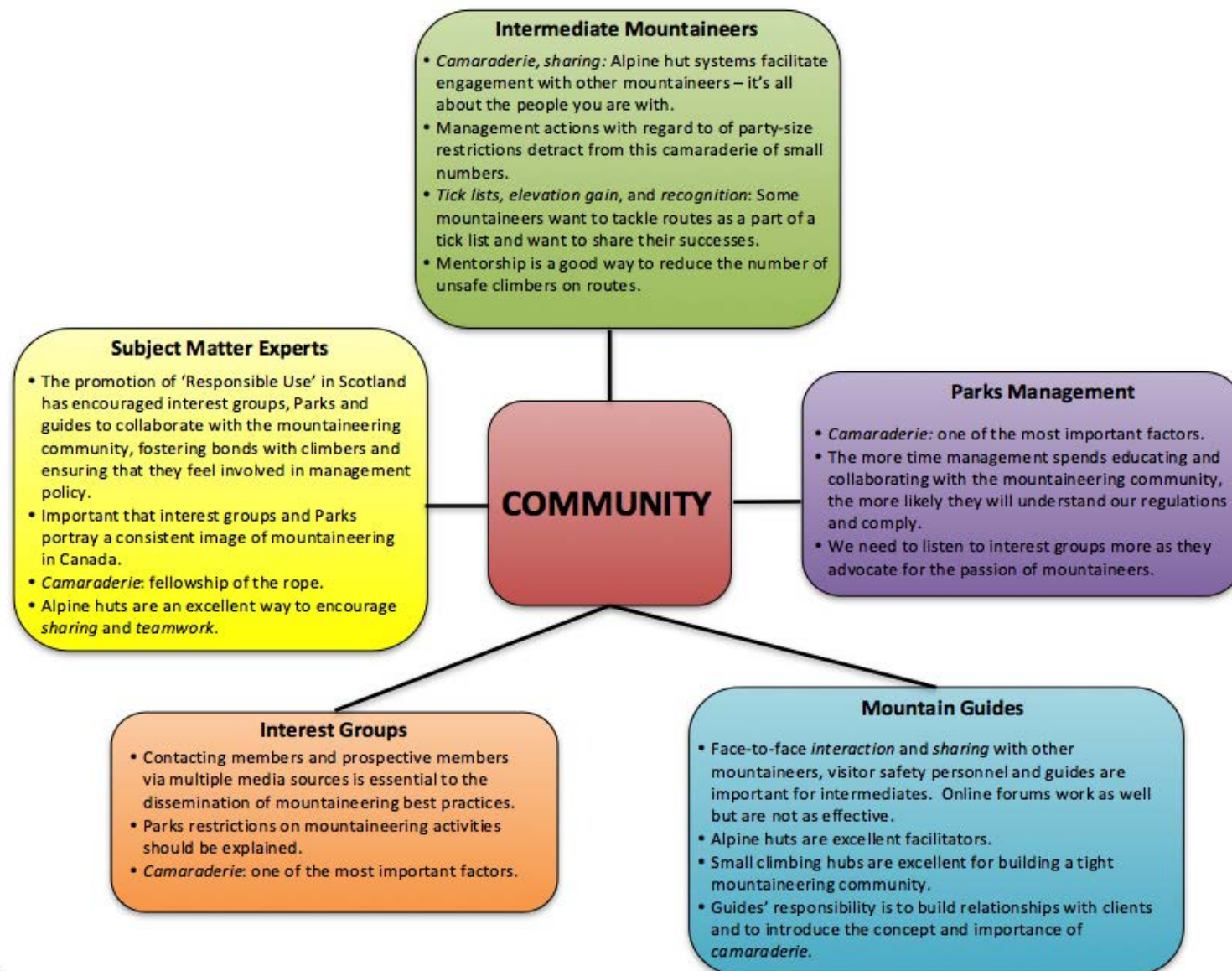


Figure 11. Key Informant Concepts: *Community*

5.1.4 Context

I don't like the thought of our parks becoming amusement parks, like the Alps. I respect that Parks Canada has done a good job of preventing the overrun of Banff National Park. They have ensured the wilderness experience (Rees, 2011).

Figure 12 summarizes the main points that were revealed by each of the participant groups with respect to *Context*. The motivational components of this factor that were discussed by the interview participants included: *wilderness experience*, *scenery*, *engaging with the landscape*, *variety*, *concern for the environment* and *remoteness*. This factor was widely discussed by all of the interview groups. Most agreed that the *wilderness experience* component was essential to this factor, and to the overall mountaineering experience. Of all the components of the 7Cs, Intermediate Mountaineers mentioned this one the most often.

It is clear in Figure 12 that Parks Management gave the greatest consideration to this factor. Specifically, PC participants were united in their desire for visitors to connect with the landscape, and access to a wilderness experience. However, there was discord on the issue of where management should focus their efforts in providing this wilderness experience – the frontcountry or the backcountry. The PC Backcountry Product Specialist strongly endorsed the promotion of backcountry areas to mountaineers and other visitors, to satisfy demands for remote, wilderness experiences. The PC Facilities Analyst said that she did not believe there was sufficient demand for the backcountry experience to warrant the focus of management resources. The PC VEPDO, a mountaineer herself, noted that the wilderness experience is more powerful in the remote, backcountry areas where the connection to the landscape is more dramatic, and the variety of climbing opportunities is much greater. However, despite her personal opinion that there is indeed demand for this type of experience, she conceded that from a PC perspective, mountaineers are not considered the “low-lying fruit” (Walker, 2012a) and are, thus, not within the Agency's focus. Finally, the PC Mountain Risk Specialist and VS Manager agreed that a variety of routes and challenges are essential to keep mountaineers coming back.

Mountain Guides, SMEs and Interest Groups made many references to mountaineers' dislike for rules and regulations with the caveat that if management actions are designed to protect the environment, then they are deemed acceptable by climbers. The degree of importance that the Intermediates' concern for the environment appears to have taken in

response to this set of questions contradicts much of what was said previously about the experience being their first and foremost concern.

Like the PC VS staff, Mountain Guides insisted that *variety* is necessary to keep their clients excited about mountaineering. Additionally, they mentioned that *variety* supersedes the need for *solitude* in high use areas. They appeared to be very concerned with the environmental footprint of alpine huts and teaching their clients about human connections to the landscape.

The Intermediates recognized that beautiful scenery and stunning views were necessary to motivate them to climb challenging peaks. And, to satisfy their requirements of a wilderness experience, most respondents said that installations, infrastructure, and signage should be limited in the backcountry. They did, however, agree that some management actions to limit crowding, human waste and garbage were appreciated, to ensure that the landscape is left in its natural state and not used merely as a climbing gymnasium. The issue of placing bolts was touched on briefly and most respondents agreed that it is an acceptable practice and does not interfere with the wilderness experience.

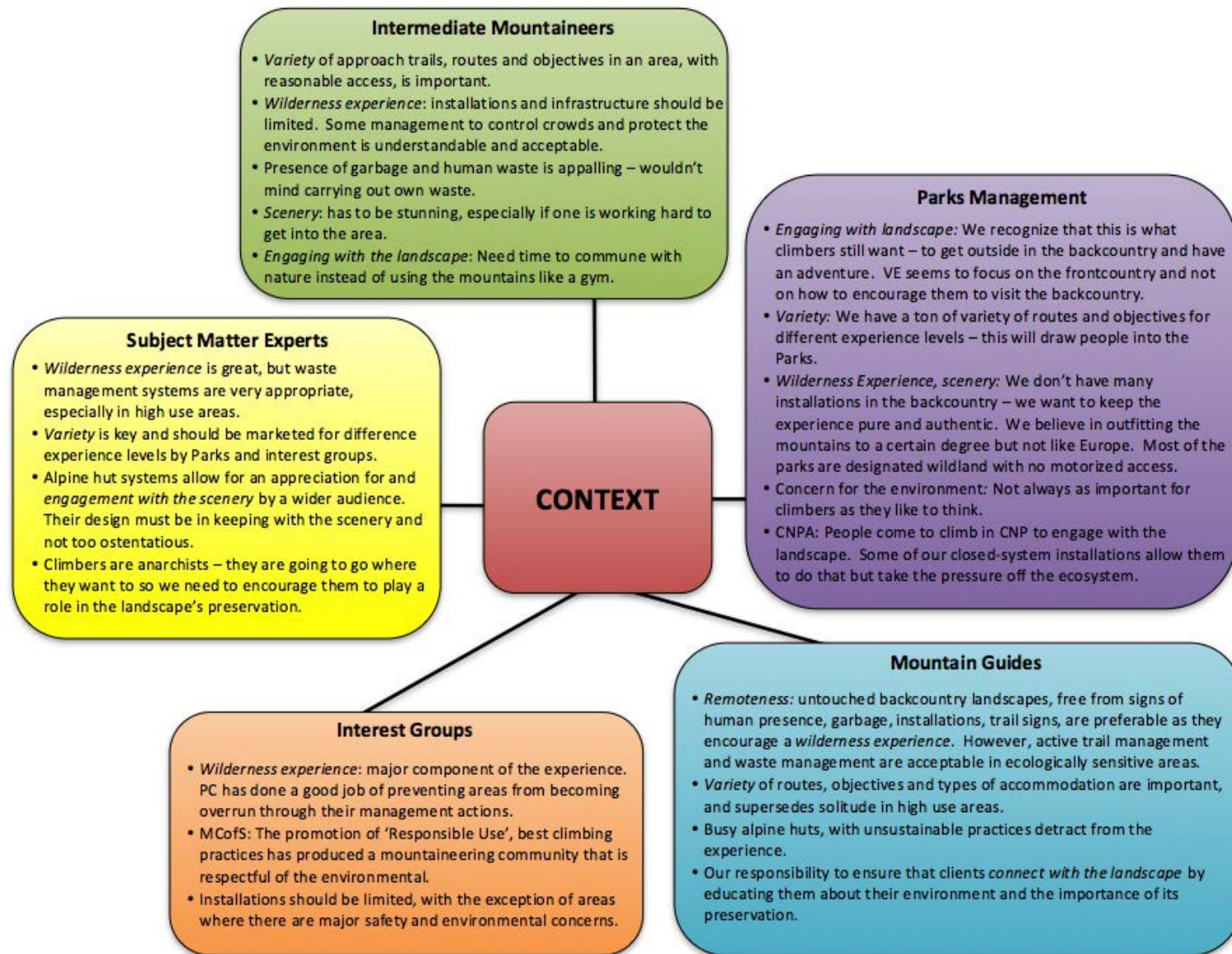


Figure 12. Key Informant Concepts: *Context*

5.1.5 Creative Opportunities

You've got to get kitted up, you've got to check the weather, you've got to find your way...do you put your crampons on right away? You've got to make all these decisions. And that is what it is all about (Nelhams, 2011).

Figure 13 summarizes the main points that were revealed by each of the participant groups with respect to *Creative Opportunities*. The components that were most often mentioned include: *decision-making, problem solving, learning process, discovery, exploration, access to information and historical connection*.

Parks Management had much to say about this factor, specifically the *decision-making* component. To them, *decision-making* appears to be the most important of the *Creative Opportunities* and most cited that its facilitation their priority in attempting to keep mountaineers captivated. Expanding learning opportunities for mountaineers by providing them with information related to weather and avalanche conditions, climbing route details and safety considerations (also referred to by interview participants as 'beta'), allows climbers to make informed decisions. SMEs and Mountain Guides stood in strong agreement on this issue. They each take responsibility for sharing information about conditions and restrictions so that climbers can make their own, informed decisions. PC managers believed that they impose few restrictions but those that might curtail *Creative Opportunities* need to be explained to visitors. Other groups, including the Intermediates, agreed that PC is doing a good job of encouraging climbers to make their own decisions by providing incredible 'beta'. Examples cited as being helpful resources include the new PC Public Avalanche Information reporting system and the Rogers Pass Winter Permit System for ski mountaineering.

Only one PC staff mentioned the importance of an *historical connection* to the landscape; how it can capture the imagination of climbers and enhance creativity. The SMEs and Mountain Guides, however, recognized this as a significant factor. They indicated that they want their fellow climbers/clients to be aware of the history of mountaineering in certain ranges, the mountaineering idols who attempted and succeeded on routes years before them, and how an understanding of this history can enrich their own mountaineering experiences.

Intermediate Mountaineers and Mountain Guides agreed that *problem solving* and *decision-making* were the major components of their *Creative Opportunities*. They mentioned that *discovery* and *exploration* are also important – components that were not often discussed by

other participants. They made the resounding statement that the experience is most interesting and prompts creativity when climbing is tough and not exactly as anticipated. Other components, such as *curiosity*, *passion* and *stimulation* were mentioned less frequently than they were in the narrative literature review.

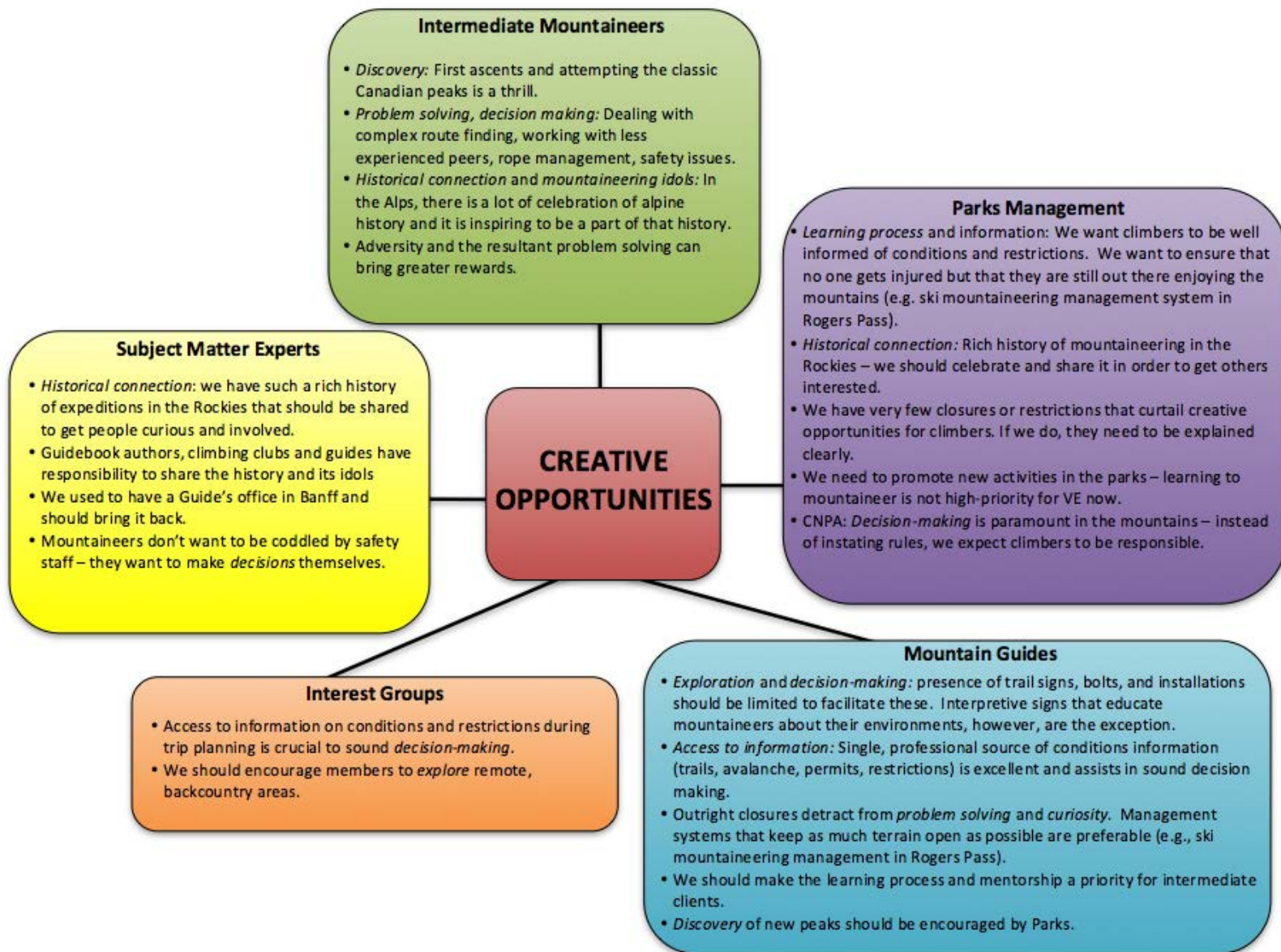


Figure 13. Key Informant Concepts: *Creative Opportunities*

5.1.6 Catharsis

The thing I like so much about mountaineering is the total escape from your day-to-day life (Walker, 2012a).

Figure 14 summarizes the main points that were revealed by each of the participant groups with respect to *Catharsis*. The components that were most often mentioned include: *solitude*, *escape*, *liberty*, *freedom*, and *simplification*.

Solitude is of utmost importance. It would appear that it was the most important component cited in the entire study, not only because of the number of times it was mentioned but also because of its significance to the participants. Every participant group expressed the importance of *solitude*, saying that it, and therefore *Catharsis*, take priority over other Cs including *Challenge* and *Creative Opportunities*. Mountain Guides, SMEs and Intermediates indicated that management actions that impinge on other Cs but facilitate *solitude* are well accepted. Mountain Guides and Intermediate Mountaineers discussed the far-reaching implications of *solitude* – that this is about more than just being alone. Further, *solitude* was discussed in terms of safety and environmental impacts. Crowded routes, for example, represent objective safety issues for mountaineers and can have significant impact on the landscape due to erosion of approach trails. *Solitude* would alleviate those concerns. Mountain Guides proposed management actions that could be taken to remedy these issues while also preserving *solitude*, such as permitting mountaineers with a specific level of experience to access particularly challenging routes, as is the case in Kluane NP, YT and Denali NP, AK. The Guides indicated that they had a responsibility to introduce their clients to other, less populated routes and ranges in order to facilitate *solitude*.

PC staff said that they realize this is an important factor for mountaineers and they believe they have few restrictions in place to detract from it. Their response to negative comments about party-size restrictions detracting from *solitude* was that ecological integrity remains their priority, and that there are plenty of other isolated climbing areas in the Rockies. The ACC staff mentioned that access to these secluded areas is essential to achieve a feeling of *freedom* and *solitude* but that they would like helicopter access to reach them, which is not permitted by PC.

Whereas most of the other participant groups mentioned *solitude* as their primary concern in this factor, the Intermediates also thought that *freedom* from rules and regulations in the backcountry and *escape* from the confines of day-to-day life are key components of *Catharsis*.

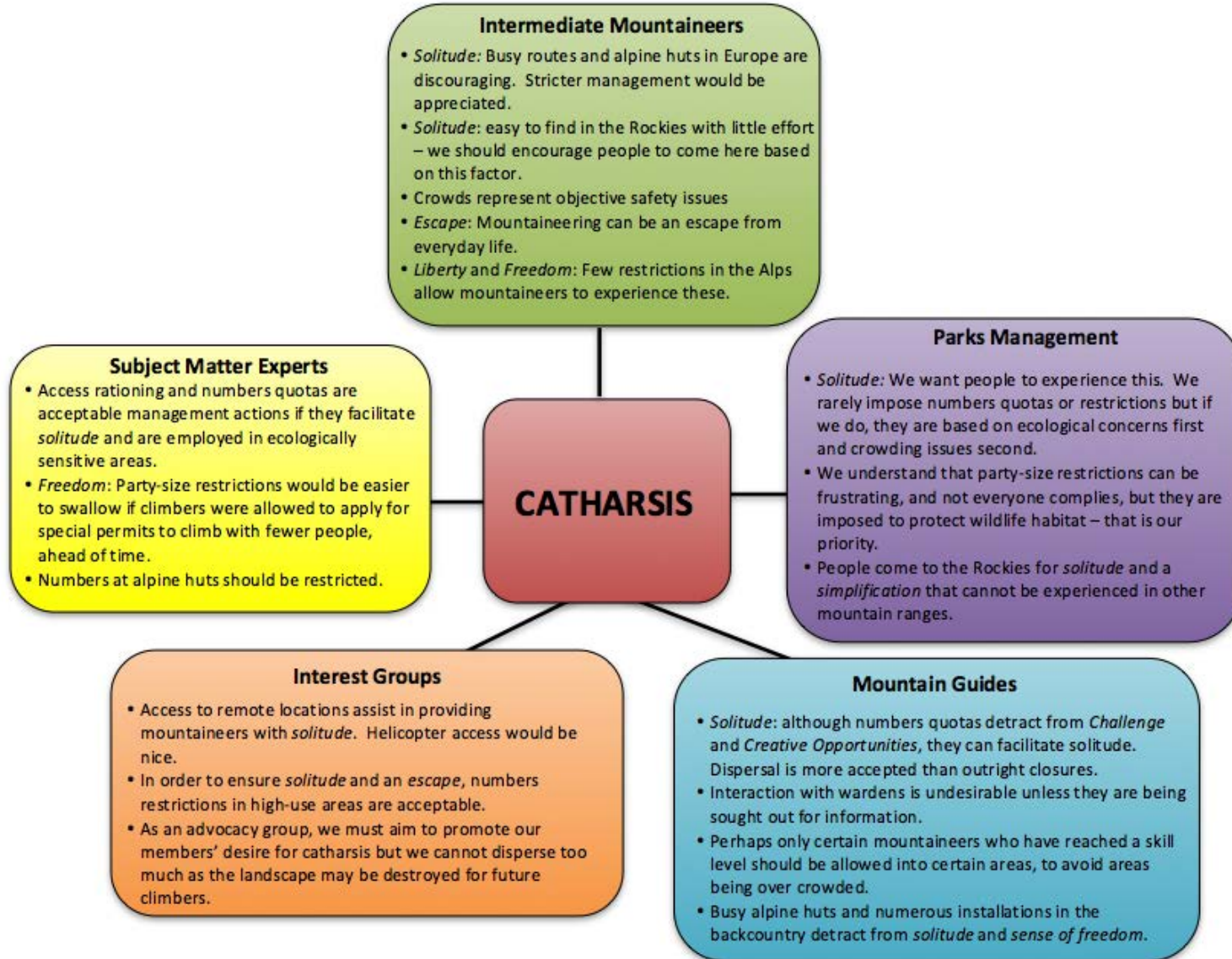


Figure 14. Key Informant Concepts: *Catharsis*

5.1.7 Chrysalis

I look at the mountain, the aesthetics, the symmetry, the face, the beauty and how it feels. The whole thing just grabs me – it's all about an emotional connection for me (Statham, 2011).

Figure 15 summarizes the main points that were revealed by each of the participant groups with respect to *Chrysalis*. The components that were most often mentioned include: *spiritual/emotional connection, sense of identification, inspiring confidence, self-discovery, therapeutic, and truly living*. Overall, this factor was the least often discussed and its components were mentioned by varying degrees by participant groups. It was, however, noted as the most intimate of the Cs and thus, the hardest to describe.

Although PC staff recognized that *Catharsis* is an element of the mountaineering experience and that the mandate of the VE department is to ensure visitors feel a deeper connection to the park, most of the staff described the need to manage for visitor safety and resource conservation before tackling the “softer issues” (Ledwidge, 2011) of emotional connections.

Mountain Guides mentioned that *a sense of identification* was critical to both *Community* and *Chrysalis*. Their clients need to achieve this in the presence of other climbers in order to learn more about themselves and their capabilities. They also mentioned that they, as guides, could be instrumental in facilitating this self-actualization.

Interest Groups expressed their roles in introducing their members to the ‘full mountaineering experience’ (Morning, 2011), meaning that climbers can experience a deeper connection to themselves and their environment and landscape. SMEs mention that mountaineering provides a way to *truly live*, while Intermediate Mountaineers commented that it is *therapeutic, inspires confidence* and provides chances for *self-discovery*, and thus offering life a greater perspective. They acknowledged that these elements are key to keeping their passion for the sport alive.

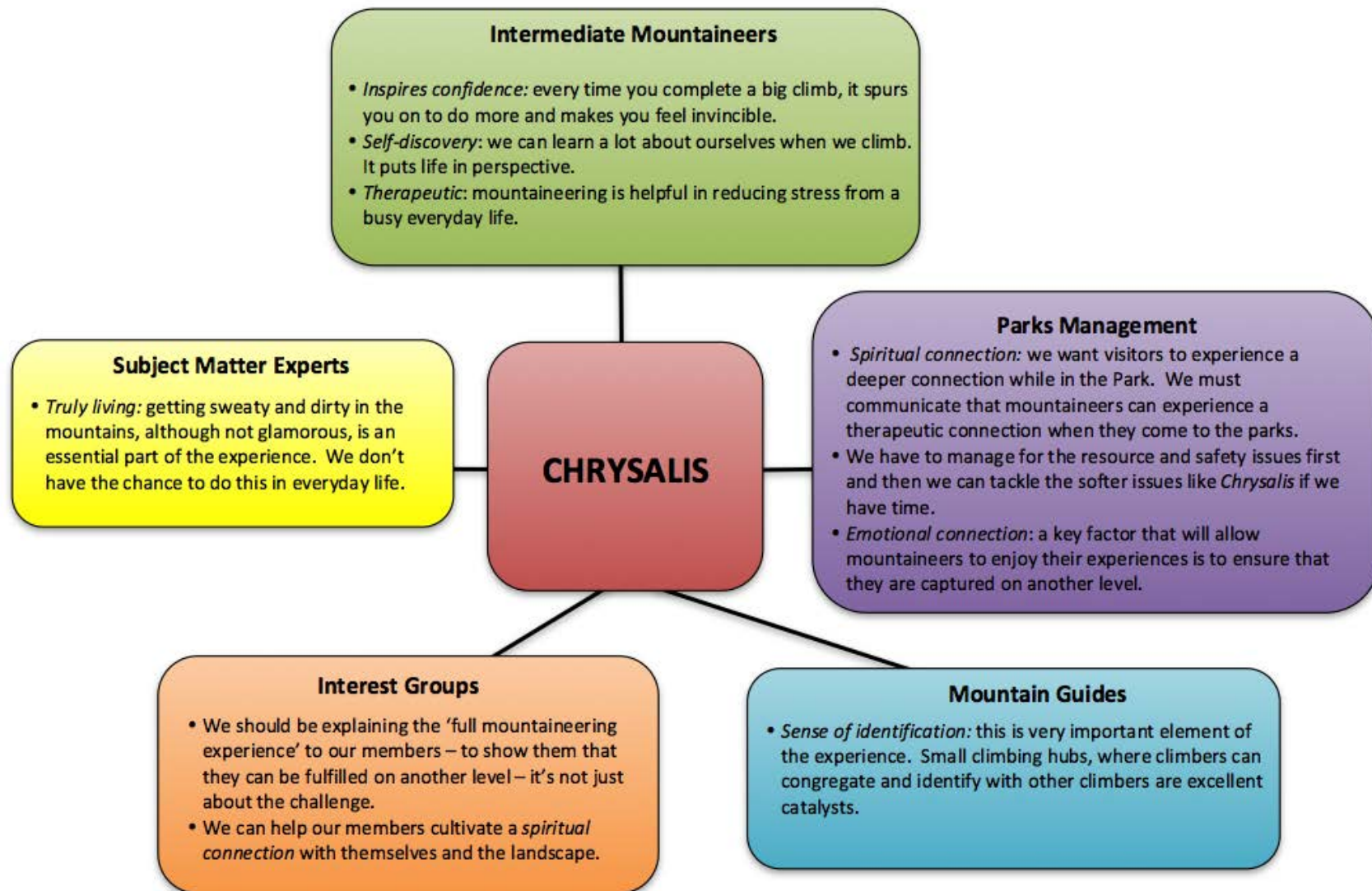


Figure 15. Key Informant Concepts: *Chrysalis*

5.2 Additional Considerations

Many other considerations were brought up during the interview process that did not relate directly to the motivational factors that define the mountaineering experience. Instead, they have been classified as ‘Additional Considerations’ that could have an impact on park management and mountaineers’ perception of that management.

5.2.1 Changes in Mountaineering Techniques, Culture and Ethos

I feel the frontier of climbing is no longer technical or geographical but ethical. This is what climbing should be about: using the tradition, ethos, and passion of our sport to arouse greater response within ourselves, echoes of what we would like to be (Simpson, 2003, p. 222).

Although largely beyond the scope of this project, several of the KIs discussed the changes in the sport of mountaineering and the resultant changes in parks management techniques and motivations and expectations of mountaineers. They discussed the particularities of the climbing community, the catalyst that changed management techniques, the apparent change in the perception of risk and ethical conduct and finally, the changes we might expect in the future.

Scott grew up in the Calgary, Canmore and Banff climbing communities. He became a honorary Mountain Guide and worked with the International School of Mountaineering (ISM), guiding and instructing in the United Kingdom and across the European Alps. When asked to describe the mountaineering community of his youth, Scott said that he had been taught that climbing had three essential components:

Nature was one of them – the sport actually took place on real rock in the fresh air. Hard work, danger and physical risk [were next]. And the third component is what I call the fellowship of the rope. Because of the hardship and the danger shared, you made a very strong bond with your companion (Scott, 2011).

However, these elements, which stood as pillars of sport since it’s inception, changed drastically in the 1980s with the inception of sport climbing and what Scott called the “commercialism of climbing” (Scott, 2011). Specialty climbing magazines, athlete sponsorships and aggressive media advertising featuring climbers, in tandem with the advent of indoor climbing gyms “opened up climbing to the masses” (Scott, 2011). Although a good initiation to a new sport, Scott felt that the climbing gym has removed the elements of danger and risk, by nature of its isolation from the original outdoor sport.

When I learned to climb climbing was a blood sport. It meant that you could die doing it...you really learned to respect the danger. You didn't learn to climb in a gym or with bolts...We only had a few pitons, we had the ropes tied around our waists, we had full shank boots and we just didn't fall off! We were certainly cautious with everything that we did. We knew that nobody was going to find us, should something have gone wrong. They would find the ravens circling our bodies, eventually (Chic Scott, 2011).

He stated that the pillars of climbing (e.g., nature, danger, risk and camaraderie) are eliminated when commercial industry interferes.

If the danger is taken out of the sport, everybody can do it and that brings in commercial interest, that brings in heroes and sponsorship and it just creates a whole new environment. It then becomes about how you can market the experience instead of the experience itself...With the commercialism of the sport comes a whole reversion, a whole denial of the long tradition of modesty and understatement and humility that has been a very strong characteristic of climbing (Chic Scott, 2011).

Scott's view of the sport becoming more mainstream was echoed by both Marc Ledwidge, PC Manager of VS for Banff, Yoho, and Kootenay NPs and Lynn Martel, mountain author, climber and journalist. "Sport climbing is increasing. Climbing routes are way busier than 10 to 20 years ago" (Ledwidge, 2011). Both believed that mountaineering and climbing guidebooks, as well as an abundance of online information, have contributed to this increase. Ledwidge noted that changes in recreation in the Parks have been driven by demographic changes in Canadian population, specifically an influx of new Canadians. Compared to the types of adventures that visitors desired years ago, he stated:

We're aware that [visitors] want to do different things for fun. Parks is trying to figure out what those people want (Ledwidge, 2011).

Martel's concern with crowded routes and congested summits was that solitude, a key component of her optimal experience, is becoming less assured. She stated that as better access to routes means more people can enjoy the mountains, "you [also] have to work harder and harder to find secluded places" (Martel, 2012).

KIs discussed the changes in the technical aspects of mountaineering, as a result of the commercialization of the sport and transformations in population characteristics. Marg Rees, ACC RMS Chair, believed that the technological development of backcountry infrastructure, climbing gear and communication capabilities have significantly altered the landscape of mountaineering. Backcountry huts and helicopter access have provided greater admission and

increased safety, allowing more people to attempt difficult mountaineering objectives. The evolution of technical climbing gear and the accessibility of radio communications however,

...makes things feel a little less risky. Maybe communications and the availability of rescue helicopters have increased people's propensity to do risky things (Rees, 2011).

As the KIs indicated, these changes have subsequently affected the "softer elements" (Ledwidge, 2011) of mountaineering culture, ethos, mentorship and climbers' perception of risk.

The idea that mountains are very dangerous is being [watered] down a bit. Even if you've got a SPOT device, you get caught in an avalanche, it won't help you unless your companions know how to dig you out...But the danger and risk are still there. If you are half-way up a 2000 foot face, it's still dangerous, even if you have the latest hardware (Scott, 2011).

Echoing Scott's sentiment on the significance of commercial interference, Rees stated that mountain culture has been influenced by what she called the 'Woo-Hoo Factor' (Rees, 2011). She cited films featuring sponsored athletes tackling riskier and more dangerous climbing and ski mountaineering objectives, pushing the limits of human strength and capability, and "making it all look very glamorous" (Rees, 2011), encouraging fans to imitate the daring feats. The Radical Reels Film Tour, presented by The Banff Centre as a part of the Banff Mountain Film and Book Festival, is an annual international presentation of short, action-packed climbing, paddling, mountain biking, skiing, snowboarding adrenaline sport films. Last year, almost half a million people flocked to see the "Rad Reels", clearly indicating a strong interest in these extreme sports (The Banff Centre, 2013).

Rees and Scott both sensed that this fast, new approach to a traditional sport that is steeped in history, with a unique culture, is changing how people join the sport too. They believed that mentorship, once an integral part of the mountaineering experience, is virtually lost.

Surf a website and you're good to go. In the past, you had to know someone to get the beta and find out where to climb. It was a very small community and in a lot of ways, it was quite a clique. You had to prove yourself to get inside that group (Rees, 2011).

Rees went on to say that, in an attempt to retain some of the traditional ways, the ACC advocates mentorship in their club excursions. Martel mentioned that with so many derivatives of the original sport of mountain climbing, mentorship becomes difficult because of the evolving desires of users.

Initially, climbing a mountain was climbing a mountain. When Hans Gmoser got here, he climbed a rock face and no one was doing that in Canada yet. Now, you've got everything...you've got boulderers, sport climbers, [traditional] climbers, mountaineers, alpinists, ice climbers and mixed climbers (Martel, 2012).

It would appear, however, that these phenomena are not confined to the Rockies. These sentiments were reiterated by KIs from the UK and Europe. Mountain Guide and Director of the ISM, Adrian Nelhams, recognized that the desires of his clients have changed:

There are more and more people who want to go up on the first telepherique, then come back down to the valley...People are spending less time in huts. They seem to want the buzz with a bit less adventure. They would rather sit and post their pictures of their climbs on Facebook than sit down and get drunk with a mate and chat about [them] (Nelhams, 2011).

By virtue of the data here, Simpson's sentiments with regard to the ethics of the sport may no longer be applicable. The KIs have suggested that the frontier of climbing has indeed moved away from its original ethos and roots. However, Scott remains hopeful about the future of the traditional mountaineering ethos and culture in the Rockies.

A lot of people still do it the old fashioned way and in fact, most of the people who come to enjoy a true wilderness experience in our National Parks will do it the old fashioned way. Don't confuse what is going on in the magazines with what [some] climbers are doing. It's almost like two different worlds (Scott, 2011).

5.2.2 Geographic, Jurisdictional and Cultural Differences

Canadian mountaineering philosophy is based on 3 principles: 1) Competence from our Swiss and Austrian guide heritage, 2) Modesty, humility...and understatement from [our] British background and 3) We see mountains as wilderness and we our environmental approach is one of preservation and conservation. Canada tends to be eclectic in that way. We take what is good in other cultures and integrate it into our own (Scott, 2011).

The KIs and Intermediates discussed a number of geographic, jurisdictional and cultural differences between the three study sites. This was necessary in order to determine the reasons for developmental differences of mountaineering sites and to discover any benefits in the sites' current management schemes that could be employed elsewhere.

The most cited differences between regions were of a geographic nature; specifically the differences in wilderness and spatial scale. Interview participants in all three sites described the Mountain Parks as a truly natural environment and genuine wilderness, whereas the Alps and the

Cairngorms were recognized as much more developed and lacking wilderness (Mazachek, 2011; Price, 2011; Rees, 2011; Chic Scott, 2011).

There is a completely different approach to mountains in Europe and North America. Here, we think of them as wilderness. There, they consider them a playground. We used to call Chamonix “The Harlot of the Alps” (Scott, 2011).

The higher density of recreational users in the mountains, coupled with the easier access provided by various forms of uplift contribute to an experience that was described as “the opposite of solitude” (Fedyna, 2011). Dr. Martin Price, Perth College Director for the Centre of Mountain Studies, and UNESCO Chair for Sustainable Mountain Development, pointed out the significance of the different spatial scales of the three study sites. Due to the managed nature of the development of European mountain towns over centuries, there are many more access points to the high alpine in the Swiss and French Alps than in the Rockies. This accounts for a more densely developed trail network (Price, 2011). The Alpine Convention, a concept initiated in 1952, is an international treaty between the 8 Alpine countries (Austria, France, Germany, Italy, Liechtenstein, Monaco, Slovenia and Switzerland) intended to promote sustainable development and conservation in alpine areas (Alpine Convention, 2010; Price, 1999). Across these nations, there are 900 separate protected alpine areas (Fig. 16): 13 NPs, 87 Regional/Nature Parks, 288 Nature Reserves, 13 Biosphere Reserves, 4 UNESCO World Natural Heritage sites, 3 Geological Reserves and a variety of specially protected areas. These form the Alpine Network of Protected Areas (ALPARC) (Alpine Network of Protected Areas, 2013). Each European country employs a combination of differing climbing area management techniques, wherein multiple stakeholders are involved including those with potentially competing purposes like conservation associations and climbing clubs. Price suggested that users might struggle to understand the differing rules and regulations in each of these areas. Hanemann (2000) calculates that there are 300,000 climbers in France, 30,000 in Switzerland and a total of 1.6 million climbers across Europe, many of whom travel across the continent to the climb (Hanemann, 2000). Price argued that management in this complex landscape “must be immensely more difficult than in Canada” (Price, 2011).

Most mountain tourism destinations are characterized by an intensively developed nodal centre, usually located along a major transport corridor and surrounded by a frontcountry recreational place, which serves as a gateway to surrounding backcountry areas (Nepal & Chipeniuk, 2005, p. 325).

CNP has experienced inhabitation and industrial development similar to that of the Alps and has also developed a rich, cultural landscape. Whereas most mountaineering sites in the Rockies tend to have one access point off a main road or highway, CNP has a myriad of trailheads and access points. CNP land has been declared a NP but the CNPA does not have the jurisdictional rights to declare what may, and may not, happen in the Park (Potheary, 2011). Instead, this burden is shared with industry, inhabitants and local governments. The arrangement is unlike management in Canada's national parks, although PC does encourage the involvement of stakeholders. Access rights in the UK make management even more difficult as,

...people feel that they have the right to walk wherever they want to. In Britain, it's enshrined in law (Price, 2011).

Price believed that these differences can cause mountaineers to have very dissimilar experiences in the three study sites.

Several of the interview participants mentioned cultural differences that likely affect the mountaineering experience in each study site, such as independence and the guide/client relationship. It was noted that Canadian mountaineers have a penchant for independence during their climbs (Bunyan, 2011; Fedyna, 2011; Martel, 2012; McPhee, 2012; Price, 2011; Chic Scott, 2011; Walker, 2012a). The general impression was that they enjoy camping and hiking into remote areas and do not hire guides as often as they might in the Alps. Nelhams noted that mountaineers from the UK are similar,

Brits are very much go out there, travel and get stuck in but there is a big culture of learning too. They will not necessarily hire a guide for a day of travel, but they will hire guide for a course or to teach them how to do it themselves (Nelhams, 2011).

Rees felt that in Canada, the "guide culture" (Rees, 2011), is not as prevalent as it is in the Alps. She described a story wherein she was ski mountaineering in the Alps without a guide:

European guides were surprised when we were breaking trail without a ski guide. [One] mentioned that his clients would never do that. It seemed foreign to them that we didn't hire a guide (Rees, 2011).

These differences will likely have an affect on management in each area and subsequently, on how mountaineers respond to their experiences (Hollinger, 2011; Nelhams, 2011).

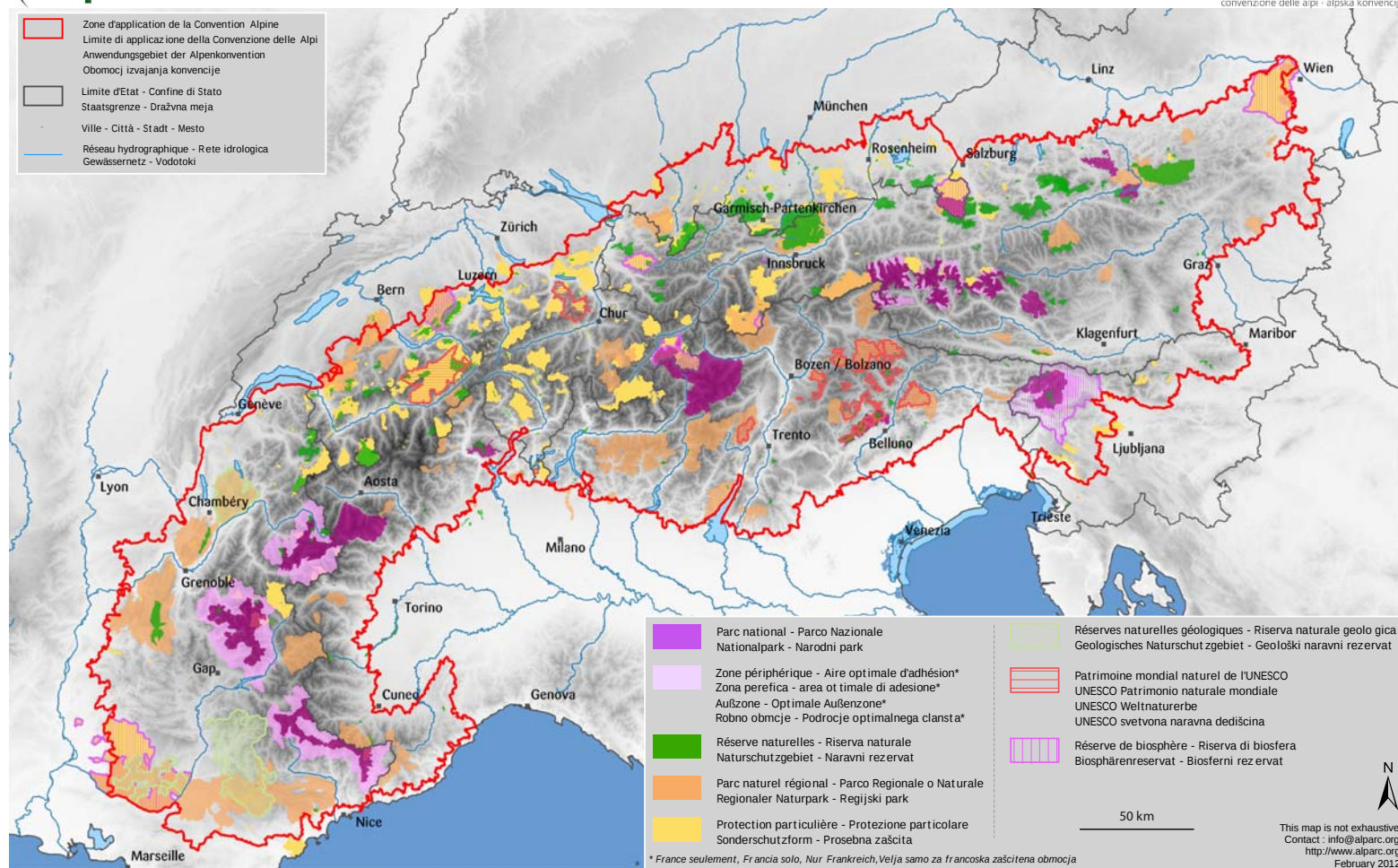


Figure 16. The Alpine Network of Protected Areas (ALPARC)
This shows the variety of protected areas across the Alps. Source: Alpine Network of Protected Areas (2013)

5.3 Current Management and Conditions: The Mountain Parks

The overwhelming consensus from the PC KIs was that management plans for mountaineering recreation, or the mountaineering experience, do not exist in the Mountain Parks (Bunyan, 2011; Dubois, 2011; Ledwidge, 2011; Statham, 2011; Walker, 2012b). As Statham, Mountain Risk Specialist for PC pointed out, there are visitor safety policies that encompass mountaineering but no management actions that are directly aimed at climbers:

We have overriding things about rescue and visitor safety and this is what I work on. We have policy in place with respect to the licensing of mountain guides. We have policy in place on how we manage visitor risk. But anything specific to mountaineering? No (Statham, 2011).

Reg Bunyan, Backcountry VE Manager in Banff NP indicated that there are also resource conservation policies that may indirectly affect mountaineers:

We neither specifically manage nor restrict climbers in any shape or form. We may manage a backcountry area for conservation and safety reasons. For example, let's look at Moraine Lake which has a group [size] restriction – you need to have four people to climb the East Ridge of Mount Temple. Most climbers don't want to do that. The intent is not to manage climbers, but to manage the number of disturbance events in bear habitat and to reduce potential bear-human interactions (Bunyan, 2011).

KIs discussed a number of reasons for the lack of consideration of mountaineers and their experience in the Mountain Parks. The most often stated reason was that as a recreational group, they “are not really on the radar for Parks” (Dubois, 2011). Sandy Walker, VEPDO for the LLYK field unit, stated that mountaineers are not a concern for the VE department because they are a minority group. Instead she referred to the higher number of recreational day-hikers and cross-country skiers as the “low-lying fruit” (Walker, 2012b) for PC. Ledwidge and Statham echoed this sentiment. The few numbers of mountaineers, as well as limited PC staff and resources, account for the minimal attention mountaineers receive in management planning. The focus is on users who will most benefit from PC efforts, “to get the biggest bang for our buck” (Walker, 2012b).

Facilities Analyst for PC, Jennifer Dubois, mentioned that because mountaineers are generally highly skilled and self-sufficient recreationists, there is little that PC can offer them from an infrastructure and facilities perspective (Dubois, 2011). VS and Mountain Risk Specialists saw mountaineers in this light as well – independent, resourceful recreationists who require little managing and who would prefer to be left to their own devices (Ledwidge, 2011;

Statham, 2011). Thus, said Statham, “we manage on a principle of self-reliance” (Statham, 2011), this being one of the best ways for PC managers to optimize the mountaineering experience.

We want to make sure that no one gets hurt but we really want people to get out there skiing, climbing and getting into the mountains. That is really, really important (Statham, 2011).

Ledwidge stated that another reason there are virtually no management plans that deal directly with mountaineers is that there are few environmental concerns associated with this type of recreation. When compared with other forms of recreation that may take place in the NPs, such as mountain biking, mountaineering is considered low-impact. Mountain biking has recently been permitted in certain areas in Banff NP and already has an extensive and explicit management plan. Conversely, Ledwidge mentioned that while bolts, screwed into a rock face as protection for climbers, might be considered invasive infrastructure, he believed that the climbing community sees them as an insignificant form of environmental destruction (Ledwidge, 2011; Scott, 2011). His judgment is supported by research conducted by Waldrup and McEwen (1994), discussed in section 2.2.4, which illustrates that rock climbers were not offended by bolts or anchors. One Intermediate Mountaineer said,

I don’t think that bolting is scaring. I think it is a question of safety and I think dying is in exceptionally poor taste. The bolting of fixed stations...I think that is sensible, reasonable and intelligent. I don’t think it demeans the environment (Fedyna, 2011).

Ledwidge also noted that there have been several failed attempts at bolt management plans in Banff in the past, as higher levels of management did not have the appetite to complete the complex plans (Ledwidge, 2011).

Dubois cited decreasing backcountry visitation in the Mountain Parks as a final reason for not focusing management resources on mountaineers. Mountaineering generally occurs in what PC has formally declared as Zone II Wilderness, or informally as the backcountry (Dubois, 2011). This zone contains minimal infrastructure, no motorized access and makes up approximately 96% of Banff NP (Bunyan, 2011; Parks Canada, 1994) and 97% of Jasper NP (Parks Canada, 2008a).

Zone II contains extensive areas that are good representations of a natural region and that are conserved in a wilderness state. The perpetuation of ecosystems with minimal human interference is the key consideration. In Zone II, visitors have exceptional opportunities to experience adventure, remoteness and solitude associated with “Rocky Mountain

wilderness adventure” opportunities and “a step into the wild”. Motorized recreational access is not permitted. Most of the park is managed as Zone II. Zone II facilities are restricted to trails, backcountry campgrounds, alpine huts, trail shelters and Parks Canada patrol facilities (Parks Canada, 2010, p. 114).

This description of wilderness in Banff NP’s Management Plan (2010) describes many of the qualities that were noted as essential to the experience by the Intermediates in the first section of this chapter. However, if visitation to these areas is decreasing, and mountaineer numbers are few to begin with, it is understandable that PC does not actively manage for them. Bunyan was in direct opposition to this sentiment. He stated that backcountry visitation is not declining (Bunyan, 2011). Instead, he said, overnight use is declining but the number of backcountry users has increased over the last 20 years (Bunyan, 2011). This, in conjunction with Ledwidge’s impression that climbing and mountaineering have become more popular in recent years (Ledwidge, 2011), challenges the sentiment that the backcountry is becoming less desirable to visitors.

Bunyan advised that to better manage the backcountry managers should employ the ‘Area Concept’ (Bunyan, 2011). This is a relatively new model in the realm of parks management and has not yet been instated in the Mountain Parks. He recommended stratifying the Parks into areas based on user activities in order to identify and establish management goals. He used the Wapta Traverse, a renowned mountaineering and ski mountaineering traverse across the Wapta and Waputik Icefields in Banff NP (The Alpine Club of Canada, 2013b), as an example. Although the traverse starts in Banff NP, it spans across two separate field units, the Banff Field Unit (BFU) and LLYK, making management policies difficult to coordinate (Bunyan, 2011; Walker, 2012b). The ‘Area Concept’ proposes these areas be managed as a contiguous unit with clear management goals for both BFU and LLYK to follow. Statham agreed that it could be an effective system but notes that:

It is a little bit of idealism. It would be nice to have things tailored to each park like that...but big, sweeping policies come with a big organization (Statham, 2011).



Figure 17. Mountaineers on the Wapta Traverse, Crossing the Peyto Glacier
Photo courtesy J. Kuruc

Jasper NP has developed a tool, comparable to Bunyan's 'Area Concept', to enable effective backcountry management and improve visitor experience. The Backcountry Opportunity Spectrum (BOS) is based on the ROS and the concept that biological, social and managerial conditions affect outdoor recreational experiences. The BOS identifies three categories of overnight backcountry opportunities, which "vary with respect to facilities, infrastructure, degree of management and ease of access" (Parks Canada, 2008a, p. 67). These areas are semi-primitive (the most heavily used, developed and managed of the three with gravel paths, fenced campsites); primitive (less heavily-used areas with more difficult access and rustic facilities including alpine huts); and wildland (relatively untouched areas with few facilities and where random camping is allowed). Each area supports varying degrees of wilderness experience, with wildland and primitive areas likely being the most appropriate for mountaineers. Specific areas in the park (trails, valleys, lakes and campgrounds) are then classified as semi-primitive, primitive or wildland and management is tailored to provide for various visitor opportunities while accounting for the area's unique environmental qualities (Parks Canada, 2008a).

5.3.1 Rogers Pass Winter Permit System

The exception to an apparent lack of management plans for mountaineering in the Mountain Parks is the Rogers Pass Winter Permit System in Rogers Pass, Glacier NP. Rogers Pass is a world-renowned area for backcountry alpine touring and ski mountaineering because of the following attributes:

Situated in the Columbia Mountains, Glacier National Park's 1349 km² of peaks, glaciers and forest straddle the crest of the Selkirk Range, an area of legendary snowfall. Visitors to the park will find ski touring terrain including glades, alpine bowls and icefields where descents of more than 1500 meters are possible (Parks Canada, 2013b).

The Rogers Pass area is prone to many avalanches and PC VS recommend that all ski mountaineers understand travel in this complex avalanche terrain, wear avalanche transceivers and are prepared to conduct self-rescues. The Trans-Canada Highway and Canadian Pacific Rail lines run through the narrow Rogers Pass. PC VS, Avalanche Technicians and Highways crews, in conjunction with the Canadian Forces, are charged with the responsibility of keeping these main lines of transport open and safe, as well as allowing visitors access to the backcountry (Parks Canada, 2012b, 2013b; Statham, 2011). This mobile avalanche control program is the most extensive of its kind in the world (Parks Canada, 2012a). Since 2009, the Rogers Pass area has seen a 124% rise in backcountry visitation (Parks Canada, 2012b), eliciting the attention of PC management. As a result, managers and avalanche forecasters developed the Rogers Pass Winter Permit System (Fig. 18) (Statham, 2011).

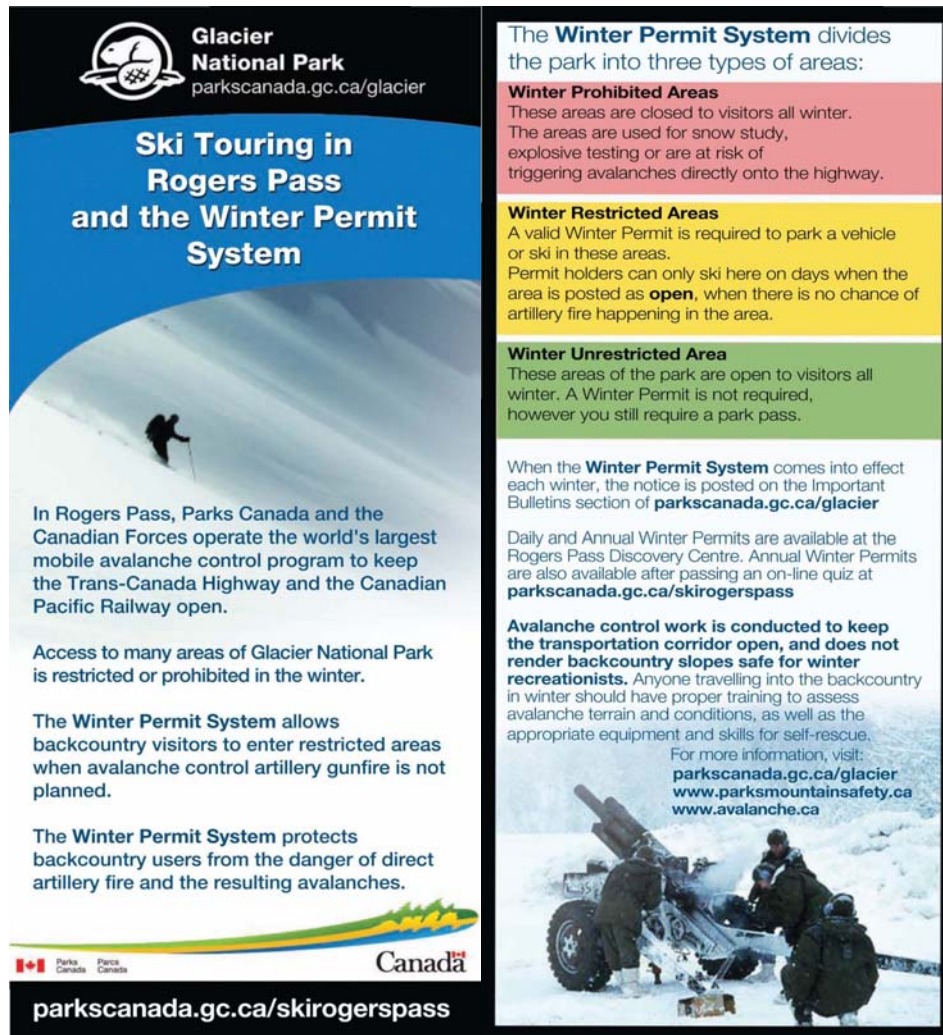


Figure 18. Winter Permit System Brochure

Source: Parks Canada (2012a), available online and at the Rogers Pass Discovery Centre

The system is a management tool designed to ensure visitor safety and depends on the cooperation and compliance of backcountry users (Parks Canada, 2012b). Users are required to take a knowledge test in order to be issued a permit, which grants them access to a series of restricted areas. The system ensures that backcountry users understand how to access and interpret avalanche forecasts and maps displaying information on avalanche control and prohibited areas (Parks Canada, 2013c). Generally, compliance levels are high (Statham, 2011) but the 2011/2012 season saw a significant increase in permit infractions (Parks Canada, 2012b). When skiers are found in prohibited areas, their permits may be revoked or they may be legally charged under the National Parks Act.

Although it would appear that the tendency is for mountaineers to react negatively to restrictions, as indicated by comments of the Intermediates in the first section of this chapter, several of the PC staff believed that some restrictions can, in fact, facilitate the mountaineering experience. Ledwidge, Statham and Walker felt that the permitting system in Rogers Pass is an example of a management action that facilitates the experience.

The permit system in Rogers Pass was put in place to facilitate their experience! It's also to help us manage the mix. We are dealing with recreation and artillery mixing together and that is a huge deal. We have to have systems in place to manage that interaction, with permits and open and closed areas. For many years prior, these areas were just completely closed. We've got quite a complex system in place now and it's taken a lot of work to set up and educate people but we've done that to facilitate the experience. We recognize that it's the best place in the world for ski touring so we don't want to just shut things down (Statham, 2011).

Walker felt that the presentation given to users was engaging and she was pleased with the level of cooperation between Parks and users. She noted that despite the numerous regulations with which visitors must comply, the amount of terrain that is left open to mountaineers facilitates access and allows for a better experience (Walker, 2012a). There were no negative comments regarding the Rogers Pass Winter Permit System.



Figure 19. Ski Mountaineers Ascend the Head Wall of Rogers Peak
Photo courtesy J. Kuruc

5.3.2 Area Closures, Restrictions, Quotas and Compliance

Although mountaineers may not be the focus of recreation management plans, KIs identified several circumstances in which they are nonetheless affected by management actions designed to maintain the ecological integrity of park sites. Bunyan identified four types of these management actions: 1) Closures – areas closed off to all visitors based on ecological or safety reasons, 2) Restrictions – legal, sometimes temporary restrictions on access or party-size restrictions in certain areas and on certain trails (e.g., party-size restrictions), 3) Warnings - usually employed in areas where sensitive wildlife have been spotted or encountered, and 4) Voluntary Restrictions/Closures– ecologically sensitive areas are closed but there are no penalties for non-compliance. A good example of this type of restriction is in place in the Fairholme-Carrot Creek Benchlands in Banff NP (Parks Canada, 2008c, 2010). Signage at the entrance to this popular rock climbing area encourages visitors to voluntarily avoid the environmentally sensitive area. Bunyan stated that this type of more lenient management is employed because outright area closures are not well accepted by visitors (Bunyan, 2011). Ledwidge echoed this sentiment:

We have received a lot of feedback in the past. [People] do not want areas closed outright unless there are really compelling reasons for us to do so (Ledwidge, 2011).

The party-size restrictions in the Lake Louise, Moraine Lake and Larch Valley areas of Banff NP were by far the most often-mentioned management actions by KIs and Intermediates. Some of the most popular mountaineering and rock climbing objectives exist in this area, including Mount Temple and a route on the Grand Sentinel (Ledwidge, 2011). When asked, “have any of your mountaineering experiences been affected by the management plan in place?” four of the five Intermediates and several of the KIs discussed the party-size restrictions negatively and mentioned that they habitually disobeyed them. Most of them discussed the safety hazards and impracticalities associated with climbing these technical routes in parties of more than two people. However, to counter their dislike for the regulation, they largely understand its practicality.

If you want to go do the Grand Sentinel, you don’t want to go in with 6, you probably only want 2 people. Very frustrating. I totally understand it but it’s still frustrating (Walker, 2012a).

There are mountaineering objectives where if you are going to do them successfully, you are almost obliged to quietly circumvent [the party-size restrictions]. It’s not to say it

would be impossible to do them without a big group, but it would be impractical. The rock routes on the Grand Sentinel – you really want to be climbing with 2 people. You don't want to have 4 people. East ridge of Mount Temple – same issue there. I think what I would be looking for is for Parks to accept that this is a problem [for climbers], and that they could quietly turn a blind eye to us. I can understand why the policy is in place (Tindal, 2011).

When I saw that restriction, I thought, “Thanks for the nice recommendation”. I do agree with that stuff though. I will avoid those areas, I think (McPhee, 2012).

I wouldn't have liked to climb it with 4 or more. I would prefer to climb only with 2. I would not necessarily comply with regulation but I wouldn't go around the rule without considering it first. I would avoid being [the mountaineer] who doesn't respect the rules but if I had a climbing goal...it would be hard not to go (Mazachek, 2011).

To be honest, most of the time, we just ignore the restrictions. We just run the risk...and look over your shoulder because who wants to climb Temple with 4 or more people? (Rees, 2011).

Dave Stark, ACMG/IFMGA mountain guide and Director of Operations at Yamnuska Mountain Adventures, admitted that from a commercial perspective, inconsistent restrictions and closures are hard to reconcile. Jasper NPs' Backcountry Guidelines (2008) acknowledges this and recommends that a cooperative permitting system between Banff, Yoho, Kootenay and Jasper NPs should be implemented so that regulations are streamlined between these Parks (Parks Canada, 2008a). Despite their disdain for these regulations, Stark and Scott noted their necessity.

Seasonal closures and restrictions are hard to keep on top of...I think it's negative effect on the experience. I understand why they are in place...and I would hate to be in a Park where you could do what you want, when you want, because it would degrade so quickly (Stark, 2012).

In areas where there are tons of people, I completely understand the strict restrictions...If you didn't have limits on [these places], it would not be an enjoyable experience because the valleys would get trashed (Scott, 2011).

Restrictions also exist on the number of clients mountain guides may travel with in the Mountain Parks and guide licensing/insurance restrictions. Although this has had some impact on commercial climbing school numbers and logistical planning, Stark indicated that they are manageable.

There was one Intermediate who admitted to fully obeying the regulations, despite not being satisfied with the implications for his mountaineering experience (Fedyna, 2011). He also mentioned that PC recently made some alterations to the party-size restriction so that climbers could access a route in the Moraine Lake area, and that he appreciated this effort to accommodate mountaineers' needs.

That restriction, I get it, I understand it...but you don't want to climb Cardiac Arête with 4 people, right? Hats off to Parks [Canada] because you can go and do Tower of Babel...access it without 4 people. That was very smart of them. I get this restriction and I go with 4 people. I'm not thrilled but I understand the logic and so I will plan around it (Fedyna, 2011).



Figure 20. Parks Canada Party-size Restriction Signage Posted at Moraine Lake
Photo M. Benjamin

PC staff were aware that mountaineers do not always respect this restriction, but the organization continues to endorse the rules based on their “priority to maintain ecological integrity” (Dubois, 2011). They recognized that visitors’ understanding of the reasons for the regulation needs to improve in order to augment compliance.

Some climbers poach closures, on [Mount] Temple especially. I can't stand the policy, it drives me nuts! But from a Parks perspective, I say you should follow the rules (Statham, 2011).

People complain about the Temple restriction. Typically if they do that, they don't understand what the restriction is about. [These] restrictions can facilitate the mountaineers' experience. If you go to the Larch Valley and don't get eaten by a bear, it probably has a positive impact on your experience! (Ledwidge, 2011)

It is hard to get people to stop and listen to that stuff. People don't want to hear about that [restriction] the morning that they are trying to do the climb. External Relations need to figure out a way to get that information out to people in a way that they will understand and respect it and be interested in it (Walker, 2012b).

Unlike some other international parks, visitor quotas are seldom used as management actions in Banff NP (Bunyan, 2011; Ledwidge, 2011). Numbers in the backcountry are regulated and tracked by the issuing of limited numbers of overnight wilderness passes (Dubois, 2011). Ledwidge denounced the efficacy of this as a method of control because very few mountaineers will stay overnight (Ledwidge, 2011). Bunyan suspected that less than 10% of mountaineers who plan to bivouac overnight in the Park actually bother to get a wilderness camping permit (Bunyan, 2011). He suggested some reasons for this:

People know that [their permits] are never going to get checked. People are bivouacking late at night and traveling light. You get the odd person who asks about it...but we give climbers very mixed messages on that one. We have a lack of consistency at the information bureaus, a lack of enforcement and very little data on the users (Bunyan, 2011).

Despite the limited use of quotas in Banff NP, Jasper NP employs this management action more readily. According to their BOS, Jasper uses two types of quotas: 1) tent quotas in the semi-primitive and primitive area campgrounds, and 2) area quotas in the wildland areas. The Jasper Visitor Information Centre administers these. Restrictions within the BOS areas also include limitations on party-size, length of stay and the use of fires. Bivouacs for mountaineering purposes are allowed in all three BOS areas but are not permitted on routes that can be climbed in a single day unless prior authorization is obtained (Parks Canada, 2008a). As in the other Mountain Parks, overnight wilderness passes are issued on a quota basis.

5.3.3 Infrastructure, Facilities, Signage and Trail Management

PC staff rarely discussed infrastructure, facilities, signage or trail management as methods of control for mountaineers in the Mountain Parks. Dubois stated that this is because

mountaineers, by their very nature, do not require much infrastructure or attention from PC (Dubois, 2011). The other KIs and Intermediates had a good deal to say about these factors and the roles they play in facilitating or hindering their mountaineering experience.

With regards to infrastructure, the main points discussed focused on the backcountry hut system in the Mountain Parks, once owned and operated by the Canadian Pacific Railway and the Canadian Parks Service, now run by the ACC under the direction of PC (Kariel, 1992). The huts have a long history dating back over 100 years, largely beyond the context of this research. There are many considerations that have gone into their construction including:

...public safety, environmental impacts, backcountry management policies, mountaineering opportunities, location of other shelters, site characteristics, and access (Kariel, 1992, p. 155).

The ACC currently operates 18 backcountry huts within the Mountain Parks (Haberl, 1995; The Alpine Club of Canada, 2013a). Unlike the huts in the Alps, which often resemble fully serviced lodges, these huts are generally rustic and require that visitors bring their own sleeping bags, food and water. They often accommodate only a handful of visitors (6-12 people) and are all situated to access hiking, backpacking mountaineering and ski mountaineering opportunities (Haberl, 1995). Visitors using the hut accommodations are not required to purchase a wilderness pass. The resounding opinion of the ACC's huts was very positive, from both KIs and Intermediate Mountaineers. They appreciated the access that the huts allowed them to mountaineering routes, the small size and rustic nature of the facilities, the environmental controls placed on the hut facilities, their unobtrusive appearance in the landscape, the chance of meeting like-minded people and the PC's collaboration with the ACC to provide a quality experience. Several interview participants mentioned that they appreciated the efforts PC had made to avoid the hut system becoming overrun as it has in some locations in the Alps (Ledwidge, 2011; Martel, 2012; Nelhams, 2011; Rees, 2011; Chic Scott, 2011; Walker, 2012a). Stark believed that, given the opportunity, the majority of mountaineers would prefer to use the huts than camp outside and that minimalist mountaineers are the minority (Stark, 2012). The Intermediate Mountaineer from Czech Republic was an outlier in this case and mentioned that he would appreciate more infrastructure and facilities and larger, more easily accessible huts (Mazachek, 2011).

The only other forms of infrastructure mentioned were parking lots, and even they were discussed infrequently. One Intermediate stated that he liked the parking lots and gravel pullouts that PC has constructed off main highways. However, he said he feels badly that he often had to climb over wildlife fences in order to take the most direct route to the climb (Tindal, 2011).

Trail signs were not a central issue, as they are not generally used as a direct management action aimed at mountaineers. As previously discussed, most mountaineers desired the feeling of *Control – self-reliance* and a *lack of external rules and restrictions*. The desire to decide their route applies here. They did not want a lot of interference from management and they do not want to be given directions on where to go. The Intermediates declared that they were skilled in navigation and thus, did not need trail signs. As of 2011, PC has been in the process of replacing deteriorating signs as it recognizes the importance of quality signage to inform, warn and guide visitors:

Signs are an important component of the Visitor Experience Cycle – travelling, arriving and visiting...Signs are more than just posts in the ground, they are part of an integrated visual communication system that takes visitor needs into consideration (Parks Canada, 2011, p. 73).

If trail signs have to be in place, for other users such as hikers and backpackers, then they should be tasteful and unobtrusive (Walker, 2012a). There was virtually no opposition to the types of trail signage used in the Mountain Parks from the Intermediate Mountaineers.

PC staff and the Intermediates discussed the issue of human waste facilities at great length. Bunyan recognized that a lack of waste facilities adjacent to climbing routes has been an issue for mountaineers as they have often found themselves high in the alpine with no outhouse for miles (Bunyan, 2011). He mentioned that some recent efforts have been made to improve the mountaineering experience by constructing outhouses in the backcountry, in areas frequented by climbers and mountaineers. An example of this is the recent construction of an outhouse at the back of Moraine Lake in Banff NP. “That is purely there for the climbing community” (Bunyan, 2011). Ledwidge stated that great efforts are made to manage human waste at the ACC backcountry huts as well. Although most interview participants initially stated that they did not want to see any infrastructure or signs of human encroachment, when the topic of waste management was brought up, they changed their attitudes and admitted that outhouses and basic facilities, in high density areas, were acceptable and even expected (Fedyna, 2011; Martel, 2012; Tindal, 2011). When asked to describe their worst mountaineering experiences, several

participants described international mountaineering trips where they were confronted with disgusting conditions in high use areas lacking waste facilities (Fedyna, 2011; Martel, 2012; Nelhams, 2011; Walker, 2012a). This detracted from their experiences. When asked if they would consider carrying out their own waste, most agreed they would.

The term “trail management” seemed to have negative associations for the Intermediates. They seemed to think that it referred to overly managed trails, tailored to specific experiences or viewing opportunities.

There are places for the manicured trails, but I don’t think any climbers are interested in concrete or infrastructure (Tindal, 2011).

PC’s definition of trail management is different and has several objectives:

Trails are a fundamental part of many visitors’ experiences. They facilitate interactions with landscapes and places. They help achieve resource protection objectives through their routing and sustainable design and construction. Trails are a vital service offer and lead visitors to inspirational places and experiences and are a mechanism for education (Parks Canada, 2011, p. 65).

Bunyan thought that trails designed with mountaineers in mind could, in fact, facilitate the experience. Most hiking trails in the sub-alpine regions are already managed and maintained to prevent erosion and to encourage users to stay on the paths to avoid vegetation destruction. If alpine trails were also managed, user impact could be confined to smaller areas. Bunyan affirmed the use of ridgeline trails might limit impact on delicate alpine vegetation and would provide the mountaineers with the vistas and views that they crave. Keeping them on the trails might be difficult, he suggested, because once mountaineers are in the alpine they tend to pick their own route (Bunyan, 2011).

When asked if they would appreciate the ‘Long Walk-in’ trail management technique used in the Scottish Highlands, most of the Intermediates said that they would not approve of its use in the Rockies – that it would be “irritating” (Tindal, 2011). They felt this way because they believe the climbing areas here do not experience the same volume of visitors as CNP. However, they said that they understood the value of the ‘Long Walk-in in busy areas, especially if it improves *solitude*.

5.3.4 Visitor Experience

Parks Canada is placing new emphasis on visitor experience to encourage visitors to have a sense of personal connection to the protected heritage place visited. This will ensure the Agency’s continuing relevance to Canadians (Parks Canada, 2011, p. 13)

The VE branch of PC is a relatively new one, instated as the External Relations and Visitor Experience Branch in October 2005, at the Third Minister's Roundtable on Parks Canada. As the above citation conveys, visitors' experience is becoming a higher priority for the Agency. The PC staff were asked about their roles within the VE branch, how they felt about the shift towards visitor experience, and how they thought visitor experience programming might affect mountaineering recreation in the Parks. There was some inconsistency in their responses and disagreement (heated opinions) about the importance of the VE branch.

When asked if they believed if the much talked-about managerial shift towards providing for the visitors' experience was perceived or real, most of the PC staff were in agreement that it is a perceived shift and that the Agency's first priority remains conservation.

I think it is a perceived shift. We do have that as part of our mandate. We call it an integrated mandate as the three pillars...of our mandate are mutually supportive. The idea is that we protect ecological integrity, that provides better visitor experiences and when people are out there engaging in these activities, they are learning and appreciating and connecting to the place and that will foster a long-term commitment to Parks. At the end of the day we are required to manage for ecological integrity so that we can still have meaningful visitor experiences (Dubois, 2011).

There is a perception that we are shifting towards the visitor experience aspect of management planning, both internally and externally, but let's face it, that's always been a focus and it is not new in my mind. But, there is this idea that we are going to try to attract more people (Ledwidge, 2011).

It was a huge commitment from Parks to shift focus to the visitor. We are never going to give up on the protection mandate – that is our number one. But who are we preserving it for? Let's get people out there, enjoying it while we have it (Walker, 2012b).

Their comments were all aligned with the National Parks Act that states that the maintenance of ecological integrity must be the first consideration in management planning (Parks Canada, 2008b). When asked to describe her role as a VEPDO for PC as part of the LLYK Field Unit, Walker had to say the following:

I'm a Product Development Officer. That means I create products that will create an experience for visitors that will connect them in a positive way to the Parks. They'll leave here feeling a sense of satisfaction and they'll want to tell others about their experiences. I'll work with other staff, trail crew, the planners, the Visitor Info Centres, the interpreters to create a product (Walker, 2012b).

She mentioned that although she was interested in creating products for the mountaineering community because she is an avid mountaineer herself, her superiors had told her that this is not currently a target group for VE. Given the opportunity, she felt quite strongly that she could encourage more mountaineering in the Parks with the right product. Understanding that *decision-making* and access to information are important elements of the mountaineering experience, she recently designed the ‘Dashboard’ product – a PC online hub aimed at providing mountaineers with information they might need to plan and execute their mountaineering trips in the Parks. She explained it would include links to PC regulations and trail reports, Canadian Avalanche Association’s (CAA) avalanche forecasts, weather forecasts, ACC hut accommodation booking systems, ACMG guides for hire and road condition reports. Due to VE operational requirements however, Walker has had to adapt her ‘Dashboard’ to suit the needs of cross-country skiers instead, a group VE considers to be “lower lying fruit” (Walker, 2012b). Intermediate’s reactions to Walker’s ‘Dashboard’ will be discussed in further on.

Other PC staff were not as enthusiastic about the VE branch as Walker. Aside from Walker herself, VS staff and Backcountry Specialists were convinced that most of the VE branch employees do not understand the intricacies of mountaineering and backcountry users.

As far as dealing with climbers and mountaineers...that’s us [Visitor Safety]. The Visitor Experience guys don’t have a clue. Not to mean that in a condescending way, but most of those staff don’t participate in those activities and aren’t really familiar with the subtleties of mountaineering (Ledwidge, 2011).

Most of the VE folks do not come from an outdoor or backcountry background. They have been hired from a tourism promotion and marketing and branding perspective. One of the primary goals of VE is to increase visitation. Given that context and the relative culture in VE, their focus is going to be on the front country... Until someone can drive these changes, no one will deal with the softer issues because no one is responsible (Bunyan, 2011).

Despite this, Walker went on to explain how the EQ types do indeed apply to mountaineers. She hypothesized that both intermediate and expert mountaineers would likely fit the *Authentic Experiencers*, *Free Spirits* and *Cultural Explorers* types (Table 5.1). This information would be used if VE were to design products to suit mountaineers’ desires and expectations.

Table 5.1 EQ Types of Mountaineers

Explorer Quotient Category	Learning Explorers		Social Explorers
Explorer Quotient Type	Authentic Experiencers	Cultural Explorers	Free Spirits
Social Values	• Ecologically concerned • Globally aware – open • Spontaneous/creative • Targeted traveller – strategic • Learn through the experience • Control important • Not rules bound • Social, independent, self-reliant • Supportive, cooperative	• Ecologically sensitive • Globally aware • Flexible, creative • Explorer of the unique • Reasoned risk-taker • Self-willed, organized • Positive perspective • Social, independent, self-reliant • Supportive, cooperative	• Greatest number of trips, more weekends • Spend time with friends • Organized groups • Luxury and status • Strong sense of personal challenge • Craves social intimacy, celebrating passages and crowds
Travel Lifestyle and Interests	• Natural landscape wanderer • At ease with nature • Links nature and culture for understanding • Seek biotic understanding • Knowledge seeker • Oriented to life long learning • Seeks road less travelled • Rugged comfort – related to experience	• Lesser known cultural experiences/discovery • Freedom from norms • Culturally different situations – growth • Integrates history and current culture • Seeks discussion with informed people • Engages in new cultures • Devises own itinerary • Comfort fits experience	• Travel abroad is continuous and exciting • Luxurious venues • Checklist samplers: see all the main attractions, little depth • High energy • Be centre of attention • Attracted to groups, shared experiences • Always looking for someplace new • Wants structure
Experience Sought	• Connection with authentic culture and environment • Understanding and appreciation of the natural environments • Observe people and places • Personal development • Full immersion • Stay away from group tours, “tourist traps”	• Constant travel • Embrace, discover, and immerse in experiences • Visits historic sites / watches from sidelines • Participation in the modern-day culture • Converse with locals, attend local festivals • Go off the beaten track	• Constant travel • Always looking for fun and excitement in their travel experiences • Thrill and emotional charge of doing things they can’t do at home • Talking to others and seeking out inspiration
Meaningful Outcomes	• CONNECTION: Identification with place • GROWTH: Knowledge/perspective • ACHIEVEMENT: Personal best • CONTRIBUTION: Legacy by contributing	• CONNECTION: Identification with place • GROWTH: Knowledge/perspective • ACHIEVEMENT: Personal best • CONTRIBUTION: Legacy by contributing	• CONNECTION: With people and culture • GROWTH: Bond and understand • ACHIEVEMENT: Group/family event • CONTRIBUTION: Personal heritage

Adapted from Parks Canada (2009)

5.3.5 Overall Satisfaction and Strategies for Improvement

If examined as a contiguous group, the majority of interview participants approved of the current situation for mountaineers in the Mountain Parks. They value the qualities that the Rockies inherently provide for the optimal mountaineering experience – the geography and beauty of the mountains, the solitude, the variety of objectives, the like-minded members of the tight-knit local climbing communities. For the most part, they also approved of the way PC deals with/manages mountaineers. As shown, there are a few areas of possible improvement. These, along with overall levels of satisfaction, will be summarized here.

When asked about their satisfaction with the policies (or lack thereof) for mountaineers in the Mountain Parks, and what they would do to change PC's approach, given the opportunity, the PC staff were the most critical respondents. They mostly discussed what could be improved upon. Statham was the most positive in his responses and noted that the Mountain Parks indeed meet some of the 7Cs by providing an excellent setting or *Context*, *Control* and *Community* for mountaineering. He felt that the Parks' strongest characteristics are the variety of climbing objectives, the many opportunities for different skill levels, the untouched wilderness, and the climbing/ skiing/ mountaineering information provided by PC. Other staff were not as confident in the Parks' ability to provide for all aspects of the experience and they commented on the many flaws in their management systems:

There's an attitude that mountaineering recreation doesn't really play a role. We have no idea on numbers as an agency – how much climbing actually goes on. Not a clue. We're kind of winging it as an agency [laughing]. That information might actually open up some minds that there is quite a bit of this stuff going on. If there was some way to monitor climber and mountaineering numbers, it might change things, in terms of the need for a management plan. I think everyone should get the same attention (Ledwidge, 2011).

We need to improve how we are doing things with visitors in the backcountry. A lot of our ideas are outdated. We really need to do more backcountry planning (Bunyan, 2011)

Walker says that she has a high tolerance for PC management actions when she is recreating but she also feels that Ledwidge and Bunyan's comments are correct. Despite thinking that some regulations could be changed and focus shifted to more backcountry activities for the VE branch, she mentions,

Things just don't happen at the speed of light here and today's society wants instant gratification, but you just aren't going to get that from an organization like this (Walker, 2012b).

The other KIs, such as the Mountain Guides, SMEs and Interest Groups were mostly pleased with the management systems currently in place.

I'd say I'm pretty satisfied with what has been going on. I see the Park being managed; I don't see mountaineers being managed. I don't think I've ever had a negative experience with Parks. In my mind, getting the Park entry permit is easy. The fees aren't bad and the system is set up well. The rescue insurance that is covered by the entry fee is phenomenal...and I like the idea of having a steward for the Parks. If anything, I'd like to see more efforts put into...enforcement of illegal guiding [regulations] (Stark, 2012).

Scott echoed Stark's feeling that he prefers tight restrictions on visitation in high use areas (Scott, 2011). Stark was also pleased with VS's use of online social media and their recently updated Avalanche Bulletin.

Some of the KIs, however, had issues with the way PC is managing the backcountry. There were two strongly dissenting voices – Rees and Scott. Rees felt that PC does not want people in the backcountry and that they are actively trying to prevent interest groups, like the ACC, from practicing there.

I think Parks has developed this attitude that...to keep things as [true] wilderness, you have to keep people out. For those who want a true wilderness experience, which I think mountaineers do, I think we have to sneak around the Parks [restrictions]. Parks has been running interference [with the ACC] for years. They are here to interfere with us more than they are there to help us along. That is the bottom line (Rees, 2011).

Scott reiterated Rees' scathing comment, although to a lesser degree:

I think Parks is trying to over control the backcountry, which is a bit strange because they just...removed the major element of surveillance and control in the backcountry – the Warden Service. I find those restrictions in the backcountry are unnecessary, especially when there's no one around (Chic Scott, 2011).

Overall, the Intermediates were adequately pleased with mountaineering in the Rockies; both with what the experience that the mountains themselves provide, and the management in the Mountain Parks.

I'd say that my experience with Parks overall has been fantastic. I think Banff National Park does a really good job. I'm absolutely satisfied with the way Parks deals with mountaineers (McPhee, 2012).

As demonstrated in previous sections, they appeared to be accepting and understanding of management actions in the Mountain Parks, specifically regulations that are designed to protect

ecological integrity. Nevertheless, they admitted that they do not always comply with the rules, despite their support for them.

The most common elements about the Mountain Parks that garnered praise from the Intermediates were the *wilderness experience*, the *variety* of climbs to be tackled, the alpine hut system, the sense of *freedom*, and the *solitude*. Most said that they would like to have snowmobile or helicopter access to remote climbs in the Parks, but that they understood why this was not possible. Finally, the rescue service provided by the VS teams in the Mountain Parks earned praise. Three of five Intermediates described stories in which they had sustained major injuries as a result of mountaineering accidents and how VS specialists had rescued them. They described the rescue service, and the rescuers themselves, as professional, timely, adept and understanding (Fedyna, 2011; McPhee, 2012; Walker, 2012a). The only thing they wanted more of was one-on-one time with the team; they were described as a fantastic resource for information and safety, but they are too busy and hidden away in the Warden's office (Fedyna, 2011).

The common thread that linked all of the Canadian interview participants, KIs and Intermediates alike, was the paradox they presented with regards to mountaineering management. Most admitted that they wanted PC to know more about them, to understand their needs and desires, but to leave them alone. For example, all said that they did not want their experiences to be tailored, but they countered that with appeals for infrastructure and facility improvements, easier access and changes to regulations in order to optimize their experience. Tindal (2011) summarized it best with, "Parks need to take us into consideration a bit more but also leave us alone". They also presented a contradictory view towards heavily managed areas: they would rather avoid these areas except if the views are spectacular. They displayed an acceptance towards heavily managed areas when there are crowds, which, if unregulated, could damage the ecological integrity.

5.4 Current Management and Conditions: Cairngorms National Park

The Cairngorm Mountains are at the heart of the park and they have been shaped by the people, landscapes and culture around them. Rather than seeing the people apart from the core mountain area, we prefer to see them as co-existing. That is part of the tradition that climbers and mountaineers experience here (Pothecary, 2011).

The Scottish Parliament legislated the creation of NPs in Scotland in 2000 (Cairngorms National Park Authority, 2007a), resulting in the opening of CNP in 2003, one of only two Scottish NPs and the second study site for this research (Fig. 2). Based on archeological records, people have been living, working and recreating on the land for the last 7000 years (Cairngorms National Park Authority, 2008), which has necessitated a park management structure different from that of Canada's NPs. CNPA managers must juggle multiple competing land management goals, stakeholders and visitors. Most of the land within CNP is privately owned (75%), while 13% is owned by the voluntary sector and 10% is owned by state agencies (Cairngorms National Park Authority, 2007a). The "complexity of the [landscape] means that management will need to address a multitude of potentially conflicting priorities" (Stockdale & Barker, 2009, p. 479).

The mountains in CNP are a key destination, drawing an estimated 767,000 mountaineers to the region in 1996 (Cairngorms National Park Authority, 2007a; Price et al. 2002).

There is a strong history of mountaineering and skiing in the area, valued as a centre for the skills and culture associated with these activities, as well as renowned opportunities for ski mountaineering, rock and ice climbing (Cairngorms National Park Authority, 2007a, p. 27).

Mountaineering, winter ice climbing and summer rock climbing are commonplace in CNP and ski mountaineering is increasingly popular (The Mountaineering Council of Scotland, 2013a).

Winter climbing in the Cairngorms is brilliant. Within a 45 minute walk from your car, you can be on a mountain crag in the middle of winter, and you feel like you are in the middle of nowhere (Hollinger, 2011).

Despite the differences in landscape scale and management structure from the Mountain Parks, the majority of KIs interviewed in Scotland believe that opportunities to experience the optimal mountaineering experience exist in CNP.

5.4.1 Land Reform (Scotland) Act 2003 and the Scottish Outdoor Access Code

The Land Reform (Scotland) Act 2003 gives Scotland what is probably the best system for outdoor access in the world (Cairngorms National Park Authority, 2007a, p. 82)

The Land Reform (Scotland) Act 2003, authorizes statutory, non-motorized access rights to everyone over most land and inland water across the country, free of charge, for recreational or educational purposes (Scottish Parliament, 2003). The Act stipulates that in order for these access rights to be taken however, they must be done so “responsibly” (Scottish Parliament, 2003, p. 6) and deems the CNPA responsible for management and education of outdoor access systems within the Park boundaries (Cairngorms National Park Authority, 2007b). The Scottish Outdoor Access Code (SOAC) provides details on responsible access and how it applies to both access takers and managers. It defines responsible outdoor access as the respect of “people’s privacy, safety and livelihoods, and Scotland’s environment” (Scottish Natural Heritage, 2005, p. 1). In order for this system to function, government and management authorities have recognized that “... all access takers and access managers [must] develop an effective understanding of responsible access...” (Cairngorms National Park Authority, 2007a, p. 103). This system is drastically different from that governing access rights in North America and in particular, Canada’s Mountain Parks. Because of this legislation, there are essentially no access restrictions, quotas or other management actions (other than the restriction on Cairngorm Mountain, which will be discussed later). The SOAC is the only document that discusses access with specific respect to mountaineering and climbing, recommending that users conduct themselves responsibly:

Access rights extend to climbing. Follow any agreements between a land manager and recreational groups that see, for example, to safeguard a rare bird nesting site (such an agreement might ask you not to climb particular cliffs or sections of cliffs during the breeding season) (Scottish Natural Heritage, 2005, p. 77).

5.4.2 The Cairngorms National Park Plan and the Outdoor Access Strategy

The nature of Scotland’s access legislation, its cultural approach to land use and its geography demand a management approach quite unlike that of PC. The CNPA is not a landowner, nor is it legislated to authorize or disallow activities to take place within Park boundaries. Rather, it is responsible for creating the CNP management plan and,

...leading and enabling the action and partnerships necessary to achieve all four [National Park] aims - to engender a collective sense of purpose. The Authority’s role is to facilitate, coordinate and add value to the work of others within the Park (Cairngorms National Park Authority, 2007a, p. 19).

The Park is located at the crossroads of several cultural and administrative boundaries, including 4 highland council authorities, along with numerous communities, industries and commercial enterprises. Stockdale and Barker (2009) note that “the emphasis on cooperation and partnership is apparent throughout the planning and management process” (p. 484). Fran Pothecary, Outdoor Access Officer for the CNPA stated, “we don’t own the land and we don’t manage the land directly but we work [by] trying to influence other land managers and owners” (Pothecary, 2011). She described the four roles of the CNPA:

1) Make sure that the access rights that people have in law are upheld, i.e. resolving conflicts between land managers and recreational users, 2) publish and promote the Scottish Outdoor Access Code, 3) set up and run local outdoor access forums...and 4) draw up the Core Paths Plan (Pothecary, 2011).

Despite its stakeholder engagement efforts, Stockdale and Barker (2009) argue that “the [CNPA] may struggle to bridge the policy-implementation gap...[there may be a] mismatch between strategic ambition and local level capacity” (p. 479). The CNPA is in its infancy and the long-term success of its management style has yet to be proven.

The National Parks (Scotland) Act 2000 and the CNP Plan outline goals for conservation, sustainable use, enjoying and understanding the park and living and working in the park. The success of the Park’s management is dependent on the collective approach to all of these aims. The CNPA states the 2030 vision for the Park is to become:

An outstanding environment in which the natural and cultural resources are cared for by the people who live there and visit; a renowned international destination with fantastic opportunities for all to enjoy its special places; an exemplar of sustainable development showing how people and place can thrive together. A National Park that makes a significant contribution to our local, regional and national identity (Cairngorms National Park Authority, 2007a, p. 4).

The CNP Plan is an exceptionally comprehensive document identifying national, regional and local strategies for tourism and transport, quality visitor experience, outdoor recreation access, water management, moorland management, air quality monitoring, forest and woodland management and fisheries and wildlife monitoring and management. Two of the three main strategic objectives are reflected in those of PC: conservation, understanding and enjoying the Park (Cairngorms National Park Authority, 2007a). However, the third objective, sustainable development, is not within PC’s mandate. There are several points in the CNP Plan that are mirrored in the majority of the 7Cs. CNP’s “Conserving and Enhancing the Park” strategic

objective places priority on “conserving and enhancing the sense of wildness in the montane area and other parts of the Park” (Cairngorms National Park Authority, 2007a, p. 38). The Plan recognizes that these areas are often visited because of the wildness experience that they offer; an element deemed essential to the mountaineering experience in Phase 1.

This sense of wildness and quiet enjoyment should be safeguarded from encroachment by human infrastructure, inappropriate activities or intensive mgmt. New tracks, paths, roads and structures ...should seek to minimize effects on the experience of wildness (Cairngorms National Park Authority, 2007a, p. 38).

The second objective, “Understanding and Enjoying the Park”, recognizes that efforts to turn the park into a world-class destination will require a strong focus on educating visitors. In that “quality of experience is key to the long-term sustainability of tourism” (Cairngorms National Park Authority, 2007a, p. 79), the plan recommends that managers develop a wide range of opportunities (for visitors, in collaboration with stakeholders) to adapt to changing recreational desires, and to encourage high standards of ‘Responsible Use’ of the Park. It recognizes the balance that must be achieved in order to reach both the conservation and recreation strategic goals:

[Sensitive environmental areas] should be addressed through sound and unobtrusive management wherever possible. Protecting these areas does not mean that they cannot be enjoyed for recreation, but that access should be managed and enjoyed responsibly (Cairngorms National Park Authority, 2007a, p. 82).

In addition to the Park Plan, the CNPA prepares an Outdoor Access Strategy (OAS), a document that details the Park’s plan for access takers and managers, in an attempt to simplify the complexities of access in the area. The main aims of the OAS are to improve path condition, promote responsible outdoor access and management, promote communication between managers and recreational users, enhance the role of park rangers and provide visitor information about outdoor opportunities for enjoyment (Cairngorms National Park Authority, 2007b; Pothecary, 2011).

5.4.3 Outdoor Access Forum and Core Paths Plan

Price et al. (2002) noted that public participation in setting goals for land use in Scotland’s mountains is an important management consideration. The CNPA is charged with the execution of the Cairngorms Local Outdoor Access Forum, the purpose of which is to advise the

CNPA on outdoor access matters (e.g., the resolution of access disputes, rights of way and the Core Paths Plan) (Pothecary, 2011).

After extensive public consultation in 2004 the Cairngorms National Park Authority set up a single Forum for the Park comprising 21 individuals representing land managers, community interests, recreational users and public agencies. (Cairngorms National Park Authority, 2013).

Managed by the CNPA and developed by the Outdoor Access Forum, in consultation with the public, the Core Paths Plan consists of maps and lists delineating the system of essential paths through the Park. Pothecary described the Core Paths planning process:

We consulted with specific user groups like riders, cyclists, hill walkers and mountaineers. We set up consultations within each community in the National Park, took large maps and asked “what paths do you use and for what?” It’s about trying to meet the needs of multiple user types. Mountaineers didn’t want to see paths that were obvious, that were waymarked, that were improved. There was a strong feeling that came out of that [process] which was to keep places wild, natural, don’t develop them...because that is what mountaineers want. They want to have their experience [be] as authentic as possible, untrammelled by development (Pothecary, 2011).

Paths were selected as ‘Core Paths’ if they provided easy access for locals and visitors around the Park and if they minimized conflicts between Park user types. Through consultation with mountaineers and upland users, it was determined that some of the more remote upland paths will be left free of human encroachment (i.e., signage), and will require some navigational skills on the users’ part. Pothecary said the process had been successful thus far and recreational users said they had benefited from being included in the decision-making process.

5.4.4 Action Areas

Price et al. (2002) recommended that Scotland’s mountain ecosystems be managed not solely on altitude, slope, relief and flora but instead that an integrated approach be used at

...the regional or landscape scale...taking into consideration not only the topography and ecosystems...but also criteria linked to human activities and perceptions, such as landscape character...and the “sense of place” perceived by visitors (Price et al., 2002, p. 10).

CNPA and the OAS have thus divided the Park into eight ‘Action Areas’, “areas that are considered to have distinct characteristics and requirements in terms of outdoor access and management” (Cairngorms National Park Authority, 2007b, p. 69) (Fig. 21). The ‘Action Areas’ have been selected and grouped based on landscape character, types of recreation practiced there

and the access priorities and similar management problems (Cairngorms National Park Authority, 2007b). Outdoor access priorities are applied in all the areas generally but are more specifically tailored to each area according to its landscape and needs. In some places, the areas overlap one another and extend beyond CNP boundaries. This concept is akin to Bunyan's 'Area Concept' and Jasper NP's BOS, but with a greater focus on the human interaction with the landscape.

The Action Areas of interest to this research are Area A) Central Cairngorms and Area H) Cairngorm, Rothiemurchus and Glenmore, because of the access they provide to mountaineering objectives. Area A) has many upland trails and popular climbs with good access throughout the area. Some of the biggest mountains in the Park, including Cairngorm Ski Hill and 20 mountains over 3000 feet are situated here. Most of the terrain in this area is sub-arctic uplands containing fragile montane vegetation. This is also a very popular area for mountaineering. Area H) sees the highest access pressure in the park, not just by mountaineers but also by rock climbers, ski mountaineers, ice climbers, hikers, cyclers, orienteers and equestrians. This pressure increases in winter and is compounded by the fact that there are only a few "setting off" points, or trailheads, that are used regularly (Cairngorms National Park Authority, 2007b). In both areas, there is potential for user conflict, overuse and environmental damage and the OAC thus recommends that management actions focus on the promotion of 'Responsible Use', condensing setting-off points and providing more targeted visitor information and education. Potheary declared that defining 'Action Areas' has been an effective management tool in CNP thus far. Because mountaineers generally use two main access points, (Cairngorm Mountain in the North and Mar Lodge Estate, near Braemar, in the South) limited nodal access enables far greater control of users than is seen in the Alps, where there are many more nodes or access points.

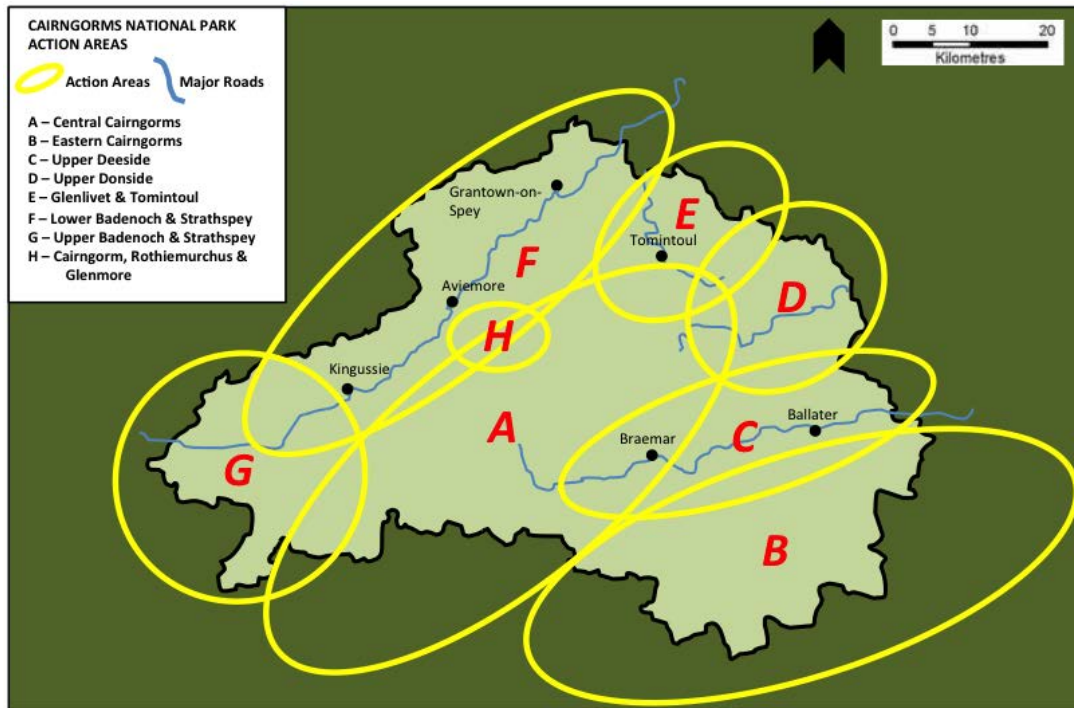


Figure 21. Cairngorms National Park Action Areas
Adapted from Cairngorms National Park Authority (2007b, p. 69)

5.4.5 Management Actions, Responsible Use and Compliance

In general, there are no closures or restrictions in the Park. Bylaws and rules are few and far between as they are “to be used as a last resort” (Scottish Natural Heritage, 2005, p. 109) for management. There are no park permits or entrance fees. In the UK as a whole, bird bans were the most often mentioned form of restriction. Price described them as,

...semi-soft laws about not climbing where there are cliff-nesting birds. Generally people respect those pretty well. They are voluntary however, unless you are stealing the eggs and in that case, it is punishable by law (Price, 2011).

Price believed that the relatively high compliance rates among climbers for bird bans is due, in part, to normative beliefs – perceived social pressures from other climbers (Marion & Reid, 2007). Apart from bird bans, Price said, “climbers tend to be anarchists. There is nothing that will stop them from going where they want” (Price, 2011). Hanemann (2000) argues that self-regulation of climbers is widespread across the UK and represents a significant form of restriction.

Pothecary and Price discussed the controversy surrounding a funicular built to the top of Cairngorm Mountain, also the location of the local ski hill. The area has been identified as

ecologically sensitive for flora and certain bird species (Price, 2011) so although there are no access restrictions in the winter, the funicular has been turned into a “closed system” (Pothecary, 2011) in the summer: visitors are allowed to take the funicular to the top of Cairngorm Mountain to view the scenery from the summit, but they are prohibited from leaving the funicular station. Pothecary said that this system has been quite effective in protecting the fragile habitat, which is prone to disturbance. However, as the funicular represents an easy way for climbers, mountaineers and hikers to access the uplands, some users are perturbed that they are prevented from doing just so and often jump the fence (Pothecary, 2011).

The way that Cairngorm Mountain has dealt with [its strict management actions] is by celebrating the closed system, telling people that they are getting this experience that they couldn't have otherwise by [helping to] protect the environment. Mountaineers were very against the funicular being built. They preferred the long walk-in or to use their bikes (Pothecary, 2011).

She suggested that by showcasing other elements of the experience, managers could lessen detractors and improve compliance.

Unless you have a lot of rangers or wardens on the ground, regulations won't necessarily be effective. We have to recognize that we don't have those kinds of resources. We need to look more along the lines of education as being the best way to influence people's behaviour (Pothecary, 2011).

The 'Long Walk-in' management action gets mixed reviews from the KIs. Price says if it is a long boring walk in, then he might be bothered by it. On the other hand, he says,

It's nice to have good access but equally it's nice to find the balance between remoteness and having to walk in so that you don't have thousands of people around (Price, 2011)

Heather Morning, Mountain Safety Advisor for The MCoFS said that the general opinion of the mountaineering community is:

...that people don't want a lot of vehicles up in the mountains and that they are quite happy to access the hills via a longer walk-in. I think people have just modified their behaviour as [this management action] is seen as quite positive (Morning, 2011)

The KIs consistently mentioned the principle of 'Responsible Use' – with the promotion of and education about best practices, strict management actions are not necessarily required. When asked, “how do management actions facilitate or detract from the visitor experience of mountaineers in the Cairngorms?”, Morning had the following response:

Management that promotes responsible use facilitates the mountaineer's experience. I think that there is a [ingrained] mentality amongst Scottish mountaineers that it's a God-given right for us to roam. I think any sort of regulation trying to change that would meet a huge about of hostility (Morning, 2011).

When asked what has given her the impression that the 'Responsible Use' approach to management is good for mountaineers, Potheary said, "by listening to the climbers in the mountaineering community" (Potheary, 2011).

I think it's all very positive and I can say that as a visitor as well as a professional. I think [our management philosophies] encourage a sense of responsibility in people [to] their environment. It encourages the recognition that, even on a small level, we do have an impact and if we can reduce that impact by reducing waste, paying a car park charge to put money [towards] trail management, then it's very positive. I always think it's funny – most mountaineers will say, "what do you mean I'm being managed for?" [Management] initiatives that persuade us to give back, to be self-sufficient in the mountains and to take some responsibilities... bring them on! (Potheary, 2011)

Price mentioned that although there are no management plans specifically for mountaineers directly, there are issues about their use in CNP, and more widely in Scotland, that catch managers' attention including "a) access, b) safety and mountain rescue, c) avalanche control and d) winter mountaineering, snow holing and human waste" (Price, 2011). He, Morning and Potheary noted that the CNPA and MCoFS cannot really develop an approach to managing for mountaineers when the land is not theirs to own.

Dave Hollinger, IFMGA Mountain Guide and Director of Peak Mountain Training, noted that the CNP's management has not affected his mountaineering experience negatively, as he uses the land in a responsible manner. Morning agreed that the majority of the mountaineering and climbing community are responsible, especially in terms of safety.

Most of the management actions that the NPs have implemented have been pretty laissez-faire, and are aimed at responsible users. If you fall into the irresponsible user category, you would find [the rules] a total pain in the arse (Hollinger, 2011).

The majority of hill-going folk in the UK are very respectful of the environment. We have a very good ethic in the mountains, but there is always the small minority that spoils it for the majority... People are generally compliant and behave in a responsible manner. If you look at the mountain rescue stats, and think of the hundreds of thousands of people who are out in the hills every weekend, it's only a very small minority who get themselves into difficulty (Morning, 2011).

5.4.6 Fees, Infrastructure, Facilities, Waymarking and Path Maintenance

The KIs viewed fees in CNP as controversial. Price declared that there are three ways to acquire funds to pay for parks management: 1) money from government, 2) money from charities and member organizations, and 3) charge visitors for access (Price, 2011).

Recreationists are willing to pay for facilities such as car parking and interpretation, but paying for access per se is something they would resist on principle (Price et al., 2002, p. 29).

This comment is in direct contrast to what Intermediates and KIs in Canada seemed to accept. Whereas in Scotland, Price alluded that an entrance fee would be unacceptable, visitors to Canada's NPs pay an entrance fee but often resist further fees for camping, parking or interpretive events. The contingent valuation theory, which attempts to assign a financial value to the mountain environment by asking the public how much they would be willing to pay to preserve or enhance its elements, suggests that this discrepancy in what visitors are willing to pay might be attributed to:

...an information deficit, dissension over the proposed means of bringing about the change in the public good, an ethical objection to the idea of placing valued environmental objects in a market context, the belief that paying for environmental quality is the responsibility of government rather than individual citizens, and/or that other social groups should pay (e.g. polluters, users, etc.) (Jorgensen, Wilson, & Heberlein, 2001, p. 134).

At many locations in the CNP, parking fees are voluntary and compliance is high (Pothecary, 2011). Compliance "is higher if you ...tell people where the money is going. If you have proper pay machines or an attendant, people are more likely to pay up" (Pothecary, 2011).

I would be less pissed off if I knew the money was going to conservation or footpaths. If it was just going into some fat cat's purse, then I would feel very putout and wouldn't enjoy the mountains as much (Morning, 2011).

People always grumble when they have to pay for parking. I'm not entirely sure that all car parking income is responsibly put back into the system. But then again, maybe we grumble because in the past in the UK, we never had to pay for [access] or parking (Hollinger, 2011).

The KIs discussed only one form of infrastructure used by mountaineers at length: mountain bothies and refuges.

A unique thing about the Scottish landscape [is the presence of] mountain bothies...old mountain dwellings that are dotted about the landscape that people use as shelters on

trips. They are usually unlocked, extremely basic and most of them have no more than a fireplace and a bare earth floor. [Their use] is part of traditional Scottish mountaineering (Potheary, 2011).

Bothies and refuges are Scotland's version of the alpine hut, although different from both the ACC huts and the outfitted huts in the Alps. Once used as stables, sheep holds and other forms of highland shelter, most bothies are maintained by the Mountain Bothies Association (MBA) charity. They are not managed by the CNPA directly. They range in their levels of primitiveness - some have composting toilets and some have virtually no facilities for human waste disposal. Potheary and Morning attested that many mountaineers use the bothies for more than just an emergency overnight. The MBA, in cooperation with the MCoFS and the CNPA, has made efforts to refurbish many of the old structures in CNP and this has been well received by recreationists (Mountain Bothies Association, 2013).



Figure 22. Fords of Avon Bothy Located Near Aviemore in CNP
Source: McHale (2011)

There are few backcountry waste facilities in CNP, as management has made avoidance of signs of human encroachment a priority. However, human waste accumulation at popular crags and winter snow-holing locations was becoming a health concern, and negatively affecting visitors' experiences (Mountain Bothies Association, 2013; Potheary, 2011). The Cairngorm Ranger Service initiated the 'Poo Project': to reduce the amount of human waste left in the hills,

small, water and airtight plastic poo pods are now provided to visitors to carry out and dispose of their waste at the Ranger Base facility free of charge (James, 2009). Potheary said that most people comply with the recommendation, despite the 'Poo Project' being voluntary (Potheary, 2011).

Signage, or waymarking, was one of the most often discussed issues by the KIs, and it is referenced several times in the CNP Plan. Waymarking "...clearly has an important role to play in helping people to find their way around but can also detract from some visitors' experience" (Cairngorms National Park Authority, 2007a, p. 49). As the CNP landscape is generally devoid of obvious, intrusive infrastructure, the CNP Plan mentions the need to develop appropriate forms of waymarking to follow suit. With regards to the uplands and more remote areas, the CNP Plan states,

There will be a presumption against waymarking in the wild, remote or other sensitive areas, especially in the mountainous terrain, where people value the sense of wildness and are expected to be self reliant (Cairngorms National Park Authority, 2007a, p. 49)

There are trailhead markers and signs around urban centres, but very little waymarking in the backcountry. Both Potheary and Morning felt that the system supports the desired experience of mountaineers.

We do not promote excessive way marking in mountain areas. Elsewhere, CNPA fully supports way marking in and around communities, for example. We feel that people should be self-sufficient in the mountains. This is very much in contrast to Switzerland and the French Alps. It's also an aesthetic thing. One of the most common reasons people come to the Cairngorms is for the unspoiled scenery (Potheary, 2011).

It is expected that people need to know how to navigate. There are no painted slashes on the rocks like in the Alps. Some say it is elitist not to have markers...The majority of the climbers here are supportive of the minimum impact ethos and using your own skills to operate safely (Morning, 2011).

Hollinger discussed the fact that on particularly dangerous routes, waymarking has been controversial. He mentioned that where accidents are frequent, subtle waymarking in the form of cairns is appropriate. However he noted, "I don't want to see signposts up a mountainside. To me, one of the skills of being in the mountains is being able to find your own way." His comment is aligned with both the *Control* and *Context* factors of the 7Cs.

The KIs discussed trail management, which is referred to as path maintenance by the CNPA, as a positive management action. The CNP OAS cites the main reasons for conducting regular upland path maintenance are

to protect fragile plant communities, to avoid the visual impact of unsightly erosion scars and to contribute to a high quality experience (Cairngorms National Park Authority, 2007b, p. 30).

Hollinger said that he and his intermediate mountaineering clients are fairly accepting of path maintenance.

5.4.7 Search and Rescue and the Mountaineering Council of Scotland

As far as the CNPA is concerned, Search and Rescue (SAR) is not a factor in management planning for mountaineers. Unlike PC, the CNPA does not have a devoted team of mountain rescue specialists specifically for the park, nor do they plan for visitor safety incidents in their management plan. In the UK, SAR is the responsibility of collaborative teams of police, military and local volunteer mountain rescue, such as the Cairngorm Mountain Rescue Team (Cairngorm Mountain Rescue Team, 2008; Price, 2011). Potheary believed that this system works well because of the strong self-reliance ethic of mountain recreationists, mountaineers in particular: “They will try to get themselves out of situations and it will take a lot to get them to admit to needing help” (Potheary, 2011).

The MCofS is a mountaineering and climbing club devoted to representing, supporting and promoting mountaineering in Scotland. Acting as the “Voice of Scottish Mountaineering” (The Mountaineering Council of Scotland, 2013b), The MCofS strives to advise and influence government policy, to avoid human encroachment on mountain areas, to uphold access rights, to educate mountaineers on best practices and responsible use and to encourage people to participate in mountaineering activities through educational courses and mentorship based programming. With approximately 14,000 members and affiliations with 135 other climbing clubs, The MCofS has a good range of influence and disseminates information via websites, newsletters, presentations, magazines, online videos and television programs (Morning, 2011). Morning notes that her job is to respond to changes in the mountaineering and climbing communities. The MCofS and the CNPA appear to have a good working relationship and collaborate often, as indicated by representatives from both organizations.

5.4.8 Visitor Experience

[Management of] Scotland's mountain areas...should not rely too much on numerical or statistical definitions. To a considerable degree, mountains exist in the eye of the beholder: part of their significance and specialty derives from the ancient relationships – emotional, spiritual, physical – between people and the land. Defining the parameters of Scotland's mountain areas is less important than recognizing and cherishing their importance (Price et al., 2002, p. 12).

This statement recognizes the importance of the relationship between people and the land on which they recreate, an understanding of this connection is key to optimal experience. PC's vision is to reach this goal and the CNP Plan makes visitor experience a priority as well. The CNP Plan makes efforts to recognize the social impacts that can develop if visitor experience is not monitored:

Encourage an optimum flow and spread of visitors across the Park and minimize social and environmental impacts including traffic generated by visitors and conflicts between different forms of recreation (Cairngorms National Park Authority, 2007a, p. 80).

Here *solitude*, one of the key components of *Catharsis*, could be impacted if visitor traffic on trails or routes is not managed. By dispersing mountaineers, they improve the overall visitor experience.

With the use of the contingent valuation method, Price et al. (2002) demonstrate that mountain recreationists select the Cairngorms because of the quality of the recreational experience and the convenient location.

On average, mountain recreationists select a destination on the basis of landscape, wildlife and wilderness, rather than attributes such as challenging climbing, good paths or amenities (Price et al., 2002, p. 56).

They discovered the relative importance of site characteristics in planning which mountain range or area to visit for MCofS members. MCofS members ranked the factors from the most important to least important: scenery, avoiding crowds, challenging climbing, wildlife, travel time, cultural heritage sites, good paths, interpretation, facilities and kids attractions. Many of these factors are similar to the 7Cs. The top four listed above match the 7Cs in the following ways: "scenery" is a component of *Context*, "avoiding crowds", similar to *solitude*, is found in *Catharsis*, "challenging climbing" is evidently a factor in *Challenge*, and wildlife is akin to *wilderness experience (Context)*. The rest of the factors listed appear to be site based, and not based on the intrinsic motivator of mountain recreationists.

More anecdotal evidence of mountaineers' desires and motivations came from the KIs themselves. Potheary said the following of mountaineers in the park:

They want relatively easy, liberal access, they want to park close to routes, they want an unspoiled environment...They like the fact that it is lightly regulated, if at all, [and] that the emphasis is very much on freedom of decision-making and self-sufficiency (Potheary, 2011).

Price, Morning and Potheary said the following when asked about the most important factors in mountaineering to them:

You are out there, trying to be in a place that is different from normal, where you are not connected to the rest of society. You are just living by your wits, basically. I think, for a lot of mountaineers, that is important – to be out there and not have anything but good gear, the best of your knowledge, and you work with that (Price, 2011).

A big part of going to the hills for me is camaraderie. That being said, I also enjoy being by myself on the hills. I really enjoy the challenge of working with the mountain and the elements that are thrown at you, and using all sorts of skills to get yourself up the route or off the hill (Morning, 2011).

I like the capacity to have varied experiences. Sometimes, I want to go do something that challenges me and sometimes I want to do an old classic (Potheary, 2011).

5.4.9 Overall Satisfaction and Strategies for Improvement

In terms of improvement of the CNP Plan, Stockdale & Barker (2009) discuss their concern about the policy-implementation gap that the CNPA might experience because they have too much outside involvement in managing the Park. They recommend that the CNPA adopt “adaptive planning” (Stockdale & Barker, 2009, p. 490). Their concern is that the level of complexity in the CNP Plan may limit flexibility and innovation and that the CNPA will need to be adaptive in order to respond to the many interactions between users, industry and residents in the Park. They recommend a more top-down management style, similar to that of PC.

Morning was content with the strength of the support network for mountaineers in the Cairngorms, consisting of outdoor retailers, interest groups, climbing clubs, the Mountain Weather Information Centre, training centres for Mountain Guides, and good SAR capabilities. All of these relationships are predicated on the maintenance of good communication, which she says will facilitate the mountaineering experience.

Potheary, although satisfied for the most part with the mountaineering realm in CNP, would like to see major improvements in their visitor information centres.

The quality of information that you get at a visitor centre within the NP isn't always consistent...When I've been to Canada, I get fabulous visitor information. For example, here in Grantown, they might be able to tell you about whisky distillery tours or a bus timetable, but they don't have that detailed knowledge about ...climbing opportunities. We are working on that (Pothecary, 2011).

She believed that a visitor centre capable of responding to questions about technical activities like climbing and ski mountaineering will only enhance the experience, especially that of an intermediate mountaineer.

5.5 Current Management and Conditions: The French and Swiss Alps

I have always liked climbing in the Alps despite the fact that it is fairly busy. It wasn't as crowded back then. Here, we always try to protect people from killing themselves. In the Alps, they don't try to control your activity and if you do fall off and kill yourself, it's a free world (Chic Scott, 2011).

The French and Swiss Alps, as a study site, has a management structure most dissimilar to the Mountain Parks. I visited the following climbing hubs: Chamonix and surrounding areas in France, and Leysin, Interlaken, Grindelwald and Zermatt in Switzerland. None of these sites are in a park or an area set aside as requiring special environmental management. There is no cohesive management plan for environmental protection or tourism and recreation, or a management plan specific to mountaineering in these locations (Hanemann, 2000).

Climbing regulations vary greatly across Europe. There are numerous agencies (e.g., the Alpine Convention discussed in section 5.2.2) attempting to create all-inclusive management plans, but most appear to share no common vision for these world-renowned climbing meccas and thus are often working at cross-purposes. Local and regional governments, private alpine clubs, environmental protection agencies and tourism advocacy groups all want a voice in detailing regulations, which naturally leads to inconsistencies in terms of compliance and expectations of climbers. In 1995, guided by the principles of the Alpine Convention, the Alpine Associations of the eight Alpine states joined to form the Club Arc Alpin, a cohesive European Alpine Association with about 2 million members (Club Arc Alpin, 2013). Its mandate is to:

... provide education to foster responsible alpinism which reconciles the interests of mountain sports enthusiasts in European alpine regions with the need for nature conservation and environmental protection in order to promote considerate use and sustainable development of the alpine regions...(Club Arc Alpin, 2006, p. 1)

Despite the Club Arc Alpin's attempts at intervention, restrictions imposed by authorities are more common in the Alps than the self-regulation of climbers in the CNP. Many of the regulations have been imposed without consultation with mountaineers. Hanemann (2000) presents a comprehensive assessment of the sustainable management of climbing areas in Europe, with very few other academic papers addressing this complex situation to the same depth. She acknowledges that authorities are beginning to consult with climbers and the resulting regulations are deemed more acceptable.

Consent of climbers is ...dependent on the scope of the restrictions, the significance of the climbing area and the practicability of the regulations. (Hanemann, 2000, p. xiii).

Due to an apparent lack of academic study on this topic in the Alps, save Hanemann (2000), much of this section is based on the testimony of the KIs, as well as my anecdotal personal experience. I witnessed and experienced the absence of consistency in these areas during field research, crossing La Mer de Glace glacier below Mont Blanc (4810m), climbing beneath the Matterhorn, the Eiger (3970m) and the Jungfrau (4158m), meeting other climbers in alpine huts, visiting the ‘Bureau des Guides’ in Chamonix, conversing with local guides, riding the téléphériques to access the high alpine and on occasion, hiking up from the valley only to be mocked by locals for not taking the téléphériques. Although there is a liberty for mountaineers in the Alps that supports many components of the 7Cs, the effect of non-congruous restrictions on the environment, as well as on the experience, is evident. *Freedom* and *challenge* may be present for mountaineers, but *solitude* and *escape* are not.

5.5.1 Access Rights, Restrictions and Closures

Hanemann (2000) paints a detailed picture of the development of mountaineering in Europe in order to assess the management practices in place today. Mountaineering sites in France and Switzerland have developed differently, and as such, exhibit varying management styles.

“France is seen as the country of endless climbing opportunities” (Hanemann, 2000, p. 48). Before the 1980s, most climbing areas were self-regulated and managed by climbers themselves. As foreign interest in climbing in France grew, visitation increased and climbing areas became busy, resulting in local governments integrating climbing area management in regional planning. Currently, the French Mountaineering and Climbing Association (FFME) and the French Federation of Alpine and Mountain Clubs (FFCAM) are major participants in representation of mountain recreationists (including mountaineers, ski mountaineers, and rock climbers). The organizations are gradually being included in regional planning activities. The FFME states its mandate is to “promote, develop, coordinate and organize the practice of these disciplines” while “ensur[ing] the preservation of the integrity and beauty of nature in the mountains and the protection of the mountain environment and climbing...terrain (Fédération Française de la Montagne et de l’Escalade, 2011, pp. 2-3). With financial support from the French government, the FFME works with various stakeholders to develop climbing area management plans. In the past, the FFME developed regulations for climbers to avoid conflicts

with landowners and established standardized ethical practices for bolting. The latter was not well received by the climbing community in France (Hanemann, 2000).

The FFCAM, comprised of 380 mountain clubs with 88,000 members promotes itself as being the authority for advancement of responsible practice of mountain recreation (Fédération Française des Clubs Alpains et de Montagne, 2013). They maintain 125 alpine huts in France and are a registered environmental conservation body. Private guides and guiding organizations also fund a portion of climbing infrastructure, such as guide's offices (Bureau Des Guides), and often contribute in planning access and regulations for climbers.

Unlike Scotland, France does not have a system of access rights for the backcountry that is protected by law.

Although it is not enshrined in law, climbing in France does not require a permit, but is a specific instance of the "right to come and go" according to the principle that "if something is not forbidden, it is permitted" (Hanemann, 2000, p. 66).

The most common types of restrictions for mountaineers and climbers are based on concern for the environment (such as bird bans), military restriction zones, general public safety and conflicts with private landowners (Hanemann, 2000). Many of these constraints are informal, unofficial, voluntary and/or temporary and are thus confusing and unclear to recreational users. French Prefects may initiate a formal prohibition on climbing if the activity has been deemed disturbing to ecological integrity. Recently, efforts have been made to involve climbing organizations in this process. However, Hanemann's (2000) research indicated that most of the access restrictions have been due to liability considerations and social conflicts such as crowding, human waste and noise pollution, as opposed to conservation. In these cases, it is common for local governments to intervene and rarely are climbing interest groups consulted.

The first and only national park in Switzerland, founded in 1904 in the eastern part of the country, was reserved primarily for nature conservation rather than for recreation. Conflicts between climbers and conservation associations inevitably began and it was not until 1995, when climbing bans were threatened by the local Cantons in the north and east, that attempts at cooperative solutions were made. These conflicts set precedence for conflict resolution of this type in the rest of the country. Interestingly, conflicts in western Switzerland (where most of the Swiss study sites are) do not seem to exist. This inconsistency has been attributed to:

...a difference in mentality: a study of environmental awareness showed that awareness, environmental knowledge and the readiness to change one's behaviour is much less

prominent in western Switzerland than in eastern Switzerland, where the conflict is greater (Hanemann, 2000, p. 47).

The Swiss Alpine Club (SAC), which has 135,000 members in 113 sections and operates 152 alpine huts, has declared itself an organization focused on nature conservation (Swiss Alpine Club, 2013). However, it has been slow to respond to access rights conflicts. There appear to be fewer restrictions on mountaineers in Switzerland than in France – only a handful of bird bans and even fewer flora conservation area closures. The restrictions that are in place are usually official, not voluntary. Compliance with these restrictions tends to depend on:

...whether or not the measures were decided in consultation with climbers. The agreement of the climbers with various regulations depends on the extent of the regulations, the significance of the climbing area affected and the plausibility of the regulation (Hanemann, 2000, p. 72).

In general, climbing organizations in Switzerland are now included in decision-making processes.

The Mountain Guides interviewed in France and Switzerland corroborated much of the above, agreeing that there are few restrictions stopping them from climbing when and where they want. They expressed their dislike for the negligible environmental protections and for outright area closures initiated by local governments. However, when asked if he had been subject to restrictions while guiding in the Alps, Nelhams admitted that the only consistent limiting factors affecting his business were weather and to a certain degree, accommodation in the alpine huts. Even then, he said, the huts on Mont Blanc are constantly overcrowded:

Until recently, people were camping under tables and on chairs in the Goûter Hut. It was rammed full. Now there is someone lower down on the trek asking people if they have a booking at the hut. If not, they are told to stay elsewhere. That limits people somewhat. But if there is no space in the hut, you can bivi outside (Nelhams, 2011).

Hollinger gave examples of government enforced closures of routes on popular peaks and the resultant negative impacts for guides. He detailed the closure and policing of the Goûter route on Mont Blanc due to a series of deadly mountaineering accidents over several consecutive weeks. Further, he cited the closure of a route on the Grande Jorasses (4208m) from the Italian side of the mountain because of apparent instability of a serac. Hollinger had a client for the route during that period and was forced to abandon the climb. He felt that government closures

(based on safety) prevent guides from making their own professional decisions and mountaineers from indulging in the element of risk.

5.5.2 Infrastructure and Facilities

The main forms of mountaineering infrastructure in the Alps discussed by the KIs were alpine huts, uplift and installations. When asked, “what facilitates or detracts from your, or your clients’ experience?” the Mountain Guides overwhelmingly agreed that the Alps do not provide a wilderness experience because of the number of human interventions in the landscape. There are hundreds of huts, both private and public, sleeping from 20 up to 200 mountaineers per night. Many huts are fully catered so that patrons do not have to bring their own gear or food, which several of the Intermediate Mountaineers mentioned they appreciated. Hollinger said of his clients’ reaction to the huts,

[They] are really surprised by the quality of the Swiss huts, good food, good accommodation, good camaraderie. People accept that certain huts are very busy. I have had one or two clients...ask specifically to go somewhere less busy. Some people don’t care and they actually like the fact that the hut is just jammed (Hollinger, 2011).

A few of the Intermediates also mentioned that what the huts detract from the *wilderness experience*, they make up for in *camaraderie*. Scott argued that many Canadians like the European hut experience because it is different from the more rustic Canadian huts, despite being quite busy. I can attest to this: a few days after having interviewed Hollinger in Chamonix, I went on a mountaineering trip to climb peaks in the Mont Blanc area. While staying at the Rifugio Torino, a private Italian alpine hut, I spotted Hollinger walking up the approach trail with a client. We enjoyed beers together and chatted about my project and his client’s experience. It was a great way to collect field data.

Nelhams mentioned that while his clients do not appear to mind paying to stay in the huts, he believes that the hut owners should attempt to reinvest more money in environmental updates. He was dismayed by the fact that the size and capacity of most huts is not determined by their environmental carrying capacity, but rather by brute building ability.

Uplift systems, including gondolas, téléphériques, tramways, cable cars and other mechanized methods used to travel from valley bottom to the high alpine are plentiful in the Alps. Most climbing hubs have many forms of uplift that are frequently used by mountaineers. In the Chamonix Mont Blanc area, there are eight forms of uplift (ski chairlifts not included) including the famous Téléphérique d’Aiguille du Midi (3842m). Leysin, Switzerland, a

significantly smaller town than Chamonix, has its own cable car and a myriad of trails to access the alpine. To access mountaineering routes on the Eiger and the Jungfrau from Grindelwald, a cog railway leads to an intermediate railway station below the Eiger. This connects to another nine kilometer rail line, to the highest station in Europe atop the Jungfrau, via tunnels in the mountain itself. Hollinger said that his clients really appreciated the uplift because it gave them more mountaineering time, rather than approach hiking time.

I've never encountered a client who point-blank refused to go to Chamonix because there are so many lifts. At the end of the day, people usually want to go climbing and if they have to compromise their experience for the sake of [being out there and climbing], then they usually will. I wouldn't want to take down all the lifts in Chamonix. I'm really appreciative of the lifts but there are plenty of places I wouldn't want to see them put up (Hollinger, 2011).

From a guide's perspective however, he said that the immediate, easy access translates to crowded, unpleasant routes.

While in Zermatt, I wanted to climb a lesser peak called the Breithorn (4164m). The route is frequently ascended using a cable car, which takes users to within 281 vertical meters of the summit. Wanting to climb the mountain without the assistance of uplift, I visited the local guides' office to ask for approach trail information. The guides were curious as to why I wanted to hike up from the valley bottom when there was a perfectly good lift that went (virtually) to the top. I explained that, as a Canadian, I was accustomed to climbing without the use of such infrastructure and they were no longer surprised – they said that a lot of Canadian mountaineers came in to ask the same question.

Installations refer to bridges, tunnels, ladders and ropes that have been placed on mountaineering routes to aid climbers. They are plentiful in the Alps. The KIs' reactions to these fittings was mixed. Hollinger described his dilemma:

There is now a proposal...to dig a tunnel underneath the Grand Couloir [on Mont Blanc], so that you don't have to cross the couloir and run the risk of getting clobbered by falling rocks. The argument [for it] is that they built cable cars up the other side [of the mountain] so putting in a few installations to help you on this side is not a big deal. There's a dilemma as a guide...it frustrates me that so many non-climbers think that they should climb Mont Blanc with no experience and no respect. However, I'm not going to not go through a tunnel if it's going to make it a lot safer for me in my professional capacity. You can appreciate the hypocrisy. Either way, I'd be going against my own principles in some way or another (Hollinger, 2011).

These installations can make routes safer for mountaineers. However, Hollinger admitted that they can encourage climbers with little or no experience to attempt routes beyond their abilities by reducing the element of *Challenge*.

The main facilities in the Alps discussed by KIs were human waste facilities and information services, specifically the guides' offices. The washrooms in many of the alpine huts did not impress Nelhams. He had the following to say about the facilities at a popular hut on the main route up Mont Blanc:

At the Goûter hut, you are still going to the toilet down a cliff. There's a helicopter that goes in every other day with food, so why aren't they taking rubbish and toilet stuff away?! It's very expensive to stay there...so they should be making the effort to put that money back [into the facilities]. Maybe 20 years ago, it was okay to be pooing over a cliff but not today, and not with the sorts of numbers we're talking about. It's embarrassing. It's embarrassing for the clients because they're more [concerned for] the environment these days...I'm really happy to check into Parks and take a waste bottle with me...It keeps the mountains clean. It's important that restrictions are put in place now because the mountains are getting busier and busier (Nelhams, 2011).

Nelhams and Hollinger discussed that although some of their clients noticed some of the archaic, non-environmentally friendly toilet systems, it did not prevent them from continuing to climb in the area. One intermediate was particularly disgusted by the lack of waste management facilities in the Alps. Nelhams mentioned that guides should be partially responsible for informing their clients about environmental issues associated with mountaineering, including the importance of waste management.

Le Bureau des Guides in Chamonix is a world-renowned place of congregation for mountaineers. There are local guides on scene, armed with maps, conditions reports, expert advice and climbing tales to share. It is very much like a visitor's information centre one might expect to see in Banff or Jasper, but highly tailored to the needs of the climber. The history of mountaineering, its heroes and its failures, are woven into the present day information, so much so that it seems a route is inseparable from the personalities who have climbed it before. Statham, having spent much time in European guides' offices, said that the addition of historical features into the pre-trip planning stages only enhances the experience. Martel agreed with him. In some cases, guides are available for hire but these centres are not designed solely for that purpose. The Zermatt Alpin Centre appeared to be slightly more interested in hiring out its guides than providing climbers with information, but the atmosphere and effect are the same – a

‘hub’ for mountaineers to share the real, up to date information and a place to envision and consider routes one has yet to tackle. The KIs indicated that the Guides’ Office speaks to several components of the 7Cs including *Creative Opportunities* (*historical connection, captures imagination*), *Community* (*recognition and friendships*), *Control* (*self-reliance*), and *Challenge* (*excitement*).



Figure 23. Bureau des Guides, Chamonix, France
Source: Louison (2011)

5.5.3 Overall Satisfaction and Strategies for Improvement

The KIs and Intermediates who discussed conditions for the mountaineering experience in the French and Swiss Alps came to similar conclusions: they loved the access, infrastructure, *freedom*, beautiful *scenery* and *challenging* climbing but disliked the crowds, lack of solitude and apparent disregard for ecological integrity.

My wife and I did a ski mountaineering trip out of Zermatt...What made it spectacular was the combination of beautiful setting, challenging route, accessibility, really good food in the hut after. I’m not a kid anymore; I like sleeping in a real bed. If I climb [in the Rockies], I’m carrying a SPOT [device], I’m sleeping on the ground, I’m responsible for my own safety. If I climb in Europe however, I know it’s going to be crowded but it’s going to be civilized, with draft beer and 3 different choices of wine (Fedyna, 2011).

I enjoy that you are with similar people that you meet in the huts. You can expect that there will be people with similar attitudes. [They] share their experiences and their new

plans and ideas. You can spend all night drinking and talking about the climbs...But Mont Blanc is way too crowded and I never want to go there again. That is not what I am looking for in the mountains (Mazachek, 2011).

As illustrated by Mazachek's comment above, several of the Intermediates said they had loved climbing in the Alps, but despite all the positives the mountaineering experience there had to offer, they would not go back.

The sole reason that I wouldn't go back to the Alps to mountaineer [is] the crowds on the easy alpine routes. It's due to the lack of solitude, and also the objective danger of other people falling on you, dropping things on you. But I liked going there the first time; to climb things that I had only ever...dreamed about (Tindal, 2011).

The Mountain Guides felt that the majority of their clients seem to accept the mountaineering experience the Alps provide and would not want to change it.

[My clients] mention the experience in the huts, the food provided on the trip. The only time they talk about busy routes is when they've experienced something extreme like the Matterhorn or Mont Blanc – people are standing on each other's hands! (Nelhams, 2011)

Despite their clients apparent indifference towards the lack of management of mountaineering in the Alps, the Mountain Guides themselves were determined that something should be done to reduce crowding and environmental destruction associated with the recreation.

These honey pot areas need to be better managed, numbers have to be reduced as well as reduce the impact on the environment. Other [more remote] areas need to be less restricted to allow us to educate our clients about what the rest of the [Alps] are all about. The cantons should limit numbers at huts... The [alpine clubs] could employ more guides in huts to educate people about their environments. They could have more of a role in providing sustainable services, like locally sourced food for the huts...The education has got to come from guides, alpine clubs and the various cantons (Nelhams, 2011).

Hanemann (2000) argues that recreation is associated with hedonism and as such, sustainable regulation of recreational activities is a societal problem. As outlined, the main tools for governments in the Alps to control mountaineering access are bans, closures and haphazard restrictions. "These cannot, however, provide either an ultimate or satisfactory solution" (Hanemann, 2000, p. 41). Shindler and Shelby (1993) state that visitors may be more apt to accept management actions if they believe that they provide the conditions for their optimal experience. One of Hanemann's recommendations for the sustainable management of climbing in Europe is aligned with Nelhams' statement above:

The character of climbing as a free sport is to be preserved. In this spirit, regulations should be confined to environmental necessity and should mainly be implemented in busy climbing areas (Hanemann, 2000, p. 127).

She also suggests that climbing ethics should play a role in the development and management of climbing sites; that, as Nelhams advocated, guides, alpine clubs and governments should collaborate to ensure mountaineers are satisfied with the regulations and therefore comply with them. Finally, she describes the International Mountaineering and Climbing Federation's (UIAA) solution for the conflict inherent to the provision of quality experiences while maintaining ecological integrity:

The UIAA sees a solution in a process of integration – where mountaineers actively contribute to the conservation of the mountain areas and support the local population. This includes, for example, supporting agreements for the conservation of the mountain environment, where these take into account the mountaineering interests, as well as the integration of environmental education into training programs for mountain guide (Hanemann, 2000, p. 93).

5.6 Role of Environmental Ethics in the Mountaineering Experience

The interview data provided evidence from parks managers, mountaineering interest groups and authorities on tourism indicating that ecological integrity plays a role in the mountaineering experience and that to involve mountaineers in the process of maintaining ecosystem health is to develop advocates for the cause. The CNPA management plan specifies that one of the Park's strategic objectives for sustainable tourism is to:

Maintain a high quality environment by encouraging sound environmental management by all those involved in tourism in the Park (Cairngorms National Park Authority, 2007a, p. 79).

The UIAA's Guidelines for Sustainable Mountain Tourism dictate that climbing communities and organizations should encourage environmental awareness to enhance the mountaineering experience and improve the state of the mountains for all users (UIAA Access and Conservation Commission, 2005). Bunyan recommended that although enforcing environmental regulations takes precedence for PC, other parties (e.g., mountain guides and interest groups) should also encourage environmental ethics among mountaineers.

We would expect guides, as leaders, to be compliant with park regulations; to be more environmentally sensitive and aware (Bunyan, 2011).

The Mountain Guides and Interest Groups recognized that they play a role in this element of the experience.

A theme running through all of our courses is an element of environmental awareness and operating in a manner that doesn't detract from the experience of others on the mountain. The environmental side is very important to [the MCofS]. [Mountaineers] are switched on and want to understand what they are seeing (Morning, 2011).

We have [clients] carry out their waste. We have a bag system. That is not required by Parks...but it is [part of] our environmental policy (Stark, 2012).

Rees, representing the ACC, mentioned that although the club tries to encourage responsible environmental practices among its members, she believes that many people inform themselves of these details via media. She also mentioned,

We do deal with these [environmental issues] at times in the club, but we are more adventure geeks who want adrenaline rushes as opposed to science (Rees, 2011).

Ledwidge echoed this comment with, "climbers like to think they are environmentally considerate, but I don't think most of them are" (Ledwidge, 2011). However, these remarks do not appear to be entirely supported by the rest of the KIs or Intermediates, as most of them expressed an interest in their impact on the environment and a desire to observe best practices.

[The environment] is the first thing I think about! I absolutely want to know how I am affecting the environment. But I don't always carry out my waste. If I had a proper container, maybe it would be easier (Martel, 2012).

I liked the waste management plan in the Tetons. I didn't mind carrying out my own waste; it facilitated my experience. If Parks [Canada] said "Here is your baggie and please carry out your waste", I would do it (Fedyna, 2011).

Some of the environmental practices, in the old days, were terrible. I couldn't even believe that the human waste from some of the huts flowed right on to the glaciers and into the rivers. This affected me a lot (Scott, 2011).

Further such statements were made by the Intermediates with respect to their dislike of poor environmental practices in huts in the Alps. There was only one Intermediate who specifically indicated that the environment was not one of his concerns when mountaineering and that the footprint of alpine huts did not bother him.

5.7 Roles of Communication, Information and Education in Management

In Chapter 2, Bright (1997), Manning (2003) and Martin's (2009) views on the role of transparent communication and information/education campaigns in recreation management were examined. The KIs and Intermediates reinforced the use of these as valuable aids to and forms of management. They were not prompted to discuss them outright but rather, their comments evolved in response to the questions "what facilitates and detracts from your mountaineering experience?" and "if you were the land manager, how would you change things?" For the purpose of this research, communication refers to efforts made by park management to convey rules to visitors and encourage compliance. Information campaigns refer to the sharing of relevant information (route conditions, avalanche and weather forecasts) with mountaineers by parks management, whereas education campaigns aim to cultivate an understanding of responsible practices and recreational impacts among mountaineers.

The majority of the Intermediates, and several of the KIs, discussed their appreciation of PC's clear communication methods, which enhance public comprehension of rules and restrictions. It would appear that the most successful messages influencing the Intermediates were the simplest, with substantive explanations for restrictions. Although most of the Intermediates preferred management actions that did not entirely prohibit their climbing, they were willing to comply with regulations and climb elsewhere if closures and restrictions were well explained and easy to understand. Communication is key in the following 7Cs: *Control* and *Creative Opportunities*.

If Parks [Canada] explained why they were closing something, especially a temporary closure, it would be more helpful. I would like to have more information about these areas to help understand why they [are] restricted or closed. When they are closed, you'll often see a big sign that indicates they are closed, but they are full of "Parks speak" and bureaucratic information. We need real information that is easily understood (Tindal, 2011).

I like the rules to be straightforward, clear, equally administered to everybody...and transparent. My preference is laissez-faire [management] and more libertarian, but as long as the rules are upfront and clear, then cool (Fedyna, 2011).

I certainly understand why [restrictions] occur. But it's just hard to always know what and when they are going on. We've been caught off guard before. More communication from Parks [Canada] would be welcome (Stark, 2012).

Parks managers were more inclined to discuss their potential improvements in information/education targeting mountaineers. When asked, “what are some of the main considerations when facilitating recreational mountaineering?” managers said that the enhancement of visitor knowledge was important in order to achieve parks’ management goals. The CNP Plan states that managers should,

Ensure that visitors to the CNP are aware of the range of opportunities, places to visit and things to do throughout the Park and appreciate and respect its special qualities...[this is] important for managing tourism and encouraging responsible behaviour and repeat visits (Cairngorms National Park Authority, 2007a, p. 80).

Reiterating the CNP Plan’s above assertion, Potheary stated,

To influence people and help people behave responsibly within a mountain context...this is obviously not done through regulation of numbers or access or permits. It’s [done] through education (Potheary, 2011).

Ledwidge ceded that education is important but the user ultimately determines its value:

[Promoting] Responsible Use is very much our philosophy as well. We provide all the information we can, but it’s up to you to do it safely. We are not here to sanitize the experience (Ledwidge, 2011).

Several of the interviewees discussed the fact that if mountaineers were introduced to all the facets of the mountaineering experience, they might be more inclined to participate, practice their sport responsibly and become stewards for their Parks. Thus education about the intrinsic elements of the experience can be an effective management action. Scott defined the ‘full mountaineering experience’ as:

Educat[ing] people about the joy of it all. There is nothing more invigorating than walking along a high mountain ridge and being in control, and the wind is blowing...and there is a sea of mountains surrounding you...you feel like a god walking a mountain ridge. If we are better educated about the type of experiences we can have, we have better experiences (Scott, 2011).

Nelhams discussed the importance of the Mountain Guide’s role in educating their clients, stating that it should not always be left up to parks management, especially in the Alps.

As a guide, I would like to try to educate [clients] about the complete experience of mountaineering and climbing...the history of some routes, the flora and fauna on these routes. I have to manage their expectations but I try to educate them about other, less pressured climbing areas. I would like to try to hook people in for all those reasons. I’d like clients to play more of a role in their experience, rather than just clipping on to the end of the rope and surviving (Nelhams, 2011).

When asked if PC makes any efforts to educate visitors about these elements of the experience or publicizes the range of opportunities available to mountaineers, Ledwidge stated:

We do this, but not in a structured way...People who climb here understand their activities very well. They don't need to be told. Usually we [just] provide information on conditions. We try to educate the other managers. They are the ones who need education [about mountaineering], not the public. Most of our managers wouldn't even know what the MCRs are (Ledwidge, 2011).

In response to a comment by a PC staff that mountaineers “are not really on the radar for Parks” (Dubois, 2011), and that “promoting the backcountry is not a priority”, Martel had much to say:

I think it is foolish for us not to be on their radar. Mountaineering was the first activity in Banff NP. There are a ton of mountaineers out there. You want more visitors in the Park? What do we have here, in these Parks; what experiences are available here that aren't available anywhere else in the world? Wilderness and glacier mountaineering. These are the experiences we have to sell. Mountaineers, if they are happy, they will go out and spend money [in the Parks]...They have good money and are happy to spend it. I think it's Parks' job to find those climbers, educate them and [communicate] these opportunities. If Parks isn't paying attention to mountaineers, they are missing the boat! (Martel, 2012).

Although Marion & Reid (2007)'s study could not prove definitively that information initiatives improve visitor experiences, the Intermediates and several of the KIs felt that these programs could indeed facilitate the mountaineering experience.

The Mountain Conditions Report (MCR) is the best information tool that Parks has with the mountaineering community. Every so often...Banff Visitor Safety Specialists will publish something. Everyone I know who climbs reads that daily, particularly when conditions aren't great (Tindal, 2011).

I don't mind sitting through the information presentation at Rogers Pass to get my ski pass because you get fantastic beta from the process (Fedyna, 2011).

To be honest, probably the most important factor for me other than good weather, is good information: where to go, how to get up [the mountain]...Having good information so that you can work out what you can do in the time you have available, given your capabilities...to me, that's the most important (Price, 2011).

It has been recommended that multiple types of media be used to relay information, improving comprehension and retention and encouraging a reduction in users' impacts (Bright, 1994; Marion & Reid, 2007). Statham showed that PC is making an effort, but Bunyan felt that the attempts to reach out to the mountaineering community were not sufficient.

Media is a big partner of ours [in educating] mountaineers. Guidebooks, brochures. These days, we have a Facebook page [Parks Mountain Safety] which is growing like crazy. We are really trying to push the social media now and we are getting lots of people signing up daily. We are posting photos and lots of information about avalanches lately (Statham, 2011).

I think one of the things that we haven't done well with the climbing community is educate them about their impacts. I don't think we reach out to [them] at all (Bunyan, 2011).

The MCoFS also supported the use of multimedia (including a magazine, websites, various outdoor newsletters, online videos, television programs, in tandem with direct contact during training courses and lectures) to share information with their members and educate them about Responsible Use (Morning, 2011). Stark agreed that information and education are key components of the experience but, as with communication, they should be targeted and focused.

You can have all kinds of information and not do the right thing with it. In some cases, there is so much information that it is hard to sort through to find what is actually pertinent. We've seen Parks Canada take the lead on avalanche reports this year and [they] are very precise. Rather than getting half a page of text on conditions, you get bullet conditions that are clear. I like that much more because there is not a whole lot of background noise (Stark, 2012).

Once Walker described her 'Dashboard' concept, the idea was presented to interview participants during subsequent interviews to determine if there was an appetite for it. There was resounding support for the idea by both Intermediates and some KIs because of the "one-stop-shop" nature of the information provided.

The guides' offices in the Alps feature both information and education campaigns. After I visited the Bureau Des Guides in Chamonix, observing numerous climbers interact with the guides on site, I proposed the concept of having similar offices in the Mountain Parks to interview participants to determine its viability. Currently, PC visitor information centres are not necessarily equipped to answer technical questions about mountaineering and climbing. In Banff NP, visitors with questions of this nature are referred to the Warden's office, where they may speak with the Visitor Safety Specialists, if available. Many of the Intermediates said that they would appreciate the chance to discuss safety details with the rescuers on a more regular basis. All of the Intermediates overwhelmingly agreed that a guide's office in Banff or Jasper would support their desired experience and most were emphatic about the prospect. Statham said the following about the notion:

If there was a centre in Banff that was developed around mountaineering and there were a bunch of guides working in there...supplemented with Parks Canada staff, to give really good quality information on mountain routes, you can bet that there would be people all over it! I'm sure, just like in Chamonix, that's where the climbers would go...I think it would be a great option...it would be fantastic! But remember that the difference between Zermatt and Chamonix and here is like night and day. There are millions of people climbing mountains there, but not so many here (Statham, 2011).

5.8 Role of Collaboration in Management

KIs and Intermediates were not asked about the role of collaboration in management directly. Instead, their comments have been grouped together based on their responses to “what facilitates and detracts from your mountaineering experience?” and “if you were the land manager, how would you change things?” For the purpose of this research, collaboration refers to the coordinated efforts of a variety of organizations to improve the mountaineering experience and ensure it is undertaken in an ethical manner. The KIs mentioned collaboration in management on a number of occasions, and that they felt efforts should be made to enhance cooperation between PC, the ACMG, the ACC and local guiding agencies. The relationship between CNP and its various stakeholders exhibits the type of collaboration the KIs admired. Potheary describes the collaborative management in CNP as “winning the hearts and minds of land managers and communities” and states that if organizations work together to promote responsible behaviour, it can influence how visitors behave (Potheary, 2011). Bunyan states that more collaboration with these interested organizations “would be very valuable” (Bunyan, 2011) for PC. Statham agreed, stating the following:

There is a huge benefit to us to work with the ACC and they are always offering us poster space in their huts and I'm sure they send out [our details] on their mailing lists. But we haven't really used them for that for a while now (Statham, 2011).

5.9 Summary

Table 5.2, 5.3, and 5.4 show the current management actions and conditions for mountaineers at the three study sites and how each either facilitates (+), or detracts (-) from, the optimal experience. The tables' implications will be discussed in the following chapter.

Table 5.2 Current Conditions in the Mountain Parks and the 7Cs

Mountain Parks Current Conditions and Management Actions	7Cs of the Mountaineering Experience																												
	CHALLENGE					CONTROL				COMMUNITY			CONTEXT					CREATIVE OPPORTUNITIES				CATHARSIS				CHRYSLIS			
	Mental/Physical challenge	Excitement, Exhilaration, Adventure, Happiness	Physical act, Skill Mastery, Technical Difficulty	Accomplishment, Fulfillment, Reward	Deprivation, Hardship Primitiveness	Sense of control, Self-reliance, Independence, Lack of rules/regs	Unknown, Vulnerability Uncertainty	Focus, Engagement, Flow	Consequences, Commitment, Danger, Risk, Mortality, Fear	Sense of Community, Friendship, Camaraderie, Sharing	Uniqueness	Elevation gain, tick lists	Recognition, Competition	Wilderness experience, Engage with landscape	Scenery, Beauty, Geography	Remoteness	Peace, Tranquility	Variety	Problem solving, Complexity, Decision-making, Learning	Captures imagination, Curiosity, Stimulating	Discovery, Exploration	Historical connection	Mindlessness, Simplification	Relief, Relaxation, Escape	Liberty, Freedom	Solitude	Therapeutic, Spiritual connection, Self-discovery	Confidence, Self-esteem, sense of identification	Affirmation, enhancement of life
Rogers Pass Permit System				+		+		+	+			+		+				+	+		+					-			
Banff NP Party-size Restrictions			-			-		-		-				-					-					-	-	-			
Jasper NP Area and Tent Quotas						-	-							+			+							+	-	+			
Voluntary Area Closures						+								+	+			+	+		+				+	+			
Seasonal Closures and Restrictions			-			-		-						+	+				-		-				-				
Entrance and Backcountry Fees						-																			-				
ACC Alpine Huts					-					+			+	+								+		+				+	
Signage	-	-				-								-	-	-			-		-								
Waste Facilities														+	+	-													
Trail Management		-	-											-	+						-								
PC VS Online Info						+				+		+						+	+	+	+								
No Motorized Access						-								+	+	+	+				-				-	+			

Table 5.3 Current Conditions in Cairngorms National Park and the 7Cs

Cairngorms National Park Current Conditions and Management Actions	7Cs of the Mountaineering Experience																												
	CHALLENGE					CONTROL				COMMUNITY			CONTEXT					CREATIVE OPPORTUNITIES				CATHARSIS				CHRYSLIS			
	Mental/Physical challenge	Excitement, Exhilaration, Adventure, Happiness	Physical act, Skill Mastery, Technical Difficulty	Accomplishment, Fulfillment, Reward	Deprivation, Hardship Primitiveness	Sense of control, Self-reliance, Independence, Self-sufficiency	Unknown, Vulnerability Uncertainty	Focus, Engagement, Flow	Consequences, Commitment, Danger, Risk, Mortality, Fear	Friendship, Camaraderie, Sharing, Teamwork	Uniqueness	Elevation gain, tick lists	Recognition, Competition	Wilderness experience, Engage with landscape	Scenery, Beauty, Geography	Remoteness	Peace, Tranquility	Variety	Problem solving, Complexity, Decision-making, Learning	Captures imagination, Curiosity, Stimulating	Discovery, Exploration	Historical connection	Mindlessness, Simplification	Relief, Relaxation, Escape	Liberty, Freedom	Solitude	Therapeutic, Spiritual connection, Self-discovery	Confidence, Self-esteem, sense of Identification	Affirmation, enhancement of life
Outdoor Access Forum						+				+	+								+										
Core Paths Plan										+			+	+				+	+		+								
Long Walk-in	+				+	-								+	+	+		+	-		+					-	+		
Few Closures/ Restrictions						+	+	+											+							+			
Voluntary Bird Bans						+								+	+				+							-			
Closed-system Uplift (Funicular)		-				-	-		-					-	+	-			+		-					-			
Promotion of Responsible Use		+		+		+	+		+	+				+	+				+		+					+			
Mountain Bothies					+					+			+			+						+						+	
Poo Project					+									+	+	+									+	+			
Waymarking (limited)	-	-				-								-	-	-					-								
Path Maintenance		-	-											-	+						-								
MCoFS Mentorship			+				+			+		+	+					+	+	+	+							+	

Table 5.4 Current Conditions in the French and Swiss Alps and the 7Cs

French and Swiss Alps Current Conditions and Management Actions	7Cs of the Mountaineering Experience																												
	CHALLENGE					CONTROL			COMMUNITY				CONTEXT					CREATIVE OPPORTUNITIES				CATHARSIS				CHRYSLIS			
	Mental/Physical challenge	Excitement, Exhilaration, Adventure, Happiness	Physical act, Skill Mastery, Technical Difficulty	Accomplishment, Fulfillment, Reward	Deprivation, Hardship Primitiveness	Sense of control, Self-reliance, Independence, Self-sufficiency	Unknown, Vulnerability Uncertainty	Focus, Engagement, Flow	Consequences, Commitment, Danger, Risk, Mortality, Fear	Friendship, Camaraderie, Sharing, Teamwork	Uniqueness	Elevation gain, tick lists	Recognition, Competition	Wilderness experience, Engage with landscape	Scenery, Beauty, Geography	Remoteness	Peace, Tranquility	Variety	Problem solving, Complexity, Decision-making, Learning	Captures imagination, Curiosity, Stimulating	Discovery, Exploration	Historical connection	Mindlessness, Simplification	Relief, Relaxation, Escape	Liberty, Freedom	Solitude	Therapeutic, Spiritual connection, Self-discovery	Confidence, Self-esteem, sense of Identification	Affirmation, enhancement of life
Few Rules, Restrictions, Permits		+				+	+	+						-					+		+			-	+	-			
Inclusion in Rec. Planning (limited)						+				+			+						+										
Lack of Sustainable Waste Facilities														-	-	-								-		-			
Government Enforced Closures	-	-	-	-		-	-												-	-	-				-				
Alpine Huts (Public and private)					-	-				+		+	+	-		-	-					+		-		-		+	
No Access Quotas						+						+		-					+		+			-	+	-			
Signage (paint slashes on rocks)	-	-				-								-	-	-			-		-								
Uplift (téléphériques etc.)	-		-	+			-		-			+		-	-	-		+	-		-				+	-			
Installations (tunnels etc.)	-	-	-	+		-	-		-			+		-	-	-		+	-		-					-			
Guides' Office		+				+				+	+	+	+					+	+	+	+	+					+		
Climbing History in Culture, Books																				+		+							

Chapter 6 Discussion and Recommendations

As stated in the organization's mandate, one of PC's priorities is to facilitate high quality recreational experiences; to connect visitors to the landscape and to encourage repeat visitation. Chapter 2 demonstrated that effective management of such environs is predicated on meaningful understanding of the users' motivations, expectations, preferences and resultant behaviours (Burdge & Field, 1988; Hendee et al., 1990; Manfredo et al., 2004; Manning, 2011; Monz et al., 2005). The literature review and the results of the research showed that only a select few researchers have investigated the motives of mountaineers and how parks and land management affects their experiences. However, even less substantive research has been conducted to determine which management actions would be best recommended to parks managers in order to provide for these experiences. Some land managers admit to not knowing what the mountaineering experience entails, as they do not have the time or resources to make this group of recreationists a priority. This research has attempted to bridge these knowledge gaps, by examining narrative mountaineering literature and conducting research in three study sites: PC's Mountain Parks, CNP in the Scottish Highlands and several mountaineering locales in the French and Swiss Alps. The main findings include: 1) a list of the motives for mountaineering, *The 7Cs of the Mountaineering Experience*, 2) a comprehensive explanation of how management actions affect the opinions, experiences and behaviours of intermediate mountaineers and 3) recommendations for the provision of the mountaineering experience in Canada's Mountain Parks.

It would appear that, for the most part, the Mountain Parks adequately provide for the 7Cs and the optimal mountaineering experience desired by intermediates. However, the disparity between the practices and attitudes of intermediate mountaineers and PC managers, with regard to acceptable management actions, has numerous implications and affords various opportunities for enhancement of the experience within the limitations of the PC mandate. Examination of CNP and the study sites in the Alps has also led to several recommendations which, with slight alteration, could be effective in the Mountain Parks. Following is a detailed validation and discussion of the evaluative criteria and a presentation of recommendations with resultant implications.

6.1 Validation of the 7Cs

This section will discuss the extent to which the 7Cs evaluative framework encapsulates the interviewees' desired mountaineering experience, as determined in the KI interviews. Differences between the 7Cs, academic literature, and the KI interview data will be examined. Most of the 7Cs initially discovered in the narrative and academic reviews were reiterated in the interviews. However, as an evaluative framework, the 7Cs model was designed to be flexible to adaptation throughout the research process. Based on the following observations, alterations to the 7Cs will be presented in Table 6.1.

6.1.1 Challenge

Ewert's (1994) study on the motives for mountaineering showed that factors related to *Challenge*, including exhilaration, accomplishment, excitement and personal testing, played a significant role in the experience and were rated as some of the most important factors for intermediates. Although the KI interviews indicated that *Challenge* is important, it was not mentioned as frequently, nor with as much detail as some of the other 7Cs. The discrepancy between my findings and Ewert's studies could be explained by a combination of academic literature and speculation. Haas et al. (1980) and Manning (2011) categorize challenge as an initial motivation to participate in recreation, as opposed to a benefit of participation, which is generally gained post-trip (e.g., enhanced self-esteem) (Table 1.1). In Ewert's (1994) study, survey data were collected immediately following the completion of climbers' expeditions in Denali NP. My KI interviews were conducted long after the participants had experienced their best and worst mountaineering moments; most of which were described as having happened many years ago. The problem with this "post-hoc" approach to analysis is that it relies on memory and is possibly subject to inaccuracy when compared to measurements taken during, or shortly after the experience (Ewert, 1994; Stewart & Hull, 1992). Because of a significant amount of time lapse between the mountaineering trip and the data collection, it is reasonable to deduce that the KIs' recollections of the post-trip benefits of their participation (e.g., *self-confidence*, *relaxation* etc.) may be more accurate than their attempts at recalling their initial motivations (e.g., *challenge*, *excitement* etc.).

Ewert (1993) suggests another possibility for this discrepancy. Generally, the goal in mountain climbing is to reach the summit which will, in turn, generate feelings of excitement and accomplishment (both components of the 7Cs *Challenge* factor). If, however, one is

unsuccessful at reaching the summit, those factors may not have been as prevalent in one's description of the experience. "Failing to reach the summit would create the need to place greater importance on the other motives and allow individuals to maximize their "success" as measured by their reasons for being on the trip" (Ewert, 1993, p. 346). Therefore, one may have indicated that *Catharsis* and *Community* were the most predominant motivational factors on an "unsuccessful" trip. The KIs were asked to discuss both negative and positive mountaineering trips. Many of their negative trip stories described failed summit attempts, poor conditions and bad weather. Thus, perhaps the frequency of the *Challenge* factors appears diminished in comparison with other 7Cs.

Neither of these theories however, is supported by the fact that both the narrative literature and Scott's interview data discussed *Challenge* a great deal, ranking it one of the top factors based on frequency of theme appearance. The authors of the mountaineering narratives and Scott's interviewees were recalling details of their trips long after they had occurred and still rated *Challenge* as very important, based on the frequency of how often it was mentioned. My speculation is that because both the authors and interviewees self-identified as expert climbers, they had to continue to tackle more challenging objectives in order to experience any of the 7Cs factors. Ewert (1994) shows that the most important factor for experts is *Challenge*.

PC staff did not discuss *Challenge* very often except to mention that it is an important element in the experience. Mountain Guides, SMEs, Interest Groups and Intermediates mentioned that it was important but did not describe many situations in which parks management affected that aspect of their experience. Tables 5.2, 5.3 and 5.4 show that very few of the management actions in any of the study sites have either a positive or negative effect on *Challenge*. *Challenge* appears to be very personal and is based on an individual's skill level. Perhaps PC staff were aware of this and knew that they cannot do much to facilitate it, except to offer a multitude of mountaineering sites for different skill levels.

6.1.2 Control

Control was the most passionately discussed of the 7Cs, when KIs were asked about parks management actions and their effects on the mountaineering experience. Scott's interview data ranked *Control* as having the lowest level of importance. The narrative authors presented it as the most important factor but mostly due to their focus on *self-reliance*, *experiencing the unknown* and *vulnerability*. Ewert (1994, 1985) and Loewenstein (1999) documented its value in

the experience but did not delve into in as fervidly as the KIs. This can be explained by the fact that the interviewees were asked specific questions about how management negatively and positively affected their experiences. Parks management generally controls visitors in some fashion. Having people report how management restricts their activities introduces this cognitive factor into their measure of management's success at providing their optimal experience (Shelby et al., 1983). Thus, they are more inclined to discuss their dislike of management and the importance of a *sense of control*. "There is nothing mystical about the way we are controlled and over-governed by rules and systems...Sure, [climbing] is an escape, but it's an escape from the control of others" (Mitchell, 1988, p. 49).

The Mountain Guides, Interest Groups and SMEs discussed *Control* more than the Intermediates. This is possibly due to the level of specialization of the interview participants, as mountaineers' motivations are contingent on these levels of experience (Ewert, 1985). Specialization in recreation has often been used as a guideline for managers to help explain attitudes and behaviours towards management actions (Bryan, 1977; Merrill & Graefe, 1997). As mountaineers become more highly skilled, they experience more intrinsic motivational factors, such as *flow*, which lead to a desire for more specific physical and managerial attributes. Because the Mountain Guides, Interest Group representatives and SMEs were generally more experienced than the Intermediates, it is plausible to assume that they would be inclined to discuss elements of *Control* such as *flow* and *extreme focus* more often. The inclusion of *flow*, as an element of *Control* in the 7Cs model, is supported by academic literature (Csikszentmihalyi, 1990; Jackson & Csikszentmihalyi, 1999; Mitchell, 1988) and several Intermediate participants also cited it. Based on the intrinsic nature of *extreme focus*, *engagement* and *flow* it is reasonable that these are highly personal elements of the experience and as such, are not easily influenced by external management actions (Tables 5.2, 5.3, 5.4).

The Intermediates discussed how they wished that they could have more interaction with the PC VS personnel. The type of information provided by the VS staff generally improves the intermediate's experience by appealing to their desire for *independence* and *self-reliance*. Information on routes, conditions and safety practices contributes to making mountaineers feel that they have control over their actions. VS staff interaction with mountaineers would foster a supportive learning environment, as confirmed by the MCofS. The VS staff reciprocated, indicating their wish for more time to interact with the public. When PC VE staff were asked

about enabling interaction between VS and mountaineers, some felt it would not be beneficial and would be difficult to get mountaineers interested. This discord is likely because, as the VE staff indicated, outsiders are often not interested in Parks issues and if they do come out to meetings, they are generally combative. However, mountaineers would not be outsiders in this scenario. Access to information was considered as a component of *Control*, but it was determined that, like physical access, it is a precondition to the experience.

6.1.3 Community

Friendship, camaraderie and sense of community, components of *Community*, were pervasive themes expressed by the Intermediates and other KIs. These elements were repeated in Scott's data. Although the narrative data ranked the *Community* factor as relatively low, the *friendship, camaraderie and sense of community* components were the most often mentioned of all the components of the 7Cs. The KI's ethnographically detailed descriptions of how even disastrous trips were improved by a friends' company mimicked the exhaustive descriptions provided by most of the narratives. Rarely, however, did the narratives or Ewert's data discuss the importance of *mentorship* and *teamwork* as components of *Community*. The Intermediates, Mountain Guides, Interest Groups, and VS members of PC staff on the other hand, indicated that these two elements, not included in the original 7Cs framework, are of utmost importance. These groups' aspiration for *mentorship* and *teamwork* is likely due to the fact that they regularly engage in it: the Interest Group interviewees represent climbing clubs and organizations whose mandate the representation of its members and improvement of mountain leadership through various forms of mentorship; the Mountain Guides interviewed discussed their desire to teach clients the necessary skills, as opposed to just leading them up a mountain; and finally, most of the Intermediate participants themselves were recruited from the ACC, signifying their involvement in the club and preference for mentorship-based learning. A speculative reason for the lack of appearance of these themes in the narrative literature is that these stories feature exceptionally talented climbers who are generally self-described loners because they are the only ones at their level. They don't need mentors. Because the focus here is on intermediates and not experts, the *mentorship* and *teamwork* components will be added to the *Community* factor in the 7Cs framework.

The most often mentioned and disliked management action was the party-size restriction in Banff NP. Intermediates and KIs alike disapproved of the requirement to have four or more

people on the approach trail to popular climbing routes and would prefer being allowed access with only two. This is counter-intuitive given the above paragraph which states *camaraderie* is essential. One might think that taking more people would support *Community*. However, their opposition was due to two factors: 1) more people in your climbing party means you cannot bond as well with just one person, and 2) climbing with more than two people presents safety hazards. My speculation is that safety, like access, is not one of the 7Cs, but rather a prerequisite that takes precedence over *Community* in terms of optimal experience. Improving visitor compliance with the party-size restrictions will depend on a careful articulation of the reasons behind these management actions. This, and other recommendations, will be discussed in the latter half of this chapter.

6.1.4 Context

All of the data sources highlighted the *wilderness experience* as a necessary component of *Context* and the mountaineering experience. KIs were emphatic about this. The KI's concern for the environment and desire to practice low impact mountaineering techniques, however, was not present in Scott's or the narrative data. Specifically, the KIs were repulsed by human waste, garbage and other active degradation of the environment. Similar reactions to these types of offences have been noted in previous academic research, including research that showed rock climbers to be displeased by resource impacts as a result of poor climbing practices (Monz et al., 2005). One study, examining the relationship between specialization and mountaineers' environmental attitudes, showed that experienced mountaineers are aware of low-impact practices and thus demonstrate more amenable attitudes toward them than those who are less specialized (Dyck et al., 2003). There exist a number of examples of climbers' inclination to limit their impacts in order to protect their privileges to climb on public lands; they often work with land managers to adopt and implement ecologically based climbing practices (Grijalva & Berrens, 2003). Finally, Johnston and Edwards (1994) state that mountaineers are different from other recreationists because of their active commitment to mitigate and minimize their impacts. One academic study indicated quite the opposite - that rock climbers pay more attention to the qualities of the climbing route than the ecological state of its setting (Merrill & Graefe, 1997). The difference here is that Merrill and Graefe's (1997) study examined only rock climbers, who exhibit a different recreational typology than mountaineers.

The reason these components were not presented in the narrative data, but are prevalent in the interview data, is likely based on the social norms of the interviewees and the questions they were asked. The KIs interviewed in Canada are most likely accustomed to the pristine conditions of the national parks, where maintenance of these conditions is enforceable by law. The Intermediates reported being pressured by other climbers into complying, a result of expected behaviours. They described being appalled by garbage and the conditions of human waste facilities (or lack thereof) in the Alps, the Andes, and the Himalayas. These topics also surfaced when they were asked, “what detracts from your experience?” It is unlikely that the narrative authors and the academic researchers’ focus would have been on sanitary conditions or garbage given the scope of their work. Thus, *environmental consideration* was been added to the 7Cs framework. These results support the anthropocentric philosophy, which advocates for the facilitation of interaction between humans and their natural landscapes (Hendee et al., 1990). The KI interviews desired to maintain the ecological integrity of their parks, but still wanted the opportunity to experience them while mountaineering.

The KIs’ concern for the environment appears to be more important than initially understood and this contradicts much of what they had previously stated about their climbing experience being their first and foremost concern. When they began to discuss the value of the *wilderness experience, scenery, beauty and geography*, they said that any management action could be acceptable as long as these components of the mountaineering experience were facilitated. This coincides with studies that show visitors are likely to accept more direct management if they trust it will maintain their preferred experience (Shindler & Shelby, 1993). This was the case in each of the study sites. Perhaps this is because, at the heart of traveling, sports, and mountaineering in particular, there is a search for novelty (Fiske & Maddi, 1961; Mitchell, 1988; Suvantola, 2002). Several of the KIs mentioned their dislike of technology-driven, urban lifestyles. Their search for contrasting experiences has them seeking *wilderness experiences* which increase the need for self-sufficiency (A. W. Ewert & S. J. Hollenhorst, 1997) and helps them escape the confines of their monotonous lives (Sleasman, 2004; Suvantola, 2002).

The ROS states that as recreational settings become more rustic, recreationists find direct management actions less acceptable. In direct contrast to this concept, Intermediates and most other KIs were willing to accept direct management actions in the backcountry (e.g. numbers

quotas, use rationing, party-size restrictions) in order to ensure the *wilderness experience* component of *Context*, and the *solitude* component of *Catharsis*. Martin et al. (2009) showed this as well – that the standard ROS framework does not always support visitors’ perceptions of management actions.

6.1.5 Creative Opportunities

Ewert (1994) showed that creativity and decision-making were part of only the expert mountaineer’s motivations, not of the intermediate’s. The data disputed this; *decision-making*, *complexity*, *problem solving*, and the *learning process* were mentioned frequently by the Intermediates. One reason for this incongruity might be found in the type of questions that were asked of the interviewees. The questions most often surrounded management actions in parks that curtail a mountaineers’ ability to decide where and when they want to travel. This type of questioning could have elicited responses that then focused on the importance of the freedom of *decision-making*. It could also be reasoned that the mountaineers interviewed were more experienced than they thought – lowball ranking themselves as intermediates. As Lefèvre (2004) discovered, the subtleties in the expansive range of high-altitude mountain users are many. This research did not categorize users with such detail. However, it would be dubious to assume that these reasons are the only ones that explain the Intermediates’ desire for *Creative Opportunities*. Many participants indicated that, as much of their lives are structured, their inability to make real-time decisions with immediate and perceptible effect drives this need.

The Intermediates, and a few Mountain Guides, had the resounding conviction that mountaineering can be most interesting, pleasing and provoke creativity when the climbing is tough and not exactly as expected. This refutes much of the expectation/preference literature, which states that even if the trip does not match their preferences, but at least meets their expectations, then it will be satisfactory. It is likely that the KIs are referring to unanticipated weather and route conditions rather than to management actions that took them by surprise (e.g. getting ready to climb a route only to find that you need four or more in your party). The weather is something that management cannot control; mountaineers are aware of this and thus perhaps it does not affect their overall measure of trip satisfaction or their opinion of the park’s management actions.

With the exception of a few of the KIs, the interview participants rarely discussed the *historical connection*, but the narratives did so in great detail. Travel narratives, much like

several of those examined, often include historical accounts of their settings to provide context. The four KIs who reflected on the importance of this aspect to their experience are historians, journalists or have climbed extensively in the Alps and Scotland, where there is a consideration for the history of mountaineering woven into the collective consciousness. It is plausible that because Canadian mountaineering history is shorter and not celebrated as much as it is in Europe, the interviewees have yet to be exposed to it en masse. Although its presence was limited in the KI interview data, there was enough to support its inclusion in the 7Cs. It is believed that, with more exposure, mountaineers in the Rockies would come to enjoy the historical aspects of their chosen recreation and it would come to support their experience.

6.1.6 Catharsis

Ewert (1994) supports the inclusion of *Catharsis* in the Intermediate's experience. *Solitude* was the most frequently discussed component of *Catharsis* in the KI interviews, especially by the Intermediates. Although it was one of the most repeatedly mentioned components overall, it was seldom addressed in the narratives or in Scott's data, where one might expect to find allusions to the softer, more reflective elements of the mountaineering experience. A speculative explanation for this is that because many of the narrative authors wrote about their epic climbs, which were attempted solo or by a select few climbers, while in remote locations where solitude and seclusion were assumed. The Intermediates, however, are accustomed to climbing in popular, more easily accessed areas, so they might sense an increased longing for solitude.

As stated by Manning (2011) and Manning and Anderson (2012), parks governed by dual-mandates to conserve park resources while allowing for visitor use must employ an adaptive management process laden with inherent trade-offs. It would appear that the mountaineer's optimal experience is also subject to these trade-offs. Similar to their attitudes towards the *wilderness experience* in *Context*, KIs were willing to accept most management actions as long as they contributed to the experience of *solitude*. *Solitude* was often referred to in terms of mountaineers' safety concerns. Crowded routes, for example, irritated the KIs because of the resultant lack of *solitude* as well as the potential for increased rock fall caused by other climbers or competitiveness between climbing parties. Management actions to correct this in high-use areas, including the requirement for permits and numbers quotas were not liked but considered tolerable. The two Mountain Guide KIs approved of these types of direct

management actions more than did the other KIs. This is likely because they are both from the UK and frequently guide in the Alps, both sites being much busier climbing hubs than the Rockies. These findings show that mountaineers are prepared to sacrifice some degree of access, freedom of choice and freedom from restriction to ensure they experience *solitude* and *wilderness experience (Context)*. Consistent with Lawson and Manning's (2012) study of overnight wilderness visitors to Denali NP and Preserve, the data indicates that mountaineers "may realize that without certain management restrictions...resource and social setting attributes...are likely to deteriorate beyond acceptable conditions" (Lawson & Manning, 2002, p. 305).

6.1.7 Chrysalis

Specialization literature asserts that as mountaineers become more proficient, they move from basic mechanical desires, such as learning to climb, to more rich, intrinsic and autotelic factors, such as self-expression (Delle Fave et al., 2003; A. Ewert, 1994; Ewert, 1985). Regardless, many of the Intermediates discussed benefits that go far beyond the mechanical to *confidence* and an *affirmation of life*. Ewert (1994) showed that these elements of the experience are only important to experts, not to intermediates. However, it is likely that mountaineers' desires have changed and become more complex in the last 20 years, since Ewert conducted his study. Perhaps now, a pervasive sense of anxiety and work overload leads mountaineers to look for richer experiences, encouraging personal development.

Tables 5.2, 5.3 and 5.4 demonstrate that management has a limited role in affecting *Chrysalis*. It is the hardest to describe and qualify of all the 7Cs and represents intrinsic, fundamental, personal elements of the experience. Perhaps this is why external management actions such as closures, installations and information/education campaigns have little effect on it. *Chrysalis* is dependent on the mindset of the mountaineer and his ability to gain more from the act of climbing. Although *Chrysalis* played the smallest role in the Intermediates' experience, it was still present in the data and will remain in the 7Cs framework. Several KIs mentioned an *emotional connection*, which was not discussed in the narrative or academic literature. *Emotional connection* was therefore added to the 7Cs framework.

Table 6.1 The final 7Cs of the Mountaineering Experience

CHALLENGE	CONTROL	COMMUNITY	CONTEXT	CREATIVE OPPORTUNITIES	CATHARSIS	CHRYSLIS
• Mental and physical challenge	• Sense of control • Self-reliance • Independence • Lack of external rules and restrictions	• Friendships • Camaraderie • Sharing • Sense of community • Teamwork	• Wilderness experience • In touch with nature • Engaging with landscape • Environmental consideration	• Problem solving • Complexity • Decision-making • Learning process	• Mindlessness • Simplification	• Therapeutic • Spiritual connection • Emotional connection • Self-discovery
• Excitement • Exhilaration • Adventure • Adrenaline high • Fun • Happiness	• Experiencing the “unknown” • Vulnerability • Uncertainty	• Uniqueness	• Scenery • Beauty • Geography • Rhythms of the natural world	• Captures imagination • Induces passion • Stimulating	• Relief • Relaxation • Release • Escape	• Inspires confidence • Self-esteem • Sense of identification
• Physical act of climbing • Skill mastery • Technical difficulty	• Extreme focus • Engagement • Heightened awareness • Flow	• Elevation gain • Summit Fever • Tick lists	• Remoteness	• Discovery • Exploration • Travel new places	• Liberty • Freedom	• Affirmation and enhancement of life • “Truly living” • “Way of life”
• Accomplishment • Fulfillment • Reward	• Real consequences • Serious commitment • Danger • Risk • Mortality • Fear	• Recognition • Competition • Mentorship	• Peace • Tranquility	• Historical connection • Mountaineering idols	• Solitude	
• Deprivation • Hardship • Primitiveness			• Variety			

The highlighted components indicate the additions to the 7Cs

6.2 Other Major Observations

6.2.1 The Behavioural Approach

In response to the now obsolete belief that outdoor recreation participation is solely influenced by variables such as demographics, trends and income, the behavioural approach was developed in recognition of the fact that complex motivations also affect participation (Haas et al., 1980). Table 1.1 shows the four levels of demand for outdoor recreation, including 1) the type of activity, 2) the environmental, social and managerial settings, 3) the motivations and 4) the benefits to participation. A great deal of research was conducted based on this model, with countless motivations and benefits listed (Table 1.2) (Driver & Tocher, 1970). Critics have since proposed that this linear classification of settings, motivations and benefits is still too narrow and that management based on benefits alone is shortsighted (Manning, 2011). It has been suggested that there are interactions between these elements and participant emotions that we do not yet understand and that “recreation experiences are highly dynamic and emergent...many relationships have yet to emerge” (Manning, 2011, p. 189). The complementary and contradictory components of the mountaineering experience, represented in Figure 8, show that there is nothing linear about understanding the experience. This is why the 7Cs have not been ranked by importance, nor have motivations been separated from benefits. This occurred naturally, and it was only after the completion of the 7Cs framework that its apparent disorder was observed. It would seem, however, that there is support for framing the experience in this non-linear fashion. Given that wilderness experiences are comprised of three dimensions, including the social, environmental and managerial conditions encountered, a three-dimensional synopsis of the optimal experience might provide managers with an alternative approach to examining the recreational experience. The 7Cs framework is designed to act in this manner – to provide managers with an overview of all of the elements of the intermediate mountaineer’s experience with their potential for interacting with each other. As in Manning (2011), the term “motivation” has been used generally throughout this research to encompass all the factors that affect recreation participation including satisfactions, preferences, desires and expectations. The 7Cs have been referred to as the motivations for mountaineering but they are ultimately the factors that influence mountaineering participation.

6.2.2 Complementary and Contradictory Factors

Mountaineering appears to be a pastime of contradictions. Johnston and Edwards (1994) describe mountaineers as being unique and “caught in a trap of their own making”, in that “their mountain treks and summit struggles represent an ultimate challenge and respect for the “wild-ness” of nature; yet as a consequence of their presence, they transform, tame and degrade nature” (Johnston & Edwards, 1994, p. 473). Figure 8 identified the complementary and contradictory components of the mountaineering experience.

Based on the multifaceted nature and range of experiential elements outlined in the 7Cs, it is not surprising that complementary components exist: experiencing some of these may lead to experiencing others of a similar nature. These paradoxical desires, motivations and benefits present a complex problem for managers attempting to provide for an optimal experience. Opposing components identified include *sense of control* and *vulnerability*, *truly living* and *mortality*, *camaraderie* and *solitude*, *simplicity* and *complexity*, and *relaxation* and *excitement*. In the case of backpackers, these incongruous desires can “create tensions...in their search for experience, which are often revealed in the gap between the ideology and practice” (Wilson & Richards, 2008, p. 192). Despite recognizing the contradiction in their lives, the KIs did not seem able to reconcile these desires nor did they seem distraught by their incongruity. Rather than view mountaineers as existing at either end of the continuum (e.g. either desiring a *sense of control* or *vulnerability*), Wilson and Richards (2008) argue that the experience is a suspension between the two and “integration of such opposites [are] essential elements of the whole” (J. Wilson & Richards, 2008, p. 193). This suspension is not necessarily a mid point between opposites, but depends on the individual who must then understand, manage and negotiate these personal contradictions as they move along the continuum of the experience (Pringle, 2009).

6.2.3 Expectations, Preferences, Acceptance and Satisfaction

The notions of acceptance, compromise and trade-offs were often referred to by the KIs when discussing management actions, as signified by their willingness to accept any management action as long as it facilitated *solitude* or the *wilderness experience*. Managers should note this willingness to compromise in order to better understand the acceptable limits of management for mountaineers. The Mountain Guides interviewed in the Alps were the most cognizant of the effects of expectations and preferences on the experience. They noted that it is unlikely that any mountaineer enjoys a hectic, bustling mountaineering experience, preferring

instead a peaceful one with the presence of few other climbers. So why then do so many climbers visit the honey-pot areas in the Alps, such as Chamonix and Zermatt? Table 5.4 shows that many of the current conditions and management employed in the Alps detract from the mountaineering experience. Based on this table, it could be reasoned that very few mountaineers climb in the Alps due to the poor support for their optimal experience. This, however, is not the case. Mountaineers have come to expect the installations, the uplift and the lax environmental protections, and are thus less disturbed by them. The Guides indicated that as long as their clients' expectations were matched to their experience, even if their preferences were not, they could be satisfied. This is aligned with the academic literature on expectation-satisfaction in recreation. Past experiences can "influence motivational patterns through a cognitive restructuring, phenomenological reinterpretation of reality, or development of a more defined form of specialization on the part of the participant" (Ewert, 1994, p. 14). According to the expectancy theory, this suggests that one satisfying experience has the potential to alter expectations, preferences and motivations for future experiences (Kuentzel & McDonald, 1992; Manning, 2011; Vroom, 1964). Given that most visitors will plan, learn and then adjust their experiences accordingly (Cole, 2011-2012), this could be important for PC managers when aiming for repeat visitation. The Mountain Guides indicated that they had an important role in managing their clients' expectations and suggested that parks managers had similar responsibilities.

6.2.4 Assessment of Study Sites' Provision of the Experience

The development of Tables 5.2, 5.3 and 5.4, used as a method of compiling the interview data and examining the ability of study sites to provide for the optimal mountaineering experience, were a powerful tool and displayed some unexpected results. Initially, I had assumed that the Alps, with its few rules and restrictions, would stand out as the most effective at providing for the optimal mountaineering experience for intermediates. It was expected that KIs would state that the detracting rules and regulations in the Mountain Parks diminish the entire mountaineering experience. These assumptions were false, given the number of red minuses (-, detractors) assigned to the Alps, and green pluses (+, facilitators) assigned to the Mountain Parks and the Cairngorms in Table 5.2 and 5.3, respectively. Table 5.2, a table of apparent disparate items indicates favourability with regards to PC's management style. At a quick glance, most of the current conditions and management actions listed under the Mountain Parks are balanced

with green and red, indicating that the organization does an adequate job of managing for the mountaineering experience. Any detracting management action it employs appears to be balanced by the things it does to facilitate the experience (with the exception of the party-size restrictions). However, this assumes that all of the 7Cs represent equal parts of the experience, which based on the frequency of appearance of the top five most repeatedly discussed components, *sense of control (Control)*, *solitude (Catharsis)*, *wilderness experience (Context)*, *camaraderie (Community)* and *decision-making (Creative Opportunities)*, is not the case.

Specifically, PC management detracts from the mountaineers' *sense of control*. Perhaps they are trying to control "too much". Much of their management style is based on the control of visitors' behaviour and actions, which is due to the fact that they are a government organization mandated to do so, with wardens dedicated specifically to enforcing legal regulations under the National Parks Act. The Mountain Parks' management actions do facilitate *solitude*, albeit not overly so. Much of the *solitude* that the KIs enjoy in the Mountain Parks is probably due to the massive amounts of space and numerous peaks, few visitors in the backcountry and remote access to their desired recreational haunts. The *wilderness experience* is facilitated in the Mountain Parks, due to the management actions in place designed to maintain this for ecological integrity, and the nature of landscape itself. The only detractors from this component are the occasional trail sign and trail maintenance (both of which are required to support the experience of other park users), and the much-disliked party-size restriction. *Camaraderie* is not really facilitated, nor detracted from by the Parks' management. The ACC alpine huts, however, do indeed lend to this element and received rave reviews from the majority of KIs interviewed in Canada. Finally, *decision-making* is ranked as irrelevant, as there are the same number of management actions that facilitate the 7Cs as there are management actions that detract from them. This is exceptional, given the common belief of KIs that any sort of management curtails their decision-making capabilities.

Despite the fact that most of the PC managers indicated that they do not take mountaineers into consideration, the Mountain Parks appear to sufficiently support the overall, optimal mountaineering experience for intermediates. There seem to be concessions made for the experience (VS avalanche report, Rogers Pass Permitting System), even if most are unintentional (e.g., waste facilities at the back of Lake Louise, the allowance of alpine huts in the parks where traditionally, no infrastructure is allowed, the application of voluntary closures). The KIs stated

that current management is primarily focused on the preservation of the resource and in this case, this is inadvertently facilitating the desired experience for intermediate mountaineers, who most wish for a *wilderness experience*. The scenery is beautiful, the peaks are remote, the variety of objectives is bountiful, the difference in landscapes across the Mountain Parks is vast, and the routes are uncrowded. Add to this a tight-knit climbing community. These elements are all far beyond management intervention. And in general, all of the Intermediates said they were on the whole pleased with their mountaineering experience in the Mountain Parks. However, Monz et al. (2005) discovered that climbers felt that managers ultimately do not fully understand the climbing experience and as a result, their recreation sites are not managed accordingly. Even if PC does a good job unintentionally, this and numerous other studies' findings reinforce the pervasive theme that, in an effort to fulfill part of their mandate, managers must be mindful of their recreationists' desires and motivations.

CNP appears to do an excellent job of facilitating the mountaineering experience. Not only does Table 5.3 show an overall dominance of green pluses (+, facilitating management actions), four of the top five components (*sense of control*, *wilderness experience*, *camaraderie* and *decision-making*) are provided for remarkably well – their facilitating actions well outnumbering the detracting ones. The implementation of voluntary wildlife closures, inclusion of visitors in strategy development for the Park (via the Outdoor Access Forum and Core Paths Plan) and few restrictions in general, have helped give mountaineers a *sense of control* and *decision-making* abilities. In comparison to the Mountain Parks, CNP is significantly smaller, has smaller mountain objectives, more visitors and less “wilderness” by the Canadian measure, yet it manages to facilitate the *wilderness experience* for mountaineers well. Clever adjustments to traditional path maintenance and waste facility management techniques, such as the ‘Long Walk-in’ and the ‘Poo Project’ have allowed CNP’s uplands to remain a place of respite from human encroachment. *Camaraderie* is well facilitated, with no detracting management actions. Again, the collaboration of mountaineers and stakeholders with Park managers, the presence of Mountain Bothies and CNP’s symbiotic relationship with the MCofS to educate and mentor mountaineers account for this strong sense of *camaraderie* and *sharing*. *Solitude* is facilitated, but only by one management action (Long Walk-in), which is a triumph given the relative high density of visitors in the uplands.

The promotion of ‘Responsible Use’ is the primary driver here. It facilitates several components in 6 of the 7 critical factors of the experience. Recreationists appear to appreciate the consideration it gives them, which encourages compliance and a desire to act conscientiously, ensuring an equal experience for others in the Park. Although the CNPA staff interviewed stated that they do not officially take mountaineers into consideration, the CNP Plan incorporates many of the recommendations outline in the next section of this thesis, including a focus on collaboration, communication, education and developing a solid understanding of their users’ motivations, preferences, expectations and resultant behaviours. CNP seems to understand the climber’s desire to be unmanaged yet catered to at the same time, clearly demonstrating one Intermediate’s comments: “Parks need to take us into consideration...but also leave us alone” (Tindal, 2011).

In comparison to the Mountain Parks and CNP, the Swiss and French Alps appear not to facilitate the optimal intermediate mountaineering experience. As illustrated in Table 5.4, of the top five most important components, two are facilitated, one is in the middle and two are highly diminished. This might suggest that the Alps should be designated as adequately facilitating the experience but the abundance of red assigned to the remaining 7Cs would indicate otherwise. *Solitude* and *wilderness experience* are highly diminished, with no facilitating conditions or management actions in place and a host of detracting conditions. This is not surprising, given the obvious high density of recreational users in the area, the easy access via numerous forms of uplift, the multitude of accommodations and installations in the high alpine, the lack of protected status and the historic development of the landscape. *Camaraderie* is well facilitated, with no detracting management actions. Most of the KIs admitted to using the extensive alpine hut system and Guides’ Offices, and appreciating their tremendous capabilities for fostering this component – meeting like-minded mountaineers from all over the world and acting as congregation hubs for climbers. Incidentally, the Guides’ Office facilitates six of the 7Cs and will stand as a recommendation of this research. *Decision-making* is neither facilitated nor hindered and *sense of control* is facilitated, albeit not overly so. These two findings are surprising given the lack of concerted management effort to control visitors or curtail their freedom of choice. The infrastructure designed to support access to the high alpine (lots of waymarking, uplift and installations) appears to have worked against the mountaineering experience in these cases. The occasional government-enforced absolute closure of potentially

dangerous routes also has a significant impact on both of these components. Although the general lack of external rules and restrictions supports *decision-making* and a *sense of control*, several of the other current conditions detract from them.

It is reasonable to assume, based on the above conditions, that the study locations in the Alps are not suitable to the intermediate's optimal mountaineering experience. However, the thousands of mountaineers who visit each year present a contradiction. It has already been established that their decision to climb in the Alps, despite some of these drawbacks, and their resultant satisfaction, is based on their expectations. Another reason these areas attract mountaineers is because of the history associated with iconic peaks, such as Mont Blanc, the Eiger and the Matterhorn. Their prominence in much of the narrative literature is significant and I can attest that one of my reasons for visiting these areas was based on the epic tales of triumph and failure on these peaks in the early days of mountaineering. Access to the high alpine glaciers is convenient and virtually effortless, the availability of guides and instructors for hire plentiful, the scenery beautiful and the variety of objectives abundant. These reasons, as well as their proximity to the main climbing nations in Europe, make the Alps seem appealing despite not technically providing for the optimal experience.

When examined on a linear scale from least managed to most highly managed, the three study sites appear in the following manner (Fig. 24):

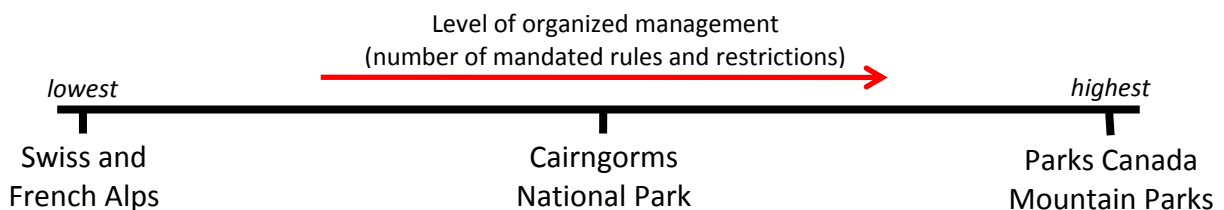


Figure 24. Levels of Organized Management of the Study Sites
Represented on a Linear Scale

When the study sites' ability to provide for the optimal mountaineering experience is plotted on a similar linear scale, the result is exhibited in this manner (Fig. 25):

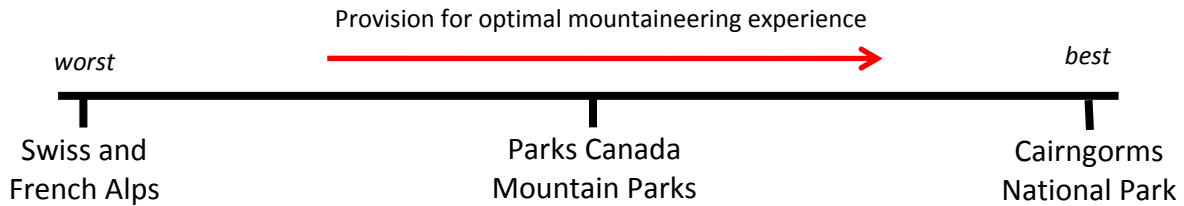


Figure 25. Study Sites' Ability to Provide for the Optimal Mountaineering Experience Represented on a Linear Scale

When these two parameters are plotted together on an x and y-axis of a conceptual model (Fig. 26) it can be seen that more, highly structured management does not categorically mean a site is better at providing for the optimal mountaineering experience. Equally, it shows that unorganized and disjointed management, while contributing to freedom of choice for mountaineers, does not provide for the optimal mountaineering experience. The “middle ground” approach to management, where mountaineers are not completely controlled yet their needs are considered, appears to be the most effective at ensuring that a mountaineering site provides for the optimal experience.

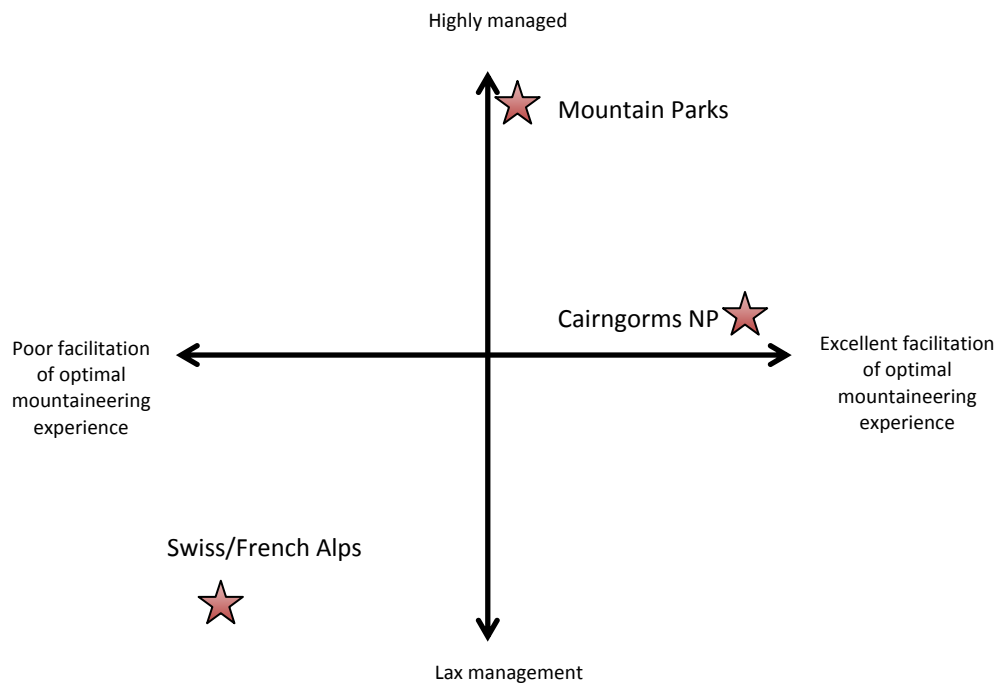


Figure 26. Conceptual Model of Study Sites' Provision of the Optimal Mountaineering Experience

6.3 Possible Limitations in Methods

Several limitations in the methods have been noted as possibly having implications for data quality. For example, a greater number of interview participants in certain study areas, or a better spread of participants would have been preferable. By adopting a spatial approach to choosing interviewees, the researcher took the risk of including non-locals in the study site KI interviews. This did indeed happen – former UK residents and current European visitors were interviewed in the Mountain Parks, and British Mountain Guides acted as KIs in the Alps study sites. It could be argued however, that the mountaineering experience should be tailored more generally to visitors, foreigners and residents instead of solely local mountaineers so this approach may have been effective. Only two participants were interviewed in the Alps, neither of whom were land managers. Relying solely on the Mountain Guides' perspectives on management, as well as Hanneman's (2000) report on the state of sustainable climbing management in Europe, was not ideal. However, limited by funding, time in a foreign nation and language barriers, this was not overcome. On the other hand, the experience provided in the Alps does not appear to match that which is desired by the Intermediates interviewed in Canada, so perhaps the recommendations remain relevant.

With regards to data collected in the Mountain Parks, only one participant was interviewed in Jasper NP, and none in Waterton Lakes NP. In order to make effective recommendations for all seven of the Mountain Parks, it would have been ideal to interview PC staff and mountaineers in each area. Focus groups were attempted in Banff and Jasper, but as stated in Chapter 4, finding and coordinating participants was impractical and unattainable.

Previous studies have shown that the majority of mountaineering participants are middle-aged males. This was reflected in the gender and age of the majority of the KI participants. However, as participant numbers, genders and ages in the Mountain Parks have not been collected in a concerted manner, this may no longer be the case. An attempt was made to interview both males and females to provide a more representative sample. Of 14 professional and expert interview participants, six were female. Of 5 Intermediate interviews, however, only one was female. The majority of KI participants were middle-aged although attempts were made to select professionals and experts from varying age groups. The voluntary nature of the Intermediates' involvement prevented more female participants from being contacted and encouraged to participate.

It was beneficial to have some outlier interview participants whose opinions were atypical. However, the ACC participant's depiction of the Club's relationship with PC was poles apart from others' views. Given that some of the recommendations stem from collaboration with outside organizations, it would have been worthwhile to explore this relationship further, from another ACC representative's point of view.

Determining the actual skill level (beginner, intermediate, expert) of the Intermediate interviewees was difficult given that participants volunteered to participate based on their self-selection as intermediates. A definitive scale to objectively measure skill level and experience level could have been employed, as suggested by Ewert (1984, 1985). Skills and experience can be rated on well-established climbing difficulty ratings and on past objectives attempted, respectively. Participants listed their mountaineering achievements but their self-selection as intermediates was taken as at face value.

Finally, I have a fond personal connection to all three study sites based on prior positive mountaineering experiences. Although acutely aware that "place attachment" might affect data collection, I attempted to avoid any biases. It could be suggested that a neutral stance on each of the locations may have been better. However, it can also be argued that a personal knowledge of the areas and the experiences to be had there is invaluable to this type of ethnographic, phenomenological study.

6.4 Recommendations and Implications

The following section details recommendations for PC's management of the mountaineering experience in the Mountain Parks. Recommendations have been designed to improve the quality of the visitor's mountaineering experience within the context of the PC mandate (i.e., recommendations do not contradict PC's requirement to manage for ecological integrity). The cumulative weight of the recommendations has been considered. Although it is addressed at a basic level, the mechanism for the implementation of these recommendations goes beyond the scope of this research and would be better addressed by future research.

The recommendations have been divided into two categories: Management Actions and Management Enablers. Management Actions (section 6.4.1) are defined as direct or indirect interventions, implemented on the ground to influence mountaineers' behaviour patterns, expectations, comprehension and acceptance of management. These are arranged according to the evaluative framework: *The 7Cs of the Mountaineering Experience*. The action that best

facilitates a specific element of the mountaineering experience has been assigned to that particular C. It is important to note, however, that all of the management action recommendations facilitate more than one C; most facilitate the majority of the Cs. Management Enablers, on the other hand, are tools to be used by PC to assist in the achievement of management goals. These are more general recommendations that do not directly affect mountaineers, with the exception that the experience may be more fulfilling as a result of their implementation. Management Enabler recommendations are provided in section 6.4.2.

6.4.1 Management Actions

The Management Action recommendations are divided into three types: 1) Access Management, 2) Site Management and Environmental Concern, and 3) Communication and Engagement. These self-explanatory classifications have been used to facilitate analysis and discussion. Summary tables indicating the facilitating abilities of each recommendation are provided (see Table 6.18, 6.19, 6.20).

6.4.1.1 Challenge

Table 6.2 Management Action Recommendation: Long Walk-in

Title:	Long Walk-in via Ridgeline Trails
Recommendation:	In some high-use areas, with short approach trails, make access to mountaineering routes more time-consuming and challenging by extending approach trails via ridgelines. Some high-use areas should be left as is – known to be popular and easily accessible.
Type of Management:	Access management
Primary Components Facilitated:	<i>Physical challenge, hardship</i>
Description and Considerations for Management:	The 'Long Walk-in' constitutes a form of access rationing and was developed to reduce overcrowding and excessive pressure on the natural environment in busy areas of CNP. A two-hour increase in walking time on CNP approach trails was found to reduce predicted visits at mountaineering sites by 44% (Hanley et al., 2002). This recommendation is terrain-dependent. Most of the mountaineering routes in the Mountain Parks are already quite remote and require a good deal of effort to access. However, there are many easily accessed peaks that intermediates would find more challenging if the approaches were made more strenuous. High-use areas, with short approach trails, that experience erosion and trampling related impacts are good candidates for this recommendation. Rather than extending trails through untouched forest however, trails should be extended via ridgelines, as suggested by Bunyan (2011). This would improve scenery viewing and potentially reduce impacts from mountaineers going off trail to access climbs more directly. Intermediates admitted a preference for shorter approach times but this would improve <i>Challenge</i> . Managers would have to be cognizant of knock-on effects at other mountaineering sites however redistribution of visitors of this type has proven to be effective for the reduction of social and environmental impacts - equivalent to a 20% cut in visitation (Manning & Anderson, 2012). Like most management actions, the effectiveness of the 'Long Walk-in' is dependent on the way it is communicated to visitors. The following details should be included: why the longer trails are necessary, what happens if visitors fail to stay on the approach trail and other available options (Hammitt & Cole, 1987; Hendee et al., 1990). This recommendation does not have to be applied to every high-use, popular trail.
Secondary Components Facilitated:	<i>Control: commitment</i> <i>Context: wilderness experience, scenery, geography, remoteness, variety</i> <i>Creative Opportunities: discovery</i> <i>Catharsis: solitude</i>
Secondary Components Hindered:	<i>Control: sense of control</i>

Table 6.3. Management Action Recommendation: Limited Approach Trail Management

Title:	Limited Approach Trail Management
Recommendation:	Approach trails should be left relatively untouched by obtrusive maintenance infrastructure such as footbridges, handrails, stairs and boardwalks and should not be graded or adapted for ease of access.
Type of Management:	Site Management/ Environmental Concern
Primary Components	<i>Physical challenge, technical difficulty, hardship</i>

Facilitated:	
Description and Considerations for Management:	This recommendation could be implemented in areas frequented by mountaineers with approach trails leading to well-used mountaineering routes. Backcountry users' (hikers, mountaineers, backpackers etc.) preference for low standard trails has been well documented (Manning, 1986). Generally, difficult access results in a low volume of recreationists, which in turn provides for high-value experiences for those users who desire solitude (Nepal & Chipeniuk, 2005). Obtrusive management actions, including overly managed trails in may damage the experience of mountaineers. "The risk recreation experience can be preserved by minimizing site development and protecting the challenging nature of the landscape" (Ewert, 1994, p. 22). Therefore, in this case, inaccessibility is not necessarily negative and could support a variety of the 7Cs. Implementation might not be practical in high use areas frequented by a multitude of other recreational groups. High use trails frequented by backpackers and hikers generally require some trail maintenance in order to avoid undue impacts and pressure on flora etc. Martin et al. (2009) showed that style of recreation influences the appropriateness rating for management actions (Martin 2009) so other users might prefer more manicured trails. This is a point for future research.
Secondary Components Facilitated:	<i>Control: commitment</i> <i>Context: wilderness experience, beauty, remoteness</i> <i>Creative Opportunities: exploration</i>
Secondary Components Hindered:	n/a

6.4.1.2 Control

Table 6.4 Management Action Recommendation: Rogers Pass Permit System

Title:	Rogers Pass Permit System
Recommendation:	Implement a permit system similar to the Rogers Pass Permit System in high-use mountaineering or ski mountaineering areas that demonstrate significant risk to visitor safety or where large area closures occur frequently.
Primary Components Facilitated:	<i>Sense of control, engagement, commitment</i>
Type of Management:	Access management/ Communication and Engagement
Description and Considerations for Management:	Rationing has been declared as being increasingly important in our NPs due to crowding and environmental externalities, "yet cultural and practical considerations mean that a system of simple entry fees [and area closures] to mountain areas is unrealistic" (Hanley et al., 2002, p. 167). The current system in Rogers Pass, including a permitting system and an information/education campaign, was established because of concerns for visitor safety in active avalanche control terrain. However, this recommendation could be extrapolated to include large ecologically sensitive areas where closures are deemed necessary for conservation reasons. As it is in Rogers Pass, this management action should be implemented in conjunction with an accompanying information/education campaign (Manning & Anderson, 2012). Rolling area closures could be supplemented by an education session, test and permit granting; indicating the visitors understand the need for the closures and know where to find information on other areas open to mountaineering and skiing. A variety of media to educate visitors at visitor centres could be used, including a mandatory audio-visual display prior to purchase of an annual or seasonal mountaineering permit. Mountaineers will be pleased with PC's level of consideration for their experience, the significant amount of terrain left open while avalanche control is being conducted and their resulting <i>sense of control</i> over their experience. It is expected that the information/education campaign will also connect mountaineers to their landscape and provide a deeper understanding of and appreciation for PC management.
Secondary Components Facilitated:	<i>Challenge: fulfillment</i> <i>Community: elevation gain</i> <i>Context: wilderness experience, in touch with nature</i> <i>Creative Opportunities: learning process, decision-making</i> <i>Catharsis: simplification</i>
Secondary Components Hindered:	<i>Catharsis: liberty, freedom</i>

Table 6.5 Management Action Recommendation: Party-size Restriction Permits

Title:	Party-size Restriction Permits
Recommendation:	Allow mountaineers to apply for and purchase one-time access permits in advance, exempting them from the requirement of four + people in a party in areas with party-size restrictions.
Primary Components Facilitated:	<i>Sense of control, self-reliance, independence</i>
Type of Management:	Access management

Description and Considerations for Management:	Party-size restrictions appeared to be very contentious amongst the KIs. Manning and Anderson (2012) showed that most visitors (81%) support party size limitations caused by environmental concerns. However, it was also discovered that only 60% complied with the regulation. The KIs were similar in that they supported the restrictions but admitted to unashamedly disobeying them. Special permits for mountaineers granting them access to summit a peak in an area where party size restrictions are in place would accomplish several things: 1) increase PC's awareness of people travelling through these areas, 2) allow for the optimal desired experience by mountaineers and 3) increase acceptance for the regulation and improve compliance behaviours. Managers would have to ensure that permit applicants understand the risks associated with travelling in smaller groups (especially if in bear territory), and that a limited number of said permits would thus be given out each day. As this could be a liability concern for PC, permit applicants would be required to sign a waiver stating they understand the risks, will always carry bear spray with them and are aware of safe practices while traveling through bear territory. Permits should be allocated to people who place the highest value on the permit (Stankey and Baden 1977). An educational session on how to travel through bear habitat should be provided (this can be done online). Mountaineers could apply for permits online up to several weeks in advance of the day they want to climb. This recommendation, like other forms of use limiting, requires an accurate knowledge of users and their impacts (Stankey and Baden 1977).
Secondary Components Facilitated:	<i>Challenge: skill mastery</i> <i>Community: camaraderie, teamwork, uniqueness</i> <i>Context: wilderness experience</i> <i>Creative Opportunities: decision-making</i> <i>Catharsis: solitude</i>
Secondary Components Hindered:	<i>Catharsis: liberty, freedom</i>

Table 6.6 Management Action Recommendation: Promotion of Responsible Use

Title:	Promotion of Responsible Use
Recommendation:	Develop and implement an educational campaign promoting mountaineering best practices/code of ethics in order to increase awareness, understanding, care and responsible use of the Parks' natural and cultural heritage.
Primary Components Facilitated:	<i>Sense of control, lack of rules/restrictions, experiencing the "unknown", consequences, commitment</i>
Type of Management:	Communication and Engagement
Description and Considerations for Management:	This recommendation is founded on the communication theory, which suggests that visitor behaviour is partially based on beliefs and attitudes and thus, information campaigns designed to alter relevant attitudes is dependent on a number of variables including the message details and the media by which they are delivered (Manning, 2003). "As mountaineers are likely to have more and sustained contact with the resource than other recreationists, targeting them with [this type of] detailed and dynamic environmental information is appropriate" (Dyck et al., 2003, p. 59). The promotion of 'Responsible Use' facilitates <i>Control</i> by operating on the central route to persuasion; it aims to modify visitor beliefs through practical messages that ideally lead to self-directed modifications in behaviour (Marion & Reid, 2007). By targeting mountaineering philosophies with a message of "this is your land so use it wisely and protect it", encouraging them to recognize their impacts, and providing them with information on low-impact and ethical

	techniques, this action could be more effective and cause less negative reaction than aggressive enforcement that punishes those who disrespect management (Marion & Reid, 2007). If effective, it should reduce the number of site management and use limiting regulations required, thus putting the <i>sense of control</i> back in the hands of the mountaineer. This recommendation does not seek to eliminate the law enforcement capabilities of park wardens, but rather to augment their efforts. This educational campaign could be presented in visitor centres, the Guides' Office (Table 6.7), online and could be disseminated as a booklet, like the SOAC. This should be done in conjunction with the ACC and ACMG Mountain Guides; ideally both organizations would assist in promoting responsible use to their members/clients. "The social sustainability of climbing rules can be achieved if they are developed in partnership between nature conservation bodies [and] climbing associations" (Hanemann, 2000, p. 133). The UIAA supports this approach and they state that, "widening support for the concept that freedom of access, exercised with responsibility is an integral element of mountaineering" (UIAA, 1997, p. 3).
Secondary Components Facilitated:	<i>Challenge: adventure, fulfillment</i> <i>Community: sense of community, teamwork</i> <i>Context: wilderness experience, environmental consideration, beauty</i> <i>Creative Opportunities: decision-making, discovery</i> <i>Catharsis: freedom</i>
Secondary Components Hindered:	n/a

6.4.1.3 Community

Table 6.7 Management Action Recommendation: Guides' Office

Title:	Guides' Office
Recommendation:	Provide mountaineers with a formal setting, similar to an interpretive centre, in which to congregate, build personal connections, learn and seek the expertise of professionals – a hub with which mountaineers can identify.
Primary Components Facilitated:	<i>Sense of community, camaraderie, sharing, uniqueness, tick lists, recognition, competition, friendship</i>
Type of Management:	Communication and Engagement
Description and Considerations for Management:	This recommendation satisfies every component of <i>Community</i>, including one of the top five most important <i>Cs</i>, <i>camaraderie</i>. It is important to note that this recommendation also completely satisfies the components of <i>Creative Opportunities</i>. The desire for a <i>sense of community</i> at all specialization levels of mountaineering has been well documented (Ewert, 1985; Ewert, 1994; Loewenstein, 1999) and was considered very important to all KIs. Mountaineers' affinity for the Guides' Offices in the Alps was apparent during field research. Rather than just a place to congregate or hire mountain guides, this could be established as an interpretive centre for mountaineers, used to improve attitudes about parks management, develop knowledge, modify behaviours and ultimately improve appreciation and enjoyment. Guides' Offices could be established in the main centres of the Mountain Parks such as Banff, Jasper, Rogers Pass*. As Butler (1993) and Marion and Reid (2007) indicate, in order to improve the <i>sense of community</i>, this type of facility requires a familiarity with its audience and knowledge of their motivations; thus it should be collaboratively staffed by those who have first-hand experience with the resource such as PC VS Specialists, and representatives from the ACC and ACMG. Education should be informal, with visitors allowed to look at maps, check forecasts and route conditions information, with experts nearby to assist. Much like the Bureau des Guides in Chamonix, the purpose should not be solely to present factual information but rather to be stimulating and motivational. "It is an extrinsic activity, which is based on intrinsic values and is intended to facilitate an appreciation, understanding and eventually, the protection of those intrinsic values" (Butler, 1993, p. 216). The inclusion of information about the local history of mountaineering also supports the experience (Martel, 2012; Statham, 2011). If historical experts or interpreters also staffed these Guides' Offices, other recreational users could visit and benefit from the experience. This management action supports several of the recommendations and its benefits include providing information on conditions and recreational opportunities, authorizing permits, assisting park management by developing programs that minimize visitor safety issues, destructive behaviour/enforcement problems, improve knowledge of best practices and conservation and collaboration with locals organizations. As a result, mountaineers' connection to the site will improve, deepening appreciation for their climbing community and encourage repeat visits. It is acknowledged that this type of recommendation might be financially demanding, requiring revenue to both develop and staff these centres. It is also recognized that there are far more mountaineers in the Alps, justifying Guides' Offices exclusively for one type of recreationist. However, these offices might be more feasible if other users were encouraged to visit and the offices' expertise was expanded to include similar types of adventure recreation such as paddling, backpacking and rock climbing.

	*The Rogers Pass Discovery Centre mimics many aspects of this recommendation including the presentation of local historical information. However, it lacks the expertise of professional mountaineering guides on site.
Secondary Components Facilitated:	<i>Challenge: excitement</i> <i>Control: self-reliance</i> <i>Context: variety</i> <i>Creative opportunities: learning process, captures imagination, discovery, historical connection</i> <i>Chrysalis: sense of identification</i>
Secondary Components Hindered:	n/a

Table 6.8 Management Action Recommendation: Parks Canada Visitor Safety Information Sessions

Title:	PC VS Information Sessions/ Workshops
Recommendation:	VS teams, in conjunction with the ACC and ACMG, should offer informational sessions on safety practices, mountaineering route opportunities and best practices.
Primary Components Facilitated:	<i>Sense of community, camaraderie, sharing, tick lists, mentorship, recognition</i>
Type of Management:	Communication and Engagement
Description and Considerations for Management:	This recommendation supports the <i>Community</i> factors of the mountaineering experience by allowing for personal contact with PC VS Specialists, one of the most effective types of information/education campaigns (Manning, 2003). The Intermediates had a profound interest in interacting with the professionals on a more regular basis. These types of workshops and special programs are increasingly popular with adventure recreationists (Ewert & Hollenhorst, 1997) and can be effective in enhancing knowledge, use dispersal and the desire to practice responsible use (Hammitt & Cole, 1987; Manning & Anderson, 2012). It is assumed then that this type of format might also be effective in disseminating information about mountaineering safety practices. However, this is a point for future research. Dyck et al. (2003) showed that a sense of community can be cultivated by personal contact with staff which might assist mountaineers in making safe decisions in the field. "Such an approach might encourage norm development and positively influence behavior, ultimately benefiting the resource" (Dyck et al., 2003, p. 59) while improving the community feel and the overall visitor experience (Dawson & Hendee, 2009). These sessions could be delivered through online digital media. However, this would not satisfy the <i>community</i> component to the same degree as personal contact. It is important to note that the ACC already offers workshops similar to this but they are not necessarily designed to connect their members to the Mountain Parks and do not focus on building an understanding for management and visitor safety operations. If PC and the ACC could cooperate to offer this type of program, it is believed that all parties would benefit.
Secondary Components Facilitated:	<i>Control: self-reliance, sense of control</i> <i>Context: variety</i> <i>Creative Opportunities: learning process, stimulating</i> <i>Chrysalis: confidence, sense of identification</i>

Secondary Components Hindered:	n/a
--------------------------------	-----

Table 6.9 Management Action Recommendation: Alpine Hut System

Title:	Alpine Hut System
Recommendation:	The scope of the ACC alpine hut system in the Mountain Parks should be managed by the following principles: 1) the addition of new huts should be limited, 2) the size of the huts should remain modest and, 3) the capacities of the huts should be governed by the social and environmental carrying capacities of the sites.
Primary Components Facilitated:	<i>Sense of community, friendship, sharing, uniqueness, recognition</i>
Type of Management:	Access Management
Description and Considerations for Management:	This recommendation is already in place in the Mountain Parks. It is worth mentioning because the current alpine hut system actively supports the <i>Community</i> factors of the mountaineering experiences, and a variety of the other 7Cs. At present, PC works with the ACC to ensure that the scope and range of the hut system is sensible and that the dimensions of the individual huts are practical, given environmental concerns. The Intermediates appeared to have been pleased with the current ACC hut capacities, which range from six to 40 people. These are the numbers at which the <i>sense of community friendship, sharing, uniqueness, and recognition</i> components are facilitated. Beyond this, the KIs felt that the intimate bonds between climbers were lost and that larger huts, in the Alps for example, resembled impersonal hotels rather than appealing places of congregation for like-minded recreationists. Hut conditions are not required to be as austere as the Mountain Bothies in CNP, but it is proposed that they remain far more conservative than some of the fully serviced huts in the Alps. ACC huts are not commercial lodges, and no hut custodial services are provided (The Alpine Club of Canada, 2014). The restriction of numbers in alpine huts is not primarily designed to be prohibitive to access, although that is a secondary benefit. Rather, this recommendation is intended to improve the community feel. If huts are conservative in size, significantly less land is required for huts than for comparable capacity backcountry camping (The Alpine Club of Canada, 2014). Research on the social and environmental carrying capacities of hut sites should continue. Continued collaboration between the ACC and PC on this front is necessary. This recommendation is intimately connected with the Environmentally Responsible Alpine Huts recommendation (Table 6.12).
Secondary Components Facilitated:	<i>Context: wilderness experience, peace and tranquility</i> <i>Creative Opportunities: historical connection</i> <i>Catharsis: relief, solitude</i> <i>Chrysalis: sense of identification</i>
Secondary Components Hindered:	<i>Control: Sense of control</i>

6.4.1.4 Context

Table 6.10 Management Action Recommendation: Carry-out Backcountry Waste Management

Title:	Carry-out Backcountry Waste Management
Recommendation:	A carry-out backcountry waste management system, similar to the Poo Project in CNP, should be developed and implemented.
Primary Components Facilitated:	<i>Wilderness experience, environmental consideration, beauty, remoteness</i>
Type of Management:	Site Management/Environmental Concern
Description and Considerations for Management:	Waste disposal in wilderness, backcountry environments has been well researched and documented with recommendations ranging from latrines and composting toilets to the burial of feces in small holes. However, mountaineering generally takes place in fragile high alpine environs, devoid of soil and with low temperatures (Hammit & Cole, 1987) making it difficult to bury, mask and disguise human waste. Little research has been conducted on the best methods of waste disposal in these fragile settings (Cilimburg, Monz, & Kehoe, 2000; Garrard, 2005). Without mindful management and suitable waste facilities or practices, both human and environmental health (e.g. water contamination, disease transmission) can be impacted (The Mountaineering Council of Scotland, 2013c). Aesthetic concerns such as the visual pollution and smell also appeared to cause the KIs significant distress. As discussed in section 5.4.6, CNP has initiated the ‘Poo Project’, providing uplands users with “poo pods” to collect and safely store their waste during their trip and discard it at designated disposal sites. Other models of carry-out systems include those implemented in Grand Teton NP, Wyoming, Mount Rainier NP, Washington and Aoraki/Mount Cook NP, New Zealand. These systems employ differing elements including the different types of containers (plastic bags, paper bags, plastic “pods”) and varying degrees of obligation from visitors. However, recommending the specifics of a user carry-out system for the Mountain Parks goes beyond the scope of this research. Although some argue there is little evidence that there are sufficient human health hazards to necessitate carry-out practices (Cilimburg et al., 2000), there is a general sentiment that they improve the aesthesis and components of <i>Context</i>. This is especially true for glacier, ski or winter mountaineering when surface disposal and burial are not appropriate or feasible methods. An argument against the implementation of a carry-out system could be that there are not enough backcountry mountaineers in the Mountain Parks to warrant such a system. Although more visitor use tends to cause more impact, the use-impact relationship is seldom direct or linear. The environmental and social benefits of even a few backcountry users using poo pods in high use areas could be exceptional. The construction of outhouses is expensive and if done in the backcountry, waste extraction by helicopter is also costly (Garrard, 2005). These facilities represent human intervention in the landscape, which mountaineers would prefer not to see (Ewert, 1994). Poo pods require limited funding if implemented in areas where bivying or wild camping are prominent, away from alpine huts. If in a high use area with nearby alpine huts, flying out waste may be more economical (BEES, 2012). This recommendation would work best in conjunction with a information/education campaign on mountaineering best practices as non-compliance can cause further environmental degradation (DeMarco, 2013; Garrard, 2005).

	 Figure 27. Poo Pods and the Poo Project, Cairngorms National Park Source: The Mountaineering Council of Scotland (2013c)
Secondary Components Facilitated:	<i>Challenge: primitiveness</i> <i>Catharsis: escape, freedom</i>
Secondary Components Hindered:	n/a

Table 6.11 Management Action Recommendation: Minimal Signage

Title:	Minimal Signage
Recommendation:	Trail signage in backcountry areas should be minimal and unobtrusive and, where required, creative solutions should be implemented to stylistically preserve the wilderness experience.
Primary Components Facilitated:	<i>Wilderness experience, engage with landscape, beauty, remoteness</i>
Type of Management:	Site Management and Environmental Concern
Description and Considerations for Management:	The KIs' principal opposition to a large number of trail signs in the backcountry was the inherent disruption to the <i>wilderness experience (Context)</i> that they can cause (Cairngorms National Park Authority, 2007a), as well as their disruptive affect on <i>decision-making (Creative Opportunities)</i> and <i>freedom</i> from human intervention (<i>Catharsis</i>). Trail marking in the Alps was the most disliked form of signage, as painted trail markers on rocks indicating trail direction and the start of some climbing routes are commonplace. KIs considered some trailhead signs acceptable, especially if they detailed information regarding temporary closures and regulations which is aligned with recommendations presented by Hanemann (2000). As long as signs are placed at approach trailheads, and occasionally where major trails diverge, but are not scattered throughout the alpine, the <i>wilderness experience</i> can be maintained and mountaineers' experience facilitated (Manning & Anderson, 2012). Cole, Hammond, and McCool (1997) suggest that these trailhead signs can also be effective at enhancing knowledge of best practices. Although waymarking at potentially dangerous locations (where accidents are frequent) has been

	controversial in Europe, it appears to be acceptable as long as the signs or markers are subtle. There are a handful of these sorts of spots in the Mountain Parks where unobtrusive interventions would be appropriate. Snowdonia NP in Wales, UK has developed a creative, sustainable solution to suit the backcountry user's desire for <i>wilderness</i> and <i>remoteness</i>: stone pillars at the foot of trailheads with the name of the trail etched on its surface (Fig. 28). "By placing them this way, our hope is to create as little impact on the landscape and the atmosphere of the mountain[s] as possible, encouraging [visitors] to be safe and responsible at the same time (Snowdonia National Park Authority, 2013). These trail markers are visually appealing, would provide for the mountaineering experience as well as take into consideration visitor safety and accessibility concerns.  Figure 28. Stone Pillar Signage, Snowdonia National Park, North Wales Source: Snowdonia National Park Authority (2013)
Secondary Components Facilitated:	<i>Creative Opportunities: decision-making</i> <i>Catharsis: freedom</i>
Secondary Components Hindered:	<i>Challenge: mental challenge, adventure</i>

Table 6.12 Management Action Recommendation: Environmentally Responsible Alpine Huts

Title:	Environmentally Responsible Alpine Huts
Recommendation:	Alpine huts should operate in an environmentally responsible manner and be developed/retrofitted with the latest in sustainable backcountry technologies. Responsible practices by visitors in and around the huts should be encouraged.
Primary Components Facilitated:	<i>Engage with landscape, environmental consideration</i>
Type of Management:	Site Management and Environmental Concern
Description and Considerations for Management:	The Mountain Parks are currently collaborating with the ACC and Backcountry Energy Environmental Solutions (BEES) to develop and implement the most effective and cost efficient methods of managing alpine huts (BEES, 2012; The Alpine Club of Canada, 2014). BEES is non-profit initiative focused on exploring new solutions and is one of few organizations conducting research on the most effective backcountry solutions for environmentally-responsible energy and waste management systems. This

	recommendation advocates that this research be a priority for the Mountain Parks, that it continues to be conducted and that solutions be implemented and adapted in a coordinated manner. KIs extolled the virtues of alpine huts and emphasized how they support elements of <i>Context</i> by providing mountaineers with a sustainable way to <i>engage with the landscape</i> and to practice <i>environmental consideration</i>. They appreciated how huts allow environmental damage to be mollified by concentrating and controlling human use. They valued the environmentally sound management of black and gray water, especially in high use areas, and other benefits such as centralized cooking, water purification, the reduction of impact on wild camping areas and various responsible energy systems (The Alpine Club of Canada, 2014). BEES (2012) has recognized that there are cultural values closely linked to these types of solutions. Based on the KIs' enthusiasm, and the fact that ACC huts are often fully booked in summer, it can be assumed that the popularity of hut accommodation is increasing and the requirement for more environmentally conscious solutions will become a pressing issue for PC in the near future. The number of sustainable backcountry approaches is vast and criteria often dependent on hut location and surrounding environment, costs, access and health/safety (BEES, 2012). Specific recommendations go beyond the scope of this research. As in most of the recommendations, sustainable hut solutions should be implemented along with an information/education campaign. If there is no visitor support for these initiatives, their value will not be understood nor will they be used to their fullest potential as the success of these practices are dependent on proper visitor use. The development of a code of best practices, or Responsible Use, should be implemented and disseminated among mountaineering organizations (The Mountaineering Council of Scotland, 1996). Without this guidance, the sport will increasingly be "practiced in ways that are damaging to the environment" (Hanemann, 2000, p. 37).
Secondary Components Facilitated:	<i>Community: teamwork</i> <i>Catharsis: relief</i>
Secondary Components Hindered:	n/a

Table 6.13 Management Action Recommendation: Voluntary Area Closures

Title:	Voluntary Area Closures
Recommendation:	The implementation of voluntary area closures should be perpetuated in areas consistently closed due to wildlife concerns or for other conservation reasons.
Primary Components Facilitated:	<i>Wilderness experience, beauty, variety</i>
Type of Management:	Access Management
Description and Considerations for Management:	PC occasionally implements voluntary area closures in lieu of outright area closures, in recognition of the fact that visitors prefer them (Bunyan, 2011). When enforced in areas frequented by mountaineers, voluntary area closures allow mountaineers to experience <i>wilderness</i> and <i>beauty</i> because there are fewer other people who knowingly enter voluntarily closed areas, which suggests potentially less visual impact on the environment. These closures also allow mountaineers to experience more variety, as more terrain is

	open to them. Managers would have to be cognizant of how many users access the area to ensure that the primary reason for the closure is still observed. Signage at entrance points to these areas, indicating the sensitive nature of the landscape and reason for the closure, would be a good way to improve knowledge. Jasper NP Backcountry Guidelines state that temporary closures should only be used “when necessary for public safety (avalanches, aggressive wildlife), to protect sensitive natural or cultural resources or to allow site recuperation”. If they are to be implemented, the public should be well informed of “the reason for these actions as quickly as possible” and areas should only be permanently or voluntarily closed after consultation with the public. (Parks Canada, 2008a, p. 69).
Secondary Components Facilitated:	<i>Control: sense of control</i> <i>Creative Opportunities: decision-making, discovery</i> <i>Catharsis: freedom, solitude</i>
Secondary Components Hindered:	n/a

6.4.1.5 Creative Opportunities

Table 6.14 Management Action Recommendation: Dashboard Information Hub

Title:	Dashboard Information Hub (PC Online VS Info)
Recommendation:	Information related to mountaineering trip planning and safety information should be presented online in a Dashboard hub format.
Primary Components Facilitated:	<i>Learning process, decision-making, stimulating, learning process, curiosity discovery</i>
Type of Management:	Communication and Engagement
Description and Considerations for Management:	This recommendation is based on a concept presented by Walker (2012b). Her online Dashboard information hub was designed to provide information about cross-country skiing, however this style of information campaign could be extrapolated to mountaineering. It should include the links to following: route conditions, approach trail conditions, closures information, permitting information, mountain safety, mountaineering best practices, PC avalanche reports, MCR reports, alpine hut availability, gear rental, guide hire, emergency contact info, and weather. PC Mountain Safety details much of this information on a series of separate website pages but the data suggests that having access to this information all in one place during trip planning would be more beneficial to Intermediates. Beyond the factual information provided, the Dashboard should promote the Mountain Parks as mountaineering destinations, to “encourage visitor interest in and excitement about coming to the Park to [mountaineer], and to manage expectations to ensure a high-quality experience” (Walker, 2012b). By providing this information to Intermediates, PC could allow mountaineers to experience <i>Creative Opportunities</i>. This style of information campaign is rooted in the third postulate of the communication theory: the peripheral route to persuasion. It states that to successfully transmit messages to visitors and influence their behaviour, the message source and medium should be highlighted. Dyck et al. (2003) discovered that information and messages specifically tailored for mountaineers have greater impact than generic ones for all visitors. This information will also be more effective if delivered during pre-trip planning as many already do online research prior to their trips (Manning, 2003). Managers must be aware of providing too much information as this can negatively impact <i>discovery</i> (Hammitt & Cole, 1987). Most of the KIs, however, suggested that the more information they had, the better. It was only the Mountain Guides who did not want to have lots of information before setting out.
Secondary Components Facilitated:	<i>Control: independence, self-reliance</i> <i>Community: sense of community, sharing, tick lists</i> <i>Context: variety</i>
Secondary Components Hindered:	n/a

Table 6.15 Management Action Recommendation: Route Selector Chart

Title:	Route Selector Chart
Recommendation:	During mountaineers' trip planning stages, they should be introduced to route selector charts or "Which peak is right for you?" signs in order to be better matched to appropriate mountaineering opportunities.
Primary Components Facilitated:	<i>Decision-making, stimulating, discovery</i>
Type of Management:	Communication and Engagement
Description and Considerations for Management:	<i>Decision-making</i> was shown to be one of the top five most important components of the Intermediate mountaineering experience. This does not solely refer to the decisions made during the actual climbing, but also to those decisions made during the pre-trip planning stages. Krumpe and Brown (1982) developed a trail selector chart in a decision-tree format for lightly used trails in Yellowstone NP (Fig. 29). Designed originally as a method of redistributing visitors in high use areas, it gave information on backcountry trails with different qualities to help visitors choose the one that most closely matched their abilities and desires. They found that the visitors considered the chart helpful and that descriptive information about the trails helped redistribute visitors to less busy trails (Marion & Reid, 2007). This type of chart could be provided to mountaineers at the Guides' Office or on the online Dashboard Information Hub. This would be especially important for Intermediates who indicated that they wanted as much information to help them plan their trip as possible. It could also introduce them to new opportunities. Another similar example is that of a mountain biking trail selector and information signs, spotted in Moel Famau Country Park in the Clwydian Mountains of North Wales, UK (Fig. 30). This sign indicates the level of difficulty of the adjacent mountain biking trail and then lists elements of each level of trail and the fitness required to accomplish it. This type of sign would likely not be welcomed in deep backcountry areas, but at trailheads in high use areas for mountaineers or where numerous easier routes exist, it might be quite informative and avoid those unprepared climbers from requiring rescue. Management that matches participant skills with suitable settings prevents risk, preserves the mountaineering experience and delivers opportunities to achieve optimal experience (Delle Fave et al., 2003). Figure 30 shows that the sign also provides a code of ethics for mountain biking. <i>Decision-making</i> is associated to <i>stimulating</i> experiences, which can cause changes in behaviour (Fiske & Maddi, 1961). PC could direct these changes to the Parks' benefit like redistributing use in congested areas. The <i>7Cs of the Mountaineering Experience</i> and PC's EQ Types could be used to guide managers on what aspects of mountaineering to emphasize in order to attract more visitors. Both of these frameworks will help to match mountaineers to appropriate opportunities, allowing them to achieve more fulfilling experiences.

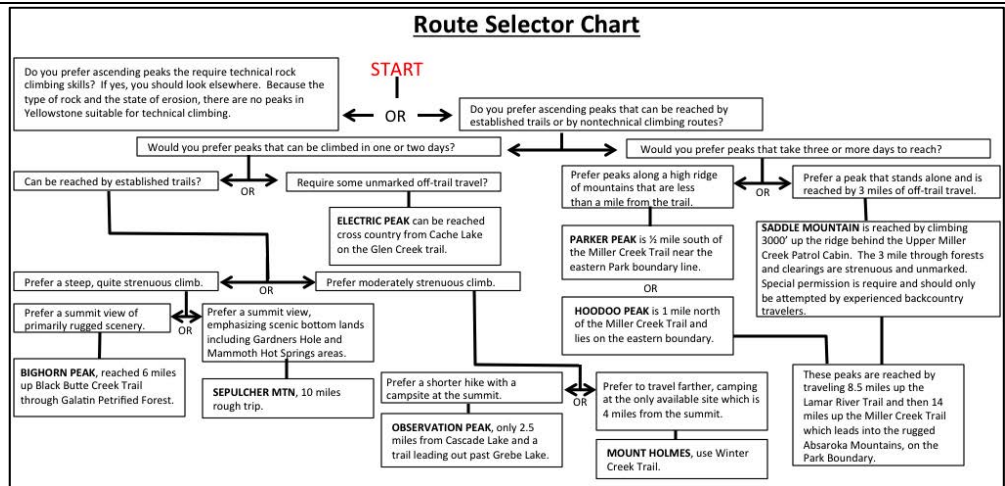


Figure 29. Route Selector Chart for Selecting Trails in Yellowstone National Park
Adapted from Krumpe and Brown (1982)



Figure 30. Mountain Biking Route Selector Chart in Moel Famau Country Park, North Wales, UK
Photo: M. Benjamin

Secondary Components Facilitated:

Challenge: fulfillment
Control: sense of control
Community: recognition
Context: variety
Chrysalis: confidence, sense of identification

Secondary Components Hindered:

n/a

6.4.1.6 Catharsis

Table 6.16 Management Action Recommendation: Area and Tent Quotas

Title:	Area and Tent Quotas
Recommendation:	The Mountain Parks should adopt and implement the BOS wherein area and tent quotas are outlined and established in the Parks according to the type of activities conducted there, what visitors would like to achieve there and the resultant effects on the environment.
Primary Components Facilitated:	<i>Relief, escape, solitude</i>
Type of Management:	Site Management and Environmental Concern
Description and Considerations for Management:	Jasper NP currently implements a system of area and tent quotas according to their BOS. Despite being described by the Intermediates as unfavorable and limiting freedom in wildland areas, area and tent quotas facilitate other components of the experience including <i>relief, escape</i> and <i>solitude</i>. Given that <i>solitude</i> was one of the top five important elements to the mountaineering experience, its facilitation should be a priority for managers. In high use areas, changes to the amount of allowed use will usually limit the number of impacted sites more than they will restrain the severity of impact on individual sites (Hammit & Cole, 1987). However, it is ill advised to implement strict tent and area quotas everywhere because that could cause knock-on effects at other sites. Therefore, as has been done in Jasper NP, research should be conducted on where mountaineers most frequently overnight. In high-use areas, a limit should be placed on the number of person nights allowed at each site to prevent areas and campgrounds from becoming increasingly crowded.
Secondary Components Facilitated:	Context: wilderness experience, tranquility
Secondary Components Hindered:	<i>Control: sense of control, the "unknown"</i> <i>Catharsis: freedom</i>

6.4.1.7 Chrysalis

Table 6.17 Management Action Recommendation: Promote the Full Mountaineering Experience

Title:	Promote the Full Mountaineering Experience
Recommendation:	Mountaineers (prospective and current) should be advised of the rewards of the mountaineering experience, both intrinsic and extrinsic, to ensure a more complete, inspiring and varied experience and to develop a deeper connection to the landscape and themselves.
Primary Components Facilitated:	<i>Therapeutic, spiritual/emotional connection, self-discovery, confidence, sense of identification, enhancement of life</i>
Type of Management:	Communication and Engagement
Description and Considerations for Management:	“Educate people about the joy of it all...If we are better educated about the type of experiences we can have, we have better experiences” (Scott, 2011). In order to encourage compliance to park rules and regulations, Manning (2003) indicates that education campaigns based on the moral development of visitors can emphasize the rationale for compliant behaviours as opposed to solely the punishments for non-compliance. If the intrinsic rewards of compliance can be emphasized, it is assumed that an educational campaign highlighting the intrinsic rewards of participation would also be effective. PC does not currently promote the “full mountaineering experience” in any structured way. If mountaineers were provided with training and education on different sites that match their abilities, ways of forming a deeper connection with the landscape and with comrades, the merits of introspection and mountaineering best practices, parks’ management could accomplish multiple goals at once, including maintaining the risk of the setting (Delle Fave et al., 2003). The Mountain Guides affirmed that part of their responsibilities is to educate their clients about the “complete experience of mountaineering and climbing...the history, the flora and fauna on these routes” (Nelhams, 2011) and that the inclusion of these elements only serve to enhance their clients’ deeper connection to their surroundings. The <i>7Cs of the Mountaineering Experience</i> and PC’s EQ Types could be used to guide managers on what aspects of mountaineering to emphasize in order to attract more visitors. Both of these frameworks will help to match mountaineers to appropriate opportunities, allowing them to achieve more fulfilling experiences. This recommendation is aligned with Ewert and Hollenhorst (1997) concepts on marketing the “full experience”. They recommend the following for managers: 1) consider all of the elements of the experience, including the intrinsic elements 2) develop training packages suitable for mountaineers and 3) emphasize the parks’ service and opportunity for quality experiences (p. 25).
Secondary Components Facilitated:	<i>Challenge: excitement, fulfillment</i> <i>Community: sharing, recognition</i> <i>Context: engage with landscape, variety</i> <i>Creative Opportunities: learning process, stimulating, curiosity, discovery, historical connection</i>
Secondary Components Hindered:	n/a

6.4.1.8 Summary

Table 6.18, 6.19 and 6.20 below provides a summary of recommended management actions and indicates which components of the 7Cs they facilitate and hinder.

Table 6.18 Access Management Recommendations and their Effects on the 7Cs

Access Management Recommendations	7Cs of the Mountaineering Experience																												
	CHALLENGE					CONTROL				COMMUNITY				CONTEXT					CREATIVE OPPORTUNITIES				CATHARSIS				CHRYSLIS		
	Mental/Physical challenge	Excitement, Exhilaration, Adventure, Happiness, Adrenaline High, Fun	Physical act, Skill mastery, Technical Difficulty	Accomplishment, Fulfillment, Reward	Deprivation, Hardship Primitiveness	Sense of control, Self-reliance, Independence, Lack of rules/regs	Unknown, Vulnerability Uncertainty	Focus, Engagement, Flow	Consequences, Commitment, Danger, Risk, Mortality, Fear	Sense of Community, Friendship, Camaraderie, Sharing, Teamwork	Uniqueness	Elevation gain, tick lists	Mentorship, Recognition, Competition	Wilderness experience, Engage with landscape, Environmental consideration	Scenery, Beauty, Geography	Remoteness	Peace, Tranquility	Variety	Problem solving, Complexity, Decision-making, Learning Process	Captures imagination, Curiosity, Stimulating	Discovery, Exploration	Historical connection	Mindlessness, Simplification	Relief, Relaxation, Escape	Liberty, Freedom	Solitude	Therapeutic, Spiritual/emotional connection, Self-discovery	Confidence, Self-esteem, sense of Identification	Affirmation, enhancement of life
Rogers Pass Permit System				+		+		+	+			+		+				+	+		+		+		-				
Party-size Restriction Permits			+			+		+		+	+			+					+						-	+			
Long Walk-in	+				+	-			+					+	+	+		+			+					+			
Voluntary Area Closures						+								+	+			+	+		+				+	+			
Alpine Hut System						-				+	+		+	+			+					+		+		+		+	

Note that not all the components are listed under the 7Cs due to table space limitations

Table 6.19 Site Management and Environmental Concern Recommendations and their Effects on the 7Cs

Site Management and Environmental Concern Recommendations	7Cs of the Mountaineering Experience																												
	CHALLENGE					CONTROL				COMMUNITY				CONTEXT					CREATIVE OPPORTUNITIES				CATHARSIS				CHRYSLIS		
	Mental/Physical challenge	Excitement, Exhilaration, Adventure, Happiness, Adrenaline High, Fun	Physical act, Skill Mastery, Technical Difficulty	Accomplishment, Fulfillment, Reward	Deprivation, Hardship Primitiveness	Sense of control, Self-reliance, Independence, Lack of rules/regs	Unknown, Vulnerability Uncertainty	Focus, Engagement, Flow	Consequences, Commitment, Danger, Risk, Mortality, Fear	Sense of Community, Friendship, Camaraderie, Sharing, Teamwork	Uniqueness	Elevation gain, tick lists	Mentorship, Recognition, Competition	Wilderness experience, Engage with landscape, Environmental consideration	Scenery, Beauty, Geography	Remoteness	Peace, Tranquility	Variety	Problem solving, Complexity, Decision-making, Learning Process	Captures imagination, Curiosity, Stimulating	Discovery, Exploration	Historical connection	Mindlessness, Simplification	Relief, Relaxation, Escape	Liberty, Freedom	Solitude	Therapeutic, Spiritual/emotional connection, Self-discovery	Confidence, Self-esteem, sense of Identification	Affirmation, enhancement of life
Carry-out Backcountry Waste Management					+								+	+	+									+	+				
Limited Approach Trail Management	+		+		+				+				+	+	+					+									
Area and Tent Quotas						-	-						+			+								+	-	+			
Minimal Signage	-	-											+	+	+			+							+				
Enviro-Responsible Alpine Huts										+				+	+									+					

Note that not all the components are listed under the 7Cs due to table space limitations

Table 6.20 Communication and Engagement Recommendations and their Effects on the 7Cs

Communication and Engagement Recommendations	7Cs of the Mountaineering Experience																															
	CHALLENGE					CONTROL				COMMUNITY				CONTEXT					CREATIVE OPPORTUNITIES				CATHARSIS				CHRYSLIS					
	Mental/Physical challenge	Excitement, Exhilaration, Adventure, Happiness, Adrenaline High, Fun	Physical act, Skill Mastery, Technical Difficulty	Accomplishment, Fulfillment, Reward	Deprivation, Hardship	Primitiveness	Sense of control, Self-reliance, Independence, Lack of rules/regs	Unknown, Vulnerability	Uncertainty	Focus, Engagement, Flow	Consequences, Commitment, Danger, Risk, Mortality, Fear	Sense of Community, Friendship, Camaraderie, Sharing, Teamwork	Uniqueness	Elevation gain, tick lists	Mentorship, Recognition, Competition	Wilderness experience, Engage with landscape, Environmental consideration	Scenery, Beauty, Geography	Remoteness	Peace, Tranquility	Variety	Problem solving, Complexity, Decision-making, Learning Process	Captures imagination, Curiosity, Stimulating	Discovery, Exploration	Historical connection	Mindlessness, Simplification	Relief, Relaxation, Escape	Liberty, Freedom	Solitude	Therapeutic, Spiritual/emotional connection, Self-discovery	Confidence, Self-esteem, sense of Identification	Affirmation, enhancement of life	
Guide’s Office		+				+					+	+	+	+						+	+	+	+	+						+		
Dashboard Information Hub						+					+		+							+	+	+	+									
Visitor Safety Info Sessions/Workshops						+					+		+	+						+	+	+								+		
Promotion of Responsible Use		+		+		+	+			+	+					+	+				+		+		+	+	+					
Route Selector Chart				+		+								+						+	+	+	+							+		
Promotion of the Full Experience		+		+							+				+	+				+	+	+	+	+						+	+	+

Note that not all the components are listed under the 7Cs due to table space limitations

6.4.2 Management Enablers

As previously stated, Management Enablers are tools that assist PC managers in achieving the goals laid out by their dual-mandate: the protection and conservation of park resources and the provision of high quality recreational mountaineering opportunities for visitors. The following tables list and describe the Management Enabler recommendations.

Table 6.21 Management Enabler Recommendation: Outdoor Access Forum and Core Paths Plan

Title:	Outdoor Access Forum and Core Paths Plan
Recommendation:	PC managers should employ public forums to help develop visitor access plans and direct their management efforts.
Enables:	Access Management goals
Description and Considerations for Management:	Opportunities for public involvement, similar to CNP's Outdoor Access Forum and related Core Paths Plan, would effectively enable access management goals in the Mountain Parks. Visitor involvement in the design of recreation access has been successful in the provision of satisfying visitor experiences in CNP other areas that employ similar tactics, such as the Bob Marshall Wilderness Area in the Rocky Mountains (Manning, 2004; Potthecary, 2011). Jasper NP currently consults the public concerning quotas and management techniques (Parks Canada, 2008a). KIs indicated their keen interest in being involved in these types of processes as they felt that they would assist managers in developing a better understanding of mountaineering values. To discover which areas mountaineers frequent, a formal planning process, like the Core Paths Plan, would also be beneficial. Although VS Specialists have good anecdotal knowledge of these areas, use patterns are ever-changing as a result of transitional value judgements and motivations of users (Ewert, 1985). The Core Paths Plan would allow managers to be aware of the most current patterns of use behaviour and thus better accommodate their safety programs, resource protection and ecological integrity maintenance efforts.

Table 6.22 Management Enabler Recommendation: The Area Concept

Title:	The Area Concept
Recommendation:	In lieu of a zoning system, an Area Concept should be implemented in the Mountain Parks as a method of backcountry management: areas with distinct landscape characteristics, user activities, access concerns and management problems should be selected and grouped in order to target management at specific goals.
Enables:	Access Management, Site Management and Environmental Concern goals
Description and Considerations for Management:	As discussed, the majority of Mountain Parks use a zoning system to delineate areas of the park for differing levels of management and intervention in the landscape. In Banff and Jasper NPs, however, Zone II Wilderness accounts for approximately 96% of park land. This suggests that this zoning system may not be precise enough to accommodate the multitude of users' desires (i.e. the 7Cs) and the requirements of PC's dual mandate. Bunyan (2011)'s 'Area Concept' recommended that adjacent, comparable areas of the park be managed as singular units (e.g. the Wapta Traverse), simplifying management of areas that span different zones and field units. Given that changes in motivations, desires and expectations are driven by the mountaineer's level of specialization, overarching uniform management policies and recreation opportunities are not in the mountaineer's best interest (Ewert, 1985). It has been shown that to maximize user satisfaction, mountaineers should be matched to appropriate activity settings (Delle Fave et al., 2003; Pomfret, 2006). This then means that multiple activity settings and opportunities must be provided. CNP's

	Action Areas have been thus far effective at targeting these desired opportunities by avoiding the application of homogeneous management actions and policies. Splitting the Mountain Parks land into smaller more manageable nodes would also enable managers to identify conflict between users and minimize the degradation of fragile mountain resources (Nepal & Chipeniuk, 2005). This recommendation would be complimented by a Mountaineering Opportunity Spectrum (Dyck et al., 2003), similar to Jasper NP's BOS. If developed within each of the areas, it would assist managers in deciding which opportunities to offer in area location. In addition, it would help mountaineers to identify which area best suits their optimal experience. Managers would have to be cognizant of changing trends in backcountry use.
--	---

Table 6.23 Management Enabler Recommendation: Communication

Title:	Communication
Recommendation:	Information and education campaigns should be improved with the use of the following communication techniques.
Enables:	Communication and Engagement goals
Description and Considerations for Management:	Transparent and clear communication with mountaineers will assist managers in achieving their goals for visitor compliance and understanding, and “can help managers identify the recreation preferences of diverse groups, obtain support for plans and programs, enhance visitor enjoyment through interpretation, add to [visitors’] educational experience...reduce resource impact and visitor conflicts in recreation settings” (Bright, 1994, p. 48) and direct mountaineers to appropriate opportunities. A pervasive theme throughout the KI interviews was the desire for improved communication with PC. The following are tips for effective communication with mountaineers (Bright, 1994; Dyck et al., 2003; Manning, 2003; Marion & Reid, 2007): • Use simply worded messages on signs, brochures and online media (Don’t use “Parks speak” as one Intermediate put it) • Use a variety of media to increase message absorption (The Intermediates appreciated the multi-media format of the Rogers Pass Permit System) • Develop information/education programs that consider the beliefs, images and values of the intended audience • Attempt to affect the norms of mountaineering behaviour by encouraging mentorship and best practices • Use non-agency media that is aligned with park mandates (e.g. material produced by ACC, ACMG, MCofS, other outfitters and guides, outdoor stores, guidebooks etc.) • Deliver the most important messages during pre-trip planning • Information passed on through personal contact is often preferred by mountaineers These recommendations could improve the way information is transmitted at the Guides’ Office, the VS Information Sessions, and by the Route Selector.

Table 6.24 Management Enabler Recommendation: Collaboration and Mentorship

Title:	Collaboration and Mentorship
Recommendation:	Mountain Parks management should aim to enhance their cooperation with the ACC, ACMG, various local commercial guides and other stakeholders to facilitate the mountaineering experience and ensure that it is undertaken in an ethical manner that meets PC’s dual mandate.

Enables:	Communication and Engagement goals
Description and Considerations for Management:	Collaboration with outside organizations is a recommendation often cited for the improvement of all recreation management and is not necessarily specific to the management of mountaineering (Pomfret, 2006). However, it was a prevalent theme discussed by PC managers, Mountain Guides, Interest Groups and SMEs. Most of the PC managers recognized that there are plenty of opportunities for coordinated efforts with other organizations that are not being seized. The relationship between CNP and its stakeholders is a prime example of the type of collaboration that PC should aim for. The UIAA recommends that parks attempt to build relationships with interest groups, such as mountaineering and climbing clubs (e.g. ACC, MCofS) and that they aim to integrate environmental education into mountain guide training programs (UIAA, 1997). These organizations generally focus on the positive ethic of the sport and this should be recognized as a contributing factor in sustainable recreation practices. They can disseminate information on Park rules and regulations as well as opportunities to achieve the optimal mountaineering experience. Commercial guides can also be trained to pass on information on best practices (Manning, 2003) and often enjoy contributing to the well-being of the park (Nelhams, 2011). "Recreation administrators need to look beyond their boundaries and partner with nonprofit and activity specific groups, to disseminate [messages]. Many nonprofit and for-profit mountaineering organizations/schools work in an education and safety capacity" (Dyck et al., 2003). If clubs and guides are included in the management of mountaineering areas, their members are more likely to accept the principles followed by the managing organization. Mentorship is also an important tool in the achievement of communication and engagement management goals. It goes hand in hand with collaboration with outside agencies. Mountaineering usually requires "a progressively specialized set of skills and knowledge" (Dyck et al., 2003, p. 60). Climbing schools, like the International School of Mountaineering (ISM), can integrate responsible practices and knowledge of the Mountain Parks, into their instruction of beginner and intermediate mountaineers. Information on park regulations, passed on by a commercial guide, can have more impact and generate more acceptance than those delivered by parks staff (Manning 2012). Guides and climbing schools would have to be educated about appropriate practices in the parks.

Table 6.25 Management Enabler Recommendation: Visitor Classification Systems

Title:	Visitor Classification Systems
Recommendation:	The Mountain Parks should use databases about visitor motivations, desires and expectations (e.g. <i>The 7Cs of the Mountaineering Experience</i> , EQ Types) to design, improve and implement visitor experience opportunities.
Enables:	Communication and Engagement goals
Description and Considerations for Management:	Information on users' motivations, desires and expectations can help PC VE managers to develop the variety and quality of visitor experience opportunities. However, Manning (2011) indicates that this type of information has many more applications including monitoring activity use, designing infrastructure, planning budgets and conducting information/education workshops. In order to achieve these goals, Bright (1994) and Marion and Reid (2007) suggest that managers must consider the specialization of the recreationists (e.g. elements of the mountaineering experience must be taken into consideration – blanket backcountry user profiles would be ineffective). Managers must also be aware that recreation motivations are dynamic and are changing rapidly thus information on users must be gathered on a regular basis in order to monitor trends (Manning, 2001). Jasper NP backcountry guidelines recognize this need and state, "To improve Parks Canada's understanding of visitor use and improve decision-making,

	establish a data base about visitors that: focuses on the priority research needs including levels of use, visitor preferences and satisfaction..." (Parks Canada, 2008a, p. 69) and that the tourism industry, academic institutions and other appropriate partners should be involved in the development of such a database.
--	--

6.5 Other Recommendations Considered

There are several management actions commonly used in the management of recreational mountaineering that were excluded from the list of recommendations. The reasons for their intentional exclusion are worth mentioning because of their prominence in recreation management literature and current use in various mountaineering locations. For example, merit systems and fixed itineraries are often used to control environmental and social impacts in parks with high-use mountaineering sites. Merit systems offer a limited number of permits to access popular sites to mountaineers who are the most prepared and who value the permit most. This type of use rationing system is successful at reducing environmental degradation and improving solitude and is currently in place on Mount McKinley in Denali NP, Alaska. Fixed itineraries obligate mountaineers to decide on their trip plans prior to departing, and to stick to them, thus avoiding impacts from climbers overnighing in one location too long, and improving dispersal of climbers along a route. Glacier, Yellowstone and Mountain Rainier NPs currently employ fixed itineraries for a variety of recreational users. However, administration costs for these types of system can be high, vigilant enforcement is necessary, and solid statistical information on climbers is key to their effective implementation (number of climbers who want access each year, their objectives, how much they are willing to pay for a permit etc.) (Hammitt & Cole, 1987; Manning & Anderson, 2012). Although they were considered, there are several reasons why these management actions were not recommended: 1) these systems would likely negatively impact several of the 7Cs including *Creative Opportunities*, *Catharsis* and *Control*, 2) it is unlikely that many of the peaks in the Mountain Parks attract the same volume of climbers as the US NPs above, 3) the high administrative costs and requirement for constant enforcement would likely be unappealing to PC managers and 4) currently, PC does not collect information on mountaineering usage in the Mountain Parks.

Fines for non-compliance were originally included in the list of recommendations. However, because PC already employs these and many of the KIs blatantly admitted to breaking the rules despite the threat of a fine from park wardens, their inclusion seemed unproductive. The financial consequences of non-compliance did not seem to faze the majority of the

Intermediates. Instead, it would appear that the improved communication of rules and regulations would be more effective.

Finally, installations and uplift were excluded from my recommendations despite their popularity in the Alps. The KIs vehemently opposed these types of intervention in the Mountain Parks landscape for safety and solitude reasons and they felt their inclusion in the landscape would threaten the *wilderness experience* they have come to expect in the Rockies. Originally designed to preserve the safety of mountaineers on difficult routes in the Alps, the Himalayas, the Andes and popular peaks like Mount McKinley, the KIs felt that the enhanced security and convenient access might encourage less skilled mountaineers to pursue routes they are not prepared for. Moreover, the Intermediates felt that this type of intervention undermines the very essence of the sport. Ewert (1994), Delle Fave et al. (2003) and Johnston and Edwards (1994) recommend instead that managers keep things risky for mountaineers.

6.6 Barriers to Implementation

This research identified certain barriers to the inclusion of mountaineers' motivations, desires and expectations in recreation management plans in the Mountain Parks, as well as obstacles to the overall provision of the optimal mountaineering experience:

- 1) PC staff often contradicted each other and aside from the staff who regularly use the backcountry, many were not “on the same page” or aware of the desired mountaineering experience. It would appear that departments are insulated and compartmentalized and do not always have the facility to share ideas and information. In order to function properly, departments must be integrated (Manning, 2004).
- 2) Due to a lack of resources and knowledge of detailed experiential motivations, some PC VE staff exhibited apathy for and misconceptions about the mountaineer's backcountry experience. The mountaineering experience was described as a low priority for PC, and the following assumptions were made by some staff: there are very few mountaineering visitors, they do not require anything from PC management and they do not disrupt nor contribute to the ecological integrity of the environment. In direct contrast to these beliefs, the VS staff indicated that mountaineering and climbing numbers are, in fact, increasing; the KIs indicated that they do desire some accommodation in management for their experience and it has been well documented that if practiced unethically, mountaineering can have significant impacts on the landscape. “Those who participate in mountain recreation develop long-term

relationships with their landscapes, they are active participants in the mountain space, with a long history as a distinct, niche community and thus are excellent candidates to understand and appreciate the need for a sustainable approach to mountaineering (Johnston & Edwards, 1994, p. 459). If PC were to acknowledge mountaineers in planning, they could be developed into stewards for the parks.

- 3) Collaborative efforts between PC and outside agencies, like the ACC, could be improved. The communication channels are already in place for PC to work with these organizations – they just need to be used.
- 4) The mountaineers had the perception that “management of the experience” suggested some sort of negative interference by PC. They resisted the notion that management could facilitate their experience and was not necessarily damaging to the 7Cs. Effective information and education campaigns can assist in rectifying these biases.
- 5) Finally, the inherent paradoxical nature of mountaineering itself could act as a barrier to mountaineers’ achievement of their optimal experience. From denying that they need any recognition from parks management planning, yet admitting their love of infrastructure, to desiring solitude but longing for deep connections to comrades, they are full of personal contradictions. Recreation management, however, will not affect these internal tensions; rather, they are the responsibility of the mountaineer to negotiate and accept.

6.7 Summary

The common thread that runs between the recommended management actions and enablers is the requirement for managers to understand the complexities of mountaineers’ motivations, to know how to communicate with them, and to comprehend the cumulative effects of management actions on the experience. If the 7Cs are used a framework for management of the mountaineering experience in the Mountain Parks, in conjunction with the implementation of the management actions recommended here, managers have a good chance at meeting the challenges of their dual mandate: maintaining ecological integrity while providing for the optimal mountaineering experience. PC has the opportunity to cultivate intermediate mountaineers as practitioners of ethical climbing, and as stewards for the parks. This, it would seem, is a stepping-stone to broader and richer enjoyment of, and appreciation for, the parks.

Chapter 7 Conclusion and Implications for Future Research

Thousands of tired, nerve-shaken, over-civilized people are beginning to find out that going to the mountains is going home; that wildness is a necessity; and that mountain parks and reservations are useful not only as fountains of timber and irrigating rivers, but as fountains of life (Muir, 1901, p. 1).

While the quotation cited above spoke largely for the elite or privileged few of a century ago, mountaineering has now been deemed to be “the property of the man on the street” (Scott, 2000, p. 167). Recently, an apparent widespread quest for adventure recreation activities in the backcountry, and specifically mountaineering, has led us to an obstructed view of those same “fountains of life”. Access issues (e.g., crowding, non-compliance with park rules and regulations, infrastructure developments, loss of wilderness) are due in part to an increasing number of new and inexperienced mountaineers and ski mountaineers. This, in turn, has resulted in environmental degradation and life-threatening situations which require the attention of agency managers (Scott, 2000).

Even during the course of this research, mountaineering has been the lead story on many international media sites. Rees’ “Woo-hoo factor” is apparent on video sharing websites where clips of mountaineers, climbers and ski mountaineers attempting ever-riskier objectives are displayed. Although loathe to discuss Mount Everest, as it falls outside the parameters of this study and the mountaineering experience does not match the wilderness experienced desired by the KIs, it must be noted that since 2009, 47 people died while attempting the infamous summit (including 16 Sherpas during an avalanche in April of 2014). Management policies on Everest, including restrictions, permit fees, quotas, enforcement and changes to ‘guide to client’ ratios are currently undergoing significant modifications (Khadka, 2013). Ewert and Hollenhorst (1997) state, however, that accidents, new restrictions and their implications for wilderness do not appear to have decreased business for adventure travel providers – quite the opposite. Mountaineering and its associated impacts have become an issue of a significant concern.

While the number of people participating in recreational mountaineering continues to increase, their expectations are evolving and expanding. Land managers need to be aware of the motivational changes and the resultant environmental impacts as implications for management, so that mountaineering sites can be better managed to allow for greater control, use and socialization opportunities (Ewert, 1985). “Managers must never forget the interests and desires of their recreational clientele” (Hammit & Cole, 1987, p. 244).

7.1 Objectives

The first objective of this research was to develop a list of critical factors of the mountaineering experience (i.e., factors that influence participation). These factors outline the desires, expectations and motivations of mountaineers and were designed to allow for integration into park management planning processes. The 7Cs are a thorough representation of experiential factors for intermediate mountaineers based on their alignment with the academic literature, narrative literature and their validation by the KI interviews. Although some of the critical factors of mountaineering appear to be little changed since the 1800s, it must be acknowledged that some of the desires of mountaineers are likely to transform as the sport continues to evolve. Managers must be aware of the fluidity of the factors that influence recreation participation and adapt to their visitors' shifting desires and expectations, within the context of the dual-mandate.

The second objective of this research was to apply the 7Cs to an assessment of management practices at specific mountaineering locations (Canadian Mountain Parks, CNP in the Scottish Highlands and the French/Swiss Alps) in order to determine how current social, environmental and managerial conditions affect the mountaineering experience. The three study sites were ranked according to effectiveness in providing for the optimal experience. CNP's ranking was excellent, the Mountain Parks' adequate and the Swiss and French Alps' poor.

The Mountain Parks have the infrastructure and management systems in place to become the quintessential mountaineering destination for intermediates. PC has the management structure and staff capability to provide the education/information campaigns that would support this desired experience. PC has mandated control of the landscape to prevent it from being overcrowded and environmentally damaged. Finally, PC has pre-existing connections with stakeholders and interested outside organizations (e.g., ACC, ACMG) that can be strengthened to achieve mutual goals. Mountaineers in the Mountain Parks, already beneficiaries of natural beauty, space, and variety in terrain, would further benefit from the management actions recommended in Chapter Six. The final objective of this research was to identify recommendations for the practical management of mountaineering in the Mountain Parks, based on the 7Cs. Due to the significant number of recommendations that were developed, I have ranked them by three measures.

7.1.1 Top 5 Recommendations for the Provision of the Mountaineering Experience

Table 7.1 shows the top five management actions recommended to facilitate the optimal mountaineering experience in the Mountain Parks. These recommendations represent the best

interests of the intermediate mountaineer. The management actions were ranked by the highest number of 7Cs facilitated, as well as the facilitation of the highest number of the top five most often mentioned components (*solitude, wilderness experience, sense of control, camaraderie and decision-making*).

Table 7.1 Top 5 Recommendations for the Provision of Mountaineering Experience

Rank	Management Action
1	Promote Responsible Use
2	Promote the Full Experience
3	Guides' Office
4	Party-size Restriction Permits
5	Alpine Hut System

7.1.2 Top 5 Recommendations for the Fulfillment of the Parks Canada Mandate

Below are the top five management actions that would allow PC to meet its mandate to:

...protect and present nationally significant examples of Canada's natural and cultural heritage, and foster public understanding, appreciation and enjoyment in ways that ensure the ecological and commemorative integrity of these places for present and future generations (Parks Canada, 2008c, p. 1).

Understanding, appreciation and enjoyment of the landscape is a state of mind – one that is fostered through knowledgeable guidance. It is believed that the best way for PC to facilitate this state of mind in mountaineering visitors is to encourage communication and engagement with experienced PC staff (e.g., VS specialists, interpreters and wardens) or experts in the field (e.g., mountain guides, ACC representatives). If the value and importance of the landscape and its ecological integrity is articulated and communicated, it is anticipated that mountaineers, through their own lasting connections to the landscape, will become stewards for the parks. The management actions were ranked by their capacity to engage and instruct mountaineers on their connection to their surrounding environment, and the top five were selected.

Table 7.2 Top 5 Recommendations for the Fulfillment of the Parks Canada Mandate

Rank	Management Action
1	Guides' Office
2	PC VS Information Sessions/Workshops
3	Rogers Pass Permit System
4	Promote Responsible Use
5	Promote the Full Experience

Of likely concern to PC is the required commitment of resources, both financial and personnel to implement the management actions. Thus, a list of the 'easiest' management

actions to implement (i.e., those that require the lowest commitment of resources) would be of value. Of the proposed recommendations, those describing systems already in place, or those requiring little in terms of on-the-ground management are likely the ‘easiest’ to implement. They include: Alpine Hut System, Voluntary Area Closures, Limited Trail Management, Minimal Signage and Area/Tent Quotas. Although these recommendations would facilitate the mountaineering experience to a degree, they are not the best of the options presented for the facilitation of the mountaineering experience or the fulfillment of the PC dual-mandate.

7.1.3 Overall Top 5 Recommendations

The overall top five recommendations to satisfy both the desires of the intermediate mountaineer and the requirements of the PC mandate are listed below. They take into consideration the facilitation of the 7Cs and PC’s responsibility to protect the resource while facilitating high-quality recreational experiences.

Table 7.3 Overall Top 5 Recommendations

Rank	Management Action
1	Rogers Pass Permit System
2	Guides’ Office
3	Promote Responsible Use
4	Promote the Full Experience
5	Alpine Hut System/Environmentally Responsible Alpine Huts

The Management Enablers have not been ranked because they should be consistent through the recreation management planning process (i.e., they represent generic best practices for recreation management).

7.2 Future Research

The effectiveness of outdoor recreation research will be enhanced by the extent to which managers and researchers communicate, understand and appreciate each other’s roles and processes (Manning, 2011, p. 343).

Based on the results of this study, there are several areas of research that could be further examined. Firstly, a formal stated choice analysis could be conducted as a method for managers to examine some of the judgments, tradeoffs and paradoxical desires exhibited by the KIs. As a decision-making model designed to assist managers in predicting how visitors think a park ought to be managed, rather than their preference for management, stated choice analysis would confirm that either intermediate mountaineers would rather experience *solitude* over *camaraderie*, or *sense of control* over *vulnerability*. The 7Cs outline the social, environmental

and managerial factors that influence mountaineering participation and a stated choice analysis would compliment this research so that these 7Cs could be evaluated against each other. PC managers could then use the results of this analysis to formulate standards of quality for mountaineering. This could perhaps make complex decisions about the sometimes-contradictory desires of mountaineers more manageable (Lawson & Manning, 2002).

Further research on the perceptions of low-impact practices should also be undertaken. Specialization levels among mountaineers could alter perceptions of recreational impacts (Dyck et al., 2003; Kuentzel & McDonald, 1992) and more in-depth examination would lead to success in the design and delivery of information/education campaigns recommended here. Successful education programs require a thorough understanding of their intended audience. The approach should be targeted towards dispelling misconceptions about low-impact mountaineering practices. Further research on the acceptable levels of change at mountaineering sites would facilitate their management and contribute to the above-mentioned research on the perception of environmental impacts (Hammitt & Cole, 1987).

Finally, an examination of other forms of adventure/risk recreation, using methods employed here would be helpful in determining if the 7Cs model can be applied elsewhere. Understanding mountaineers could provide some insight into how to understand other adventure recreationists.

7.3 Summary

This research showed that one of the barriers to understanding the mountaineering experience, and its subsequent integration into management planning, is an over-riding sense among PC staff interviewed that mountaineers are out of their purview: participant numbers are insignificant, they require little attention from management and, with the exception of some non-compliance, they do little to prevent PC from achieving its mandate. In actual fact, information on the number of mountaineers in the Mountain Parks is sporadic and often anecdotal. A system for reliable data collection has yet to be designed or implemented. Most of the academic literature indicates that parks and protected areas can expect to see an increase in adventure and backcountry recreation (e.g., an increase of 124% of ski mountaineers in Rogers Pass since 2009). Any preconception that their numbers will continue to be insignificant seems not to be realistic. Secondly, the extensive and complex list of experiential elements desired by mountaineers as developed in this research (i.e., 7Cs) disputes the bias that mountaineers require little from management. While mountaineers may, or may not engage in activities that prevent

PC from achieving its mandate, I propose that they be considered in a more proactive light: how can their presence contribute to the fulfillment of the PC mandate?

Wilderness experience is key to the mountaineer's enjoyment of the sport. Their concern for the environment and desire to participate in a sustainable way is markedly enhanced by others' observation of best practices, largely a result of community messages designed to instill environmental respect. Additionally, the tight-knit social structure of the group that favours mentorship, self-policing and reflection encourages responsible recreation. A great deal of time can be spent in the mountains while on expedition; mountaineers disengage from the outside world and experience a protracted connection to their ever-changing environments. These were among the first non-native pioneers through the Rocky Mountains and based on the apparent longevity of this sport, their forays are unlikely to end any time soon. They yearn to experience the rhythms of their natural surroundings, to escape the monotony and chaos of daily life, to revel in the paradoxical complexities and simplicities of the mountains, and as a result, they develop a profound understanding of the virtues of time spent in the wilderness.

Thus, I propose that mountaineers be unveiled as a hidden asset, deserving of serious attention by park managers. Through effective communication and engagement practices, mountaineers can become active stewards for our parks. Their awareness of and relationship to the landscape, their comrades and themselves allow for both outward and introspective views of responsible use, sustainable practices and conservation as the final imperative. They represent a vital resource: one that PC can harness to benefit its dual-mandate. Their engagement as stewards for the parks would not only serve to enhance the mountaineering experience, but also to protect and preserve the ecological integrity of mountaineering sites. With recreationists seen as active participants in their landscapes and engaged as such, there will be less conflict between management and visitors, a greater mutual understanding of their respective responsibilities, motivations and expectations and the successful fulfillment of the once conflicting dual-mandate.

References

- Alpine Convention. (2010). *Alpine Convention Reference Guide* (2 ed.). Innsbruck, Austria and Bolzano-Bozen, Italy.
- Alpine Network of Protected Areas. (2013). *The Alpine Protected Areas* Retrieved Nov 20, 2012, from <http://www.alparc.org>
- Arksey, H., & Knight, P. (1999). *Interviewing for Social Scientists*. London: Sage Publications Ltd.
- Bartlett, P. (2005). Return to the Primitive. In M. Vause (Ed.), *Peering Over the Edge: The Philosophy of Mountaineering*. La Crescenta, CA: Mountain N'air Books.
- BEES. (2012). *Best Environmental Practices for Managing Energy, Water and Wastewater at Off-Grid Mountain Facilities*. In K. Rollins (Ed.). Canmore, AB: Backcountry Energy Environmental Solutions.
- Bisset, A. (Ed.) (2000) *The Canadian Oxford Paperback Dictionary*. Don Mills, ON: Oxford University Press.
- Bonington, C. (1973). *The Next Horizon*. London: Weidenfeld & Nicolson.
- Borrie, W. T., & Roggenbuck, J. W. (2001). The dynamic, emergent, and multi-phasic nature of on-site wilderness experiences. *Journal of Leisure Research*, 33(2), 202-228.
- Breivik, G. (1996). Personality, sensation seeking and risk taking among Everest climbers. *International Journal of Sport Psychology*, 27, 308-320.
- Bright, A. D. (1994). Information campaigns that enlighten and influence the public. *Parks and Recreation*, 29(8), 48+.
- Bryan, H. (1977). Leisure value systems and recreational specialization: The case of trout fishermen. *Journal of Leisure Research*, 9, 174-187.
- Bryman, A., & Burgess, R. G. (Eds.). (1999). *Qualitative Research* (Vol. 1). London: Sage Publications Ltd.
- Bunyan, R. (2011, 13 Dec). [Key Informant Interview: Parks Canada Backcountry Visitor Experience Manager].
- Burdge, R. J., & Field, D. R. (1988). A statement of editorial policy and content. *Society & Natural Resources*, 1(1), 1-3.
- Butler, J. R. (1993). Interpretation as a Management Tool. In P. Dearden & R. Rollins (Eds.), *Parks and Protected Areas in Canada: Planning and Management*. Toronto: Oxford University Press.

- Cairngorm Mountain Rescue Team. (2008). Cairngorm Mountain Rescue Team Retrieved 08 Feb, 2014, from <http://www.cmrt.org.uk/index.htm>
- Cairngorms National Park Authority. (2007a). *Cairngorms National Park Plan 2007*. Grantown-on-Spey, Scotland: Cairngorms National Park Authority.
- Cairngorms National Park Authority. (2007b). *Enjoying the Cairngorms: Cairngorms National Park Outdoor Access Strategy 2007-2012*. Grantown-on-Spey, Scotland: Cairngorms National Park Authority.
- Cairngorms National Park Authority. (2008). *Sharing the stories of the Cairngorms National Park: A guide to interpreting the area's distinct character and coherent identity*. Cairngorms National Park, Scotland: Cairngorms National Park Authority.
- Cairngorms National Park Authority. (2013). Local Outdoor Access Forum Retrieved 14 Dec, 2013, from <http://cairngorms.co.uk/park-authority/outdoor/local-outdoor-access-forum/>
- Canadian Tourism Commission. (2009). *The Explorer Quotient*. Government of Canada.
- Cilimburg, A., Monz, C., & Kehoe, S. (2000). Wildland Recreation and Human Waste: A Review of Problems, Practices, and Concerns. *Environmental Management*, 25(6), 587-598.
- Clark, R., Burgess, R. G., & Hendee, J. C. (1971). Values, behavior and conflict in modern camping culture. *Journal of Leisure Research*, 3, 145-149.
- Club Arc Alpin. (2006). Statutes. Munich, Germany: Club Arc Alpin.
- Club Arc Alpin. (2013). About Us Retrieved 30 Jan, 2014, from <http://www.club-arc-alpin.eu/index.php?id=3&L=6>
- Cole, D. N. (2011-2012). Wilderness visitor experiences: A selective review of 50 years of research. *PARKScience: Integrating Research and Resource Mangement in the National Parks*, 28(3), 67-70.
- Cole, D. N., Hammond, T. P., & McCool, S. F. (1997). Information quantity and communication effectiveness: Low - impact messages on wilderness trailside bulletin boards. *Leisure Sciences*, 19(1), 59-72.
- Cole, D. N., & McCool, S. F. (1997). *Limits of acceptable change and natural resource planning: When is LAC useful, when is it not?* Paper presented at the Limits of Acceptable Change and Related Planning Processes: Progress and Future Directions, Ogden, UT.

- Colonel, M. (2009). *The Compagnie des Guides de Chamonix: A History*. Chamonix, France: Mario Colonel Editions.
- Cox, S. M., & Fulsaa, K. (Eds.). (2003). *Mountaineering: The Freedom of the Hills* (7 ed.). Seattle, WA: The Mountaineers Books.
- Csikszentmihalyi, M. (1990). *Flow: The Psychology of Optimal Experience*. New York, NY: HarperCollins Publishers.
- Csikszentmihalyi, M., & Csikszentmihalyi, I. S. (Eds.). (1988). *Optimal Experience*. Cambridge: Cambridge University Press.
- Dasman, R. (1964). *Wildlife Biology*. New York: John Wiley and Sons.
- Dawson, C. P., & Hendee, J. C. (2009). *Wilderness Management: Stewardship and Protection of Resources and Values* (4 ed.). Golden, CO: WILD Foundation.
- Dearden, P., & Rollins, R. (Eds.). (1993). *Parks and Protected Areas in Canada: Planning and Management*. Toronto: Oxford University Press.
- Delle Fave, A., Bassi, M., & Massimini, F. (2003). Quality of Experience and Risk Perception in High-Altitude Rock Climbing. *Journal of Applied Sport Psychology*, 15(1), 82 - 98.
- DeMarco, E. (2013). 10 Year Anniversary of Grand Teton National Park Human Waste Pack Out Program. Retrieved from <http://inclined.americanalpineclub.org/2013/01/10-year-anniversary-of-grand-teton-national-park-human-waste-pack-out-program/>
- den Breejen, L. (2007). The experiences of long distance walking: A case study of the West Highland Way in Scotland. *Tourism Management*, 28(6), 1417-1427.
- Driver, B. L. (2008). *Managing to Optimize the Beneficial Outcomes of Recreation*. State College, PA: Venture Publishing.
- Driver, B. L., & Tocher, S. R. (1970). Toward a behavioural interpretation of recreational engagements, with implications for planning. In B. L. Driver (Ed.), *Elements of Outdoor Recreation Planning*. Ann Arbor, MI: University of Michigan Press.
- Dubois, J. (2011, 13 Dec). [Key Informant Interview: Parks Canada Visitor Experience Facilities Analyst].
- Dyck, C., Schneider, I., Thompson, M., & Virden, R. (2003). Specialization Among Mountaineers and Its Relationship to Environmental Attitudes. *Journal of Park & Recreation Administration*, 21(2), 44-62.
- Ewert, A. W. (1985). Why People Climb: The Relationship of Participant Motives and Experience Level to Mountaineering. *Journal of Leisure Research*, 17(3), 241-250.

- Ewert, A. W. (1993). Differences in the level of motive importance based on trip outcome, experience level and group. [Article]. *Journal of Leisure Research*, 25(4), 335.
- Ewert, A. W. (1994). Playing the Edge: Motivation and Risk Taking in a High-Altitude Wildernesslike Environment. *Environment and Behaviour*, 26(1), 3-24.
- Ewert, A. W., & Hollenhorst, S. J. (1997). Adventure Recreation and its Implications for Wilderness. *International Journal of Wilderness*, 3(2), 21-26.
- Fédération Française de la Montagne et de l'Escalade. (2011). Les Statuts. Paris, France: Fédération Française de la Montagne et de l'Escalade.
- Fédération Française des Clubs Alpins et de Montagne. (2013). Qui Sommes Nous? Paris, France: Fédération Française des Clubs Alpins et de Montagne.
- Fedyna, S. (2011, 20 Dec). [Intermediate Mountaineer Interview].
- Feher, P., Meyers, M. C., & Skelly, W. A. (1998). Psychological profile of rock climbers: state and trait attributes. *Journal of Sport Behavior*, v21(n2), p167(114).
- Festinger, L. (1957). *A Theory of Cognitive Dissonance*. Stanford, California: Stanford University Press.
- Field, D. R., Brown, P. J., & Burdge, R. J. (2011). *Coming in from the Dark: The Evolution of ISSRM and Social Science Research in Resource Management*. Paper presented at the 10th International Symposium on Resource Management, Keystone, Colorado.
- Fiske, D. W., & Maddi, S. R. (Eds.). (1961). *Functions of Varied Experience*. Homewood: Dorsey Press.
- Floyd, M. (1997). Pleasure, arousal, and dominance: Exploring effective determinants of recreation satisfaction. *Leisure Sciences*, 19, 83-96.
- Gaba, E., & NordNordWest (Cartographer). (2009). Switzerland relief location map. Retrieved from http://commons.wikimedia.org/wiki/File:Switzerland_relief_location_map.jpg - mediaviewer/File:Switzerland_relief_location_map.jpg
- Garrard, R. (2005, 5-8 April). *Alpine Stewardship in Aotearoa/New Zealand: towards zero-waste on mountaineering routes in Aoraki/Mount Cook National Park*. Paper presented at the Zero Waste Conference, Kaikoura, New Zealand
- Geertz, C. (1973). *The Interpretation of Cultures*. New York: Basic Books, Inc.
- Gilchrist, V. J. (1999). Key Informant Interviews. In A. Bryman & R. G. Burgess (Eds.), *Qualitative Research* (Vol. 1). London: Sage Publications Ltd.

- Gjedde, L., & Ingemann, B. (2008). *Researching Experiences: Exploring Processual and Experimental Methods in Cultural Analysis*. Newcastle, UK: Cambridge Scholars Publishing.
- Gould, D., & Tuffey, S. (1996). Zones of optimal functioning research: A review and critique. *Anxiety, Stress and Coping*, 9, 53-68.
- Graham, R., Nilsen, P., & Payne, R. J. (1988). Visitor management in Canadian national parks. *Tourism Management*, 9(1), 44-61. doi: [http://dx.doi.org/10.1016/0261-5177\(88\)90057-X](http://dx.doi.org/10.1016/0261-5177(88)90057-X)
- Gray, D. E. (2004). *Doing Research in the Real World*. Thousand Oaks: SAGE Publications.
- Gregory, D. (1978). *Ideology, Science and Human Geography*. London: Hutchinson.
- Grijalva, T. C., & Berrens, R. P. (2003). Standing: Institutional Change and Rock Climbing in Wilderness Areas. *Society & Natural Resources: An International Journal*, 16(3), 239 - 247.
- Grylls, B. (2000). *The Kid Who Climbed Everest*. Guilford, UK: The Lyons Press.
- Haas, G., Allen, D., & Brown, P. (1980). *Measuring wilderness recreation experiences*. Paper presented at the Wilderness Psychology Group, Durham, NH.
- Haberl, K. (1995). *Alpine Huts: A guide to the facilities of the Alpine Club of Canada*. Canmore, AB: The Alpine Club of Canada.
- Hammit, W. E., & Cole, D. N. (1987). *Wildland Recreation Ecology and Management*. New York: John Wiley & Sons, Inc.
- Hanemann, B. (2000). *Cooperation in the European Mountains 3: The sustainable management of climbing in Europe*. Gland, Switzerland: IUCN European Programme Environmental Research Series.
- Hanley, N., Alvarez-Farizo, B., & Shaw, W. D. (2002). Rationing an open-access resource: mountaineering in Scotland. *Land Use Policy*, 19(2), 167-176.
- Haston, D. (1972). *In High Places*. London: Cassell and Company Ltd.
- Heimer, C. A. (1988). Social Structure, Psychology, and the Estimation of Risk. *Annual Review of Sociology*, 14(1), 491-517.
- Hendee, J. C., Stankey, G. H., & Lucas, R. C. (1990). *Wilderness Management*. Golden, CO: North American Press.
- Heywood, S. (1990). In S. Gardiner (Ed.), *Why I Climb: personal insights of top climbers, Robbins, Whittaker, Hill, Skinner, Bonington, Lowe and 23 others*. Harrisburg, PA: Stackpole Books.

- Hollinger, D. (2011, 24 Jun). [Key Informant Interview: Mountain Guide].
- Jackson, S. A., & Csikszentmihalyi, M. (1999). *Flow in Sports: The keys to optimal experiences and performances*.ampaign, IL: Human Kinetics.
- James, A. (2009). Cairngorms News and the Poo Project. *UK Climbing: Latest News*. Retrieved from UK Climbing website: <http://www.ukclimbing.com/news/item.php?id=49686>
- John Muir Trust. (2013). About the John Muir Trust Retrieved 17 Jan, 2014, from <http://www.jmt.org/about-the-john-muir-trust.asp>
- Johnston, B. R., & Edwards, T. (1994). The Commodification of Mountaineering. [Article]. *Annals of Tourism Research*, 21(3), 459-478.
- Jorgensen, B. S., Wilson, M. A., & Heberlein, T. A. (2001). Fairness in the contingent valuation of environmental public goods: attitude toward paying for environmental improvements at two levels of scope. *Ecological Economics*, 36(1), 133-148.
- Kariel, H. G. (1992). Alpine Huts in Canada's Western Mountains. *Canadian Geographer-Geographe Canadien*, 36(2), 144-158.
- Kelly, C. J. (2000). *"Thrilling and marvellous experiences": Place and subjectivity in Canadian Climbing Narratives 1882-1925*. (Doctor of Philosophy), University of Waterloo, Waterloo, ON.
- Khadka, N. S. (2013). Everest climbing rules 'to be tightened'. *BBC News Science and Environment*. Retrieved from <http://www.bbc.com/news/science-environment-23543172>
- Krakauer, J. (1997). *Into Thin Air: a personal account of the Mount Everest disaster*. New York: Anchor Books.
- Krumpe, E. E., & Brown, P. J. (1982). Redistributing Backcountry Use Through Information Related to Recreation Experiences. *Journal of Forestry*, 80(6), 360-364.
- Kuentzel, W. F., & McDonald, C. D. (1992). Differential effects of past experience, commitment, and lifestyle dimensions on river use specialization. *Journal of Leisure Research*, 24(3), 269-287.
- Kumar, K. (1989). *Conducting Key Informant Interviews in Developing Countries*. Washington, D.C.: Agency for International Development.
- Landry, A. (2009). Kluane National Park and Reserve of Canada: Five-year Management Plan Review and Update. In Parks Canada (Ed.). Whitehorse, YT: Parks Canada.

- Lawson, S. R., & Manning, R. E. (2002). Tradeoffs Among Social, Resource, and Management Attributes of the Denali Wilderness Experience: A Contextual Approach to Normative Research. *Leisure Sciences*, 24(3-4), 297-312.
- Ledwidge, M. (2011, 06 Dec). [Key Informant Interview: Parks Canada Visitor Safety Manager].
- Lefèvre, B. (2004). Contribution to the study of the social structure of high-altitude mountain activities : example of users in the Mont-Blanc massif. *Revue de géographie alpine*, 76-85.
- Lefevre, J. (1988). Flow and the quality of experience during work and leisure. In M. Csikszentmihalyi & I. S. Csikszentmihalyi (Eds.), *Optimal Experience: Psychological studies of flow in consciousness*. Cambridge: Cambridge University Press.
- Loeffler, T. A. (2008). *More Than a Mountain: One Woman's Everest*. St. John's, NFLD: Creative Publishers.
- Loewenstein, G. (1999). Because It Is There: The Challenge of Mountaineering; for Utility Theory. *Kyklos*, 52(3), 315-343.
- Louison, F. (2011). Bureau des Guides. Retrieved from <http://theblogdefab.blogspot.ca/2011/01/week-end-chamonix-janvier-2011.html>
- Luxton, E. G. (1974). *Banff: Canada's First National Park*. Banff, AB: Summerthought Publishing.
- MacKay, K. J., & Crompton, J. L. (1990). Measuring the quality of recreation services. *Journal of Park and Recreation Administration*, 8(3), 47-56.
- Malcolm, C. D. (2009). Conservation implications of birder visitation to Douglas Marsh, Manitoba: expectation - satisfaction levels of birders on commercial trips versus other birders. *Prairie Perspectives*, 12(1), 23-42.
- Manfredo, M. J., Driver, B. L., & Tarrant, M. A. (1996). Measuring leisure motivation: A meta-analysis of the recreation experience preference scales. *Journal of Leisure Research*, 28(3), 188-213.
- Manfredo, M. J., Vaske, J. J., Bruyere, B. L., Field, D. R., & Brown, P. J. (Eds.). (2004). *Society and Natural Resources. A Summary of Knowledge*. Jefferson, Missouri: Modern Litho.
- Manning, R. E. (1986). *Studies in Outdoor Recreation*. Corvallis, OR: Oregon State University Press.
- Manning, R. E. (2003). Emerging Principles for Using Information/Education in Wilderness Management. *International Journal of Wilderness*, 9(1), 20-27.

- Manning, R. E. (2004). Recreation Planning Frameworks. In M. J. Manfredo, J. J. Vaske, B. L. Bruyere, D. R. Field & P. J. Brown (Eds.), *Society and Natural Resources: A Summary of Knowledge*. Jefferson, MO: Modern Litho.
- Manning, R. E. (2011). *Studies in Outdoor Recreation: search and research for satisfaction*. Corvallis: Oregon State University Press.
- Manning, R. E., & Anderson, L. E. (2012). *Managing Outdoor Recreation: Case Studies in the National Park*. Wallingford, UK: CABI Publishing.
- Marcus, G. (2013). UC Irvine School of Social Sciences: Centre for Ethnography Retrieved 27 March, 2013, from <http://www.ethnography.uci.edu>
- Marion, J. L., & Reid, S. E. (2007). Minimising Visitor Impacts to Protected Areas: The Efficacy of Low Impact Education Programmes. *Journal of Sustainable Tourism*, 15(1), 5-27.
- Marshall, C., & Rossman, G. (1980). *Designing Qualitative Research*. Newbury Park, CA: Sage Publications, Inc.
- Martel, L. (2007). Climber Explores Love and Gravity. In L. Martel (Ed.), *Expedition to the Edge: stories of worldwide adventure*. Surrey, BC: Rocky Mountain Books.
- Martel, L. (2012, 13 Jan). [Key Informant Interview: Subject Matter Expert].
- Martilla, J. A., & James, J. C. (1977). Importance-performance analysis. *Journal of Marketing (pre-1986)*, 41(000001), 77.
- Martin, S. R., Marsolais, J., & Rolloff, D. (2009). Visitor Perceptions of Appropriate Management Actions Across the Recreation Opportunity Spectrum. *Journal of Park & Recreation Administration*, 27(1), 56-69.
- Mazachek, M. (2011, 21 Dec). [Intermediate Mountaineer Interview].
- McHale, J. (2011). Volunteers set to rebuild historic mountain shelter. *Grough Magazine*. Retrieved from <http://www.grough.co.uk/magazine/2011/08/26/volunteers-set-to-rebuild-historic-mountain-shelter>
- McPhee, T. (2012, 29 Jan). [Intermediate Mountaineer Interview].
- Merrill, K., & Graefe, A. (1997). *The relationship between activity specialization and preferences for setting and route attributes of selected rock climbers*. Paper presented at the Northeastern Recreation Symposium, Radnor, PA: USDA Forest Service Northeastern Forest Experiment Station.
- Mitchell, R. G. (1983). *Mountain experience: The psychology and sociology of adventure*. Chicago: University of Chicago Press.

- Mitchell, R. G. (1988). Sociological Implications of the Flow Experience. In M. Csikszentmihalyi & I. S. Csikszentmihalyi (Eds.), *Optimal Experience: Psychological studies of flow in consciousness*. Cambridge: Cambridge University Press.
- Moffat, G. (1961). *Space Below My Feet*. Boston: The Riverside Press Cambridge.
- Monz, C. A., Smith, K. E., & Knickerbocker, L. (2005). *Climbers' Attitudes Toward Recreation Resource Impacts in The Adirondack Park*. Paper presented at the 2005 Northeastern Recreation Research Symposium, Bolton Landing, New York.
- Morning, H. (2011, 10 Nov). [Key Informant Interview: Mountaineering Council of Scotland, Mountain Safety Advisor].
- Mountain Bothies Association. (2013). MBA History Retrieved 07 Feb, 2014, from <http://www.mountainbothies.org.uk/index.asp>
- Muir, J. (1901). *Our National Parks*. Boston, New York: Houghton, Mifflin and Company.
- Muir, J. (1911). *My First Summer in the Sierra* (reprint 2011 100th Anniversary Illustrated ed.). New York: Houghton Mifflin Harcourt Publishing Company.
- Mummery, A. F. (1895). *My Climbs in the Alps and Caucasus*. London: T.F. Unwin.
- Nelhams, A. (2011, 02 Jul). [Key Informant Interview: Mountain Guide].
- Nelson, J. G. (1987). National Parks and Protected Areas, National Conservation Strategies and Sustainable Development. *Geoforum*, 18, 291-319.
- Nelson, J. G. (1993). Beyond Parks and Protected Areas: From Public Lands and Private Stewardship to Landscape Planning and Management. In P. Dearden & R. Rollins (Eds.), *Parks and Protected Areas in Canada: Planning and Management*. Toronto: Oxford University Press.
- Nepal, S. K. (2002). Mountain Ecotourism and Sustainable Development: Ecology, Economics and Ethics. *Mountain Research and Development*, 22(2), 104-109.
- Nepal, S. K., & Chipeniuk, R. (2005). Mountain Tourism: Toward a Conceptual Framework. *Tourism Geographies: An International Journal of Tourism Space, Place and Environment*, 7(3), 313 - 333.
- Neuman, W. L. (1991). *Social Research Methods: Qualitative and Quantitative Approaches*. Needham Heights, MA: Allyn and Bacon.
- Nilsen, P., & Tayler, G. (1997). *A Comparative Analysis of Protected Area Planning and Management Frameworks*. Paper presented at the Limits of Acceptable Change and Related Planning Process: Progress and Future Direction, Ogden, UT.

- O'Keefe, D. J. (2002). *Persuasion: Theory and Research* (2 ed.). Thousand Oaks, California: SAGE Publications.
- OFEV. (2011). *Les ressources naturelles en Suisse: La Suisse des parcs*. Bern: Office Fédéral de l'environnement
- Parks Canada. (1994). *Parks Canada Guiding Principles and Operational Policies*. Ottawa, ON: Government of Canada.
- Parks Canada. (2008a). *Backcountry Guidelines for Jasper National Park*. Jasper, AB: Parks Canada Agency.
- Canada National Parks Act, S.C. 2000, c.32 (2008b).
- Parks Canada. (2008c). *Parks Canada Guide to Management Planning*. Ottawa, ON: Government of Canada.
- Parks Canada. (2008d). *Parks Canada Visitor Experience Assessment and Action Planning Guide*. Ottawa, ON: Government of Canada.
- Parks Canada. (2009). *Explorer Quotient Handbook*. Ottawa, ON: Parks Canada Agency.
- Parks Canada. (2010). *Banff National Park Management Plan*. Banff, AB: Parks Canada Agency.
- Parks Canada. (2011). *Parks Canada Toolkit for Facilitating Opportunities for Visitor Experience*. Ottawa, ON: Government of Canada.
- Parks Canada. (2012a). *Ski Touring in Rogers Pass and the Winter Permit System Brochure*. Glacier National Park: Parks Canada Agency.
- Parks Canada. (2012b). *Ski Touring in Rogers Pass Winter 2011 / 2012 Season Summary Newsletter*. Glacier National Park: Parks Canada Agency.
- Parks Canada (Cartographer). (2013a). Canadian Rocky Mountain National Parks. Retrieved from <http://www.pc.gc.ca/eng/pn-np/bc/yoho/visit/cartes-maps.aspx> - national
- Parks Canada. (2013b). Glacier National Park: Ski Touring in Rogers Pass and The Winter Permit System Retrieved 13 Oct, 2013, from <http://www.pc.gc.ca/eng/pn-np/bc/glacier/activ/activ1.aspx>
- Parks Canada (2013c, 14 Oct). [Personal Communication with Visitor Information at the Rogers Pass Discovery Centre].
- Payne, R. J., & Graham, R. (1993). Visitor Planning and Management in Parks and Protected Areas. In P. Dearden & R. Rollins (Eds.), *Parks and Protected Areas in Canada: Planning and Management*. Toronto: Oxford University Press.

- Pomfret, G. (2006). Mountaineering adventure tourists: a conceptual framework for research. *Tourism Management*, 27(1), 113-123.
- Pothecary, F. (2011, 12 Jul). [Key Informant Interview: Cairngorms National Park Authority, Outdoor Access Officer].
- Price, M. F. (1999). *Co-operation in the European Mountains 1: The Alps*. Gland, Switzerland and Cambridge, UK: IUCN European Programme Environmental Research Series.
- Price, M. F. (2011, 11 Jul). [Key Informant Interview: Subject Matter Expert].
- Price, M. F., Dixon, B. J., Warren, C. R., & Macpherson, A. R. (2002). Scotland's Mountains: Key Issues for their Future Management. Battleby, Scotland: Scottish Natural Heritage,.
- Price, M. F., & Pettigrew, R. (2000). *Forward Cooperation in the European Mountains 3: The sustainable management of climbing in Europe*. Gland, Switzerland: IUCN.
- Pringle, R. (2009). Defamiliarizing Heavy-Contact Sports: A Critical Examination of Rugby, Discipline, and Pleasure. [Article]. *Sociology of Sport Journal*, 26(2), 211-234.
- Rees, M. (2011, 02 Dec). [Key Informant Interview: Alpine Club of Canada, Rocky Mountain Section Chair].
- Ridgeway, R. (1990). In S. Gardiner (Ed.), *Why I Climb: personal insights of top climbers, Robbins, Whittaker, Hill, Skinner, Bonington, Lowe and 23 others*. Harrisburg, PA: Stackpole Books.
- Robinson, D. W. (1985). Stress seeking: Selected behavioural characteristics of elite rock climbers. *Journal of Sport Psychology*, 7, 400-404.
- Robson, C. (2011). *Real World Research* (Vol. 3): Wiley.
- Sagoff, M. (1998). Aggregation and deliberation in valuing environmental public goods:: A look beyond contingent pricing. *Ecological Economics*, 24(2-3), 213-230.
- Sandford, R. W., & Whelan, J. (Eds.). (2002). *Every Other Day: The Journals of the Remarkable Rocky Mountain Climbs and Explorations of Alfred J. Ostheimer III*. Calgary, AB: The Alpine Club of Canada.
- Sayre, W. W. (2005). Why Do Men Climb? In M. Vause (Ed.), *Peering Over the Edge: The Philosophy of Mountaineering*. La Cresenta, CA: Mountain N'air Books.
- Schreyer, R., & Roggenbuck, J. W. (1978). The influence of experience expectations on crowding perceptions and social - psychological carrying capacities. *Leisure Sciences*, 1(4), 373-394.

- Schutz, A. (1970). *On Phenomenology and Social Relations*. Chicago: The University of Chicago Press.
- Scott, C. (1990). *Unpublished Data: Interviews with Canadian Mountaineers*. Banff, AB.
- Scott, C. (2000). *Pushing the Limits: The Story of Canadian Mountaineering*. Calgary, AB: Rocky Mountain Books.
- Scott, C. (2011, 02 Dec). [Key Informant Interview: Subject Matter Expert].
- Scottish Natural Heritage. (2005). *Scottish Outdoor Access Code*. Perth, Scotland: Scottish Natural Heritage.
- Land Reform (Scotland) Act (2003).
- Shelby, B., Heberlein, T. A., Vaske, J. J., & Alfano, G. (1983). Expectations, preferences, and feeling crowded in recreation activities. *Leisure Sciences*, 6(1), 1-14.
- Shindler, B., & Shelby, B. (1993). Regulating Wilderness Use: An investigation of user group support. *Journal of Forestry*(91), 41-44.
- Shoalts, A. (2011). The History Behind Canada's National Parks. Retrieved 17 Feb 2013, from Canadian Geographic <http://www.canadiangeographic.ca>
- Simpson, J. (1993). *This Game of Ghosts*. Seattle: The Mountaineers.
- Simpson, J. (1997). *Dark Shadows Falling*. Seattle, WA: The Mountaineers.
- Simpson, J. (2003). *The Beckoning Silence*. Seattle, WA: The Mountaineers Books.
- Singleton, R. A. J., & Straits, B. C. (2010). *Approaches to Social Research* (5 ed.). New York: Oxford University Press.
- Sleasman, M. R. (2004). *Comprehensive Personality Assessment of Individuals in the High Risk Sport of Mountaineering*. (Doctor of Psychology in Clinical Psychology), George Fox University, Newberg, OR.
- Snowdonia National Park Authority. (2013). New Stone Pillars on Snowdon. *2013/2014 Press Releases* Retrieved 28 May 2013
- Stankey, G. H., & McCool, S. F. (2011). *Social Sciences and Natural Resources Management: An Assessment of Advances*. Paper presented at the 10th International Symposium on Resource Management, Keystone, Colorado.
- Stark, D. (2012). Key Informant Interview: Mountain Guide.
- Statham, G. (2011, 20 Dec). [Key Informant Interview: Parks Canada Mountain Risk Specialist].

- Stewart, W. P., & Hull, R. B. (1992). Satisfaction of what? Post hoc versus real - time construct validity. *Leisure Sciences*, 14(3), 195-209.
- Stockdale, A., & Barker, A. (2009). Sustainability and the multifunctional landscape: An assessment of approaches to planning and management in the Cairngorms National Park. *Land Use Policy*, 26(2), 479-492. doi: DOI: 10.1016/j.landusepol.2008.07.001
- Suvantola, J. (2002). *Tourist's Experience of Place - New Directions in Tourism Analysis*. Burlington, VT: Ashgate Publishing Company.
- Swiss Alpine Club. (2013). About Us Retrieved 14 March, 2014, from <http://www.sac-cas.ch/en/metanav/home.html>
- Tackle, J. (1990). In S. Gardiner (Ed.), *Why I Climb: personal insights of top climbers, Robbins, Whittaker, Hill, Skinner, Bonington, Lowe and 23 others*. Harrisburg, PA: Stackpole Books.
- The Alpine Club of Canada. (2013a). Hut and Hostel Listings: Backcountry Huts Retrieved 05 Nov, 2013, from <http://www.alpineclubofcanada.ca/facility/info.html>
- The Alpine Club of Canada. (2013b). Wapta Traverse Retrieved 04 Nov, 2013, from <http://www.alpineclubofcanada.ca/activities/trips2013/winter/wapta.html>
- The Alpine Club of Canada. (2014). Huts and the Environment Retrieved 14 June, 2014, from <http://www.alpineclubofcanada.ca/facility/huts-and-the-environment/>
- The Banff Centre. (2013). Banff Mountain Film and Book Festival: About the Festival Retrieved Oct 09, 2013, from <http://www.banffcentre.ca/mountainfestival/>
- The Mountaineering Council of Scotland. (1996). *Wild Camping: A Guide to Good Practice*. Perth, Scotland: The Mountaineering Council of Scotland.
- The Mountaineering Council of Scotland. (2009). What is Mountaineering? Retrieved 05 April 2010, from <http://www.mcofs.org.uk/mountaineering.asp>
- The Mountaineering Council of Scotland. (2013a). Ski Touring: Ski Touring Advisory Group Retrieved 01 Feb, 2014, from <http://www.mcofs.org.uk/stag.asp>
- The Mountaineering Council of Scotland. (2013b). Strategic Plan 2013-2017 Retrieved 20 Aug, 2013, from <http://www.mcofs.org.uk/stratplan20132017.asp>
- The Mountaineering Council of Scotland. (2013c). Where to "Go" in the Great Outdoors. Perth, Scotland: The Mountaineering Council of Scotland.
- Tindal, M. (2011, 20 Dec). [Intermediate Mountaineer Interview].

- Tyler, M.-E. (2010, 26 March 2010). [Personal meeting regarding thesis research development].
- UIAA. (1997). International Mountaineering and Climbing Federation Environmental Objectives and Guidelines. Slovenia: UIAA.
- UIAA. (2009). International Mountaineering and Climbing Federation Activities Retrieved 2 March 2010, from <http://www.theuiaa.org/index.php>
- UIAA Access and Conservation Commission. (2005). International Mountaineering and Climbing Federation Argeo's Charter: Guidelines for Sustainable Mountain Tourism. Berne, Switzerland: UIAA.
- Vause, M. (2005a). Knights of Nothingness: The Transcendental Nature of Mountaineering and Mountain Literature. In M. Vause (Ed.), *Peering Over the Edge: The Philosophy of Mountaineering*. La Cresenta, CA: Mountain N'air Books.
- Vause, M. (Ed.). (2005b). *Peering Over the Edge: The Philosophy of Mountaineering*. La Cresenta, CA: Mountain N'air Books.
- Vroom, V. H. (1964). *Work and Motivation*. San Francisco, CA: Jossey-Bass.
- Waldrup, R., & McEwen, D. (1994). Rock-climbing and wilderness: a study of climbers' attitudes toward wilderness, climbing impacts and regulation. *Trends*, 31(3), 38-42.
- Walker, S. (2012a, 06 Jan). [Intermediate Mountaineer Interview].
- Walker, S. (2012b, 06 Jan). [Key Informant Interview: Parks Canada Visitor Experience Product Development Officer].
- Weber, K. (2001). Outdoor adventure tourism: A Review of Research Approaches. *Annals of Tourism Research*, 28(2), 360-377.
- Weekley III, G. M. (2002). *Recreation Specialization and the Recreation Opportunity Spectrum: A Study of Climbers*. (Master of Science in Recreation, Parks, and Tourism Resources), West Virginia University, Morgantown, WV.
- Wilson, J., & Richards, G. (2008). Suspending Reality: An Exploration of Enclaves and the Backpacker Experience. *Current Issues in Tourism*, 11(2), 187-202.
- Wilson, T. V. (2013). Caterpillar Metamorphosis: The Magic Within the Chrysalis. *How Stuff Works* Retrieved 14 April 2013, from <http://science.howstuffworks.com/zoology/insects-arachnids/caterpillar3.htm>
- Zuckerman, M. (1979). *Sensation Seeking: beyond the optimal level of arousal*. Hillsdale, NJ: Erlbaum.

Appendix 1. Narratives Analyzed

The following lists the 36 narratives that were analyzed in Phase I. This list also includes short biographies of the 33 mountaineers and climbers examined.

Phil Bartlett

A university physics researcher, Bartlett has participated in mountaineering expeditions around the world, including Greenland, Pakistan, India, South America and Northern Canada. He is also the author of *The Undiscovered Country*.

Bartlett, P. (2005). Return to the Primitive. In M. Vause (Ed.), *Peering Over the Edge: The Philosophy of Mountaineering*. La Crescenta, CA: Mountain N'air Books.

Arlene Blum

Blum led the first American, all-women climb of Annapurna and has participated in over twenty successful mountaineering expeditions, including summiting Mt. Everest and Mt. McKinley. She is also an author and was awarded the Gold Medal from the Society of Women Geographers.

Blum, A. (1990). In S. Gardiner (Ed.), *Why I Climb: personal insights of top climbers, Robbins, Whittaker, Hill, Skinner, Bonington, Lowe and 23 others*. Harrisburg, PA: Stackpole Books.

Glen Boles

Boles wears many hats: an artist and photographer, with 37 first ascents and 600 summits to his name and 13 years on the Canadian Ski Patrol System. Boles has taken part in many mountaineering expeditions in the Yukon, Alaska, the European Alps and extensively in the Rockies and the Interior Ranges of British Columbia. At the Banff Mountain Film Festival of 2005, Glen received the Bill March "Summit of Excellence Award" for his contribution to Canadian mountaineering.

Martel, L. (2008). Veteran Mountaineer is an Artist and a Gentleman (2006): Glen Boles. In L. Martel (Ed.), *Expedition to the Edge: stories of worldwide adventure*. Surrey, BC: Rocky Mountain Books.

Sir Chris Bonington

Easily one of the most renowned mountaineers, Bonington has achieved various first ascents in prominent mountain ranges across the world, including Mt. Everest and the Alps. He accomplished the first British ascent of the North Face of the Eiger and has since been knighted for his influences on mountaineering and exploration. A prolific author, Bonington still climbs tough routes at the age of 80.

Bonington, C. (1990). In S. Gardiner (Ed.), *Why I Climb: personal insights of top climbers, Robbins, Whittaker, Hill, Skinner, Bonington, Lowe and 23 others*. Harrisburg, PA: Stackpole Books.

Bonington, C. (1973). *The Next Horizon*. London: Weidenfeld & Nicolson.

Carlos Buhler

A leader in expeditionary mountaineering, American-born Buhler has tackled peaks across the Himalayas, Andes and all over North America. His photos from Everest expeditions have appeared in National Geographic. He makes his living as a motivational speaker, discussing leadership.

Martel, L. (2008). Mountaineering is a Vehicle for Learning (2004): Carlos Buhler. In L. Martel (Ed.), *Expedition to the Edge: stories of worldwide adventure*. Surrey, BC: Rocky Mountain Books.

Rick Collier

Collier was a literature Professor at Mount Royal University in Calgary, AB, as well as a candidate in the 2012 provincial election. His passion, however, was mountains. In 2005, he reached the milestone of having climbed 1000 peaks from 2000m summits in Canmore, AB to the Yukon's Mount Logan (5959m). Collier died in a climbing accident in BC at the age of 71.

Martel, L. (2008). 1,030 Peaks and Counting (2005): Rick Collier. In L. Martel (Ed.), *Expedition to the Edge: stories of worldwide adventure*. Surrey, BC: Rocky Mountain Books.

Steph Davis

Davis, predominantly a rock climber from the USA, also immerses herself in base jumping, mountaineering and free soloing. A sponsored athlete, Davis is also an author whose writing has appeared in *Rock & Ice* and *Climbing* magazines.

Davis, S. (2007). *High Infatuation: a climber's guide to love and gravity*. Seattle: The Mountaineers Books.

Martel, L. (2008). Climber Explores Love and Gravity (2007): Steph Davis. In L. Martel (Ed.), *Expedition to the Edge: stories of worldwide adventure*. Surrey, BC: Rocky Mountain Books.

John Durrance

American climber Durrance has completed numerous rock climbs across Europe and first ascents in the Tetons. He was a member of the 1939 American K2 expedition.

Durrance, J. (1990). In S. Gardiner (Ed.), *Why I Climb: personal insights of top climbers, Robbins, Whittaker, Hill, Skinner, Bonington, Lowe and 23 others*. Harrisburg, PA: Stackpole Books.

Bear Grylls

Edward Michael “Bear” Grylls, a former member of the British Special Forces, leads climbing and other adventure expeditions all over the world and was the youngest Briton to successfully scale Mt. Everest. He is also the Chief Scout of the Scouting Association, a prolific author, a motivational speaker and is most recognized as the host of his prime-time TV adventure series, “Man vs. Wild”.

Grylls, B. (2000). *The Kid Who Climbed Everest*. Guilford, UK: The Lyons Press.

Nancy Hansen

Hansen is passionate about mountaineering, ski touring, rock and ice climbing. Residing in one of the climbing meccas of the Canadian Rockies, Canmore, AB, Hansen achieved an historic mountaineering milestone by becoming the first woman to climb all 54 peaks over 11,000 feet in

the Canadian Rockies. She is the Director of Facilities and Mountaineering for The Alpine Club of Canada.

Martel, L. (2008). Nancy's List (2003): Nancy Hansen. In L. Martel (Ed.), *Expedition to the Edge: stories of worldwide adventure*. Surrey, BC: Rocky Mountain Books.

Dougal Haston

Haston, a Scottish mountaineer, made a number of direct first ascents in the Alps and the Himalayas. He teamed with Bonington for successful expeditions on Annapurna and Mt. Everest. In 1967 he became director of the International School of Mountaineering at Leysin, Switzerland, a position he maintained until an avalanche took his life in 1977.

Haston, D. (1972). *In High Places*. London: Cassell and Company Ltd.

Scott Heywood

Heywood has achieved first ascents of rock climbs in the Canadian Rockies, Yosemite, Alaska, and Colorado, amongst others climbing meccas. He has also tackled winter ascents, ice climbs and kayaking trips in China, Tibet and Alaska.

Heywood, S. (1990). In S. Gardiner (Ed.), *Why I Climb: personal insights of top climbers, Robbins, Whittaker, Hill, Skinner, Bonington, Lowe and 23 others*. Harrisburg, PA: Stackpole Books.

Charles S. Houston

Houston was a distinguished American physician, mountaineer and author. He studied the effects of high altitude as a naval flight surgeon in World War II. He made 2 celebrated attempts on K2 and numerous expeditions in Canada, the Himalayas and Alaska.

Houston, C. S. (1990). Foreword. In S. Gardiner (Ed.), *Why I Climb: personal insights of top climbers, Robbins, Whittaker, Hill, Skinner, Bonington, Lowe and 23 others*. Harrisburg, PA: Stackpole Books.

Sean Isaac

Isaac has scaled peaks and completed expeditions in Peru, Patagonia, Pakistan, Kyrgyzstan, Baffin Island, the UK, the Cirque of the Unclimbables and many other wild mountain ranges. He is the author of mixed climbing guidebooks and has established over 70 new mixed routes in the Canadian Rockies alone. Editor of the Canadian Alpine Journal, and a certified ACMG Alpine Guide, Isaac is a sponsored climber. His writing has been featured in numerous climbing publications.

Martel, L. (2008). Rockies Climber Samples Scottish Classics (2007): Sean Isaac. In L. Martel (Ed.), *Expedition to the Edge: stories of worldwide adventure*. Surrey, BC: Rocky Mountain Books.

Jon Krakauer

Krakauer grew up climbing with his father in Oregon. He successfully summited Mt. Everest in 1996, but one of the most famous storms in Everest history took the lives of some of his teammates. He subsequently wrote the famous *Into Thin Air*, which became a #1 *New York Times* bestseller. He is a celebrated author and writes for *Outside* magazine, amongst other publications.

Krakauer, J. (1997). *Into Thin Air: a personal account of the Mount Everest disaster*. New York: Anchor Books.

TA Loeffler

Loeffler is a Canadian adventurer, keynote speaker and Professor of Outdoor Recreation at Memorial University of Newfoundland. She has received numerous teaching and sport awards, including making the list for 2006 Top Twenty Most Influential Women in Canadian Sport and Physical Activity, from The Canadian Association for the Advancement of Women in Sport. Numerous mountaineering and trekking expeditions to ranges across the world, including the Seven Summits, have led her to two attempts on Mt. Everest.

Loeffler, T. A. (2008). *More Than a Mountain: One Woman's Everest*. St. John's, NFLD: Creative Publishers.

Jeff Lowe

American alpinist Lowe has been described as a pioneer in the ice climbing world. He has established some of the most difficult, creative and celebrated climbs the world over, including route in the Canadian Rockies, the Alps, the Himalayas and the USA. He is credited with inventing mixed climbing and is the author of multiple climbing narratives.

Lowe, J. (2005). *Grabbing Friendship by the Ankle*. In M. Vause (Ed.), *Peering Over the Edge: The Philosophy of Mountaineering*. La Crescenta, CA: Mountain N'air Books.

Gwen Moffat

Moffat is a British climber and writer. She was the first female climber in the UK to make a living from climbing from the 1940s through the 1960s, and became the first fully qualified female British guide. Described as having remarkable climbing abilities, she worked with the RAF Mountain Rescue Service in North Wales.

Moffat, G. (1961). *Space Below My Feet*. Boston: The Riverside Press Cambridge.

Albert F. Mummery

Mummery was a renowned English mountaineer and author. In the late 1800s, Mummery achieved first ascents in the French and Swiss Alps, most notably the Zmutt ridge of the Matterhorn. With a group of climbers and Gurkhas, Mummery led the first expedition to attempt an 8000m peak in the Himalayas. However, the expedition was ill fated and the party lost their lives due to an avalanche on Nanga Parbat. Mummery was 39 at the time of his death in 1895.

Mummery, A. F. (1895). *My Climbs in the Alps and Caucasus*. London: T.F. Unwin.

Alfred J. Ostheimer III

Ostheimer III was a 19-year-old Harvard University geology student who, in the summer of 1927, went on a peak-bagging assignment that has since been unrivaled in Canadian mountaineering history. In Jasper National Park, in the span on 60 days, he climbed 30 peaks – twenty-seven of them were first ascents. He recorded his trip in intricate detail and handed it in

as a term paper. The spirit of mountaineering, adventure and exploration that he demonstrated has become well known and celebrated in Canada.

Sandford, R. W., & Whelan, J. (Eds.). (2002). *Every Other Day: The Journals of the Remarkable Rocky Mountain Climbs and Explorations of Alfred J. Ostheimer III*. Calgary, AB: The Alpine Club of Canada.

Marko Prezelj

Originally from Slovenia, Prezelj is a mountaineer and photographer, IFMGA/UIAGM mountain guide and climbing instructor. He completed his first major expedition in the Himalayas in 1987 and has continued ever since. Awarded the “Oscar of Climbing”, the Piolet D’Or, Prezelj has since questioned the validity and necessity of awards for competitive alpinism.

Martel, L. (2008). *Style is the Spice of Climbing (2005): Marko Prezelj*. In L. Martel (Ed.), *Expedition to the Edge: stories of worldwide adventure*. Surrey, BC: Rocky Mountain Books.

William A. Read

Read is an American climber, adventure travel entrepreneur and climbing guide, Read has participated in numerous expeditions in the Himalayas and ascents of Mt. McKinley and peaks in the American Rockies. Most notably, he was the deputy leader of the 1969 American Dhaulagiri Expedition, during which he survived an avalanche that swept most of his climbing partners away.

Read, W. A. (1990). In S. Gardiner (Ed.), *Why I Climb: personal insights of top climbers, Robbins, Whittaker, Hill, Skinner, Bonington, Lowe and 23 others*. Harrisburg, PA: Stackpole Books.

Rick Ridgeway

Ridgeway is a mountaineer, an adventurer, an expedition leader, a filmmaker and a photographer. Hailing from California, in the early 1960s-1970s Ridgeway made numerous first ascents in the Peruvian Andes. He joined the American Bicentennial Everest Expedition in 1976

and subsequently joined the first American expedition to summit K2, considered to be one of the hardest mountains to summit in the world, in 1978.

Ridgeway, R. (1990). In S. Gardiner (Ed.), *Why I Climb: personal insights of top climbers, Robbins, Whittaker, Hill, Skinner, Bonington, Lowe and 23 others*. Harrisburg, PA: Stackpole Books.

David Roberts

Roberts has been recognized as one of America's best and most prolific climbing writers. Whilst studying mathematics at Harvard University, Roberts was the president of the Harvard Mountaineering Club. He has climbed all over the world and his difficult routes on Denali are well known. One of his popular novels was co-authored with climber Conrad Anker, *The Lost Explorer: Finding Mallory on Mount Everest*.

Roberts, D. (2005). Moments of Doubt. In M. Vause (Ed.), *Peering Over the Edge: The Philosophy of Mountaineering*. La Crescenta, CA: Mountain N'air Books.

Glen Rowell

American mountaineer, author and photographer, Rowell was well known for his participation in more than 1000 climbs all over the world. In 1973, with a couple of climbing partners, he completed the first clean ascent of Half Dome in Yosemite. He has the following records to his name: first one-day ascent of Denali, first ski circumnavigation of Denali, first one-day ascent of Kilimanjaro, first ascent of Cholatse, the final major peak climbed in the Everest region. Sadly, Rowell and his wife died in a plane crash in 2002.

Rowell, G. (2005). Storming a Myth. In M. Vause (Ed.), *Peering Over the Edge: The Philosophy of Mountaineering*. La Crescenta, CA: Mountain N'air Books.

Woodrow Wilson Sayre

Dr. Sayre has been described as a "twentieth century mountaineer with the hardihood and romantic vision of a Golden Age adventurer". In 1962, he led a four-man, privately financed

expedition to Mount Everest. Only 12 attempts on the peak had been made to that point. Sayre decided to attempt the peak without the Sherpa support or oxygen – a first. Accidents and bad weather forced the team to stop shy of the summit, but Sayre himself reached an altitude of 25,500 feet. He is the author of *Four Against Everest*.

Sayre, W. W. (2005). Why Do Men Climb? In M. Vause (Ed.), *Peering Over the Edge: The Philosophy of Mountaineering*. La Crescenta, CA: Mountain N'air Books.

Joe Simpson

Simpson is the renowned author of *Touching the Void*, the non-fiction masterpiece that describes the terrible, epic mountaineering accident that Simpson suffered, and miraculously survived, in the Peruvian Andes. By climbing across the world, this English mountaineer discovered his talent as a writer and has gone on to write profound stories of climbing and addressing the reasons we pursue it. Having sold millions of copies around the world, *Touching the Void* is the winner of the NCR Award for Non-fiction and the Boardman Tasker Mountain Literature Award.

Simpson, J. (1993). *This Game of Ghosts*. Seattle: The Mountaineers.

Simpson, J. (2003). *The Beckoning Silence*. Seattle, WA: The Mountaineers Books.

George Spenceley

As a teen, Spenceley began hiking and rock climbing in the British mountains, until he joined the R.A.F. in WWII as a pilot. He was shot down over Germany in 1942 and survived as a prisoner of war for three years. After the war, he returned to his passion for climbing mountains and spent several seasons climbing in the Alps. In 1987, he became an expedition leader in Nepal, where his team suffered tragedy in an avalanche from which he was the only survivor. Recently, he passed away at the age of 91.

Spenceley, G. B. (2005). The New Generation. In M. Vause (Ed.), *Peering Over the Edge: The Philosophy of Mountaineering*. La Crescenta, CA: Mountain N'air Books.

Jack Tackle

Tackle is an American mountaineering guide, certified by the AMGA. He has put up many new routes all over the world, including a route on Mt. Waddington, the highest peak in British Columbia, peaks in Peru, Alaska and the Yukon. He has been a part of 15 major expeditions. He has been highly involved in the American Alpine Club, acting on the board of directors and now, as the treasurer.

Tackle, J. (1990). In S. Gardiner (Ed.), *Why I Climb: personal insights of top climbers, Robbins, Whittaker, Hill, Skinner, Bonington, Lowe and 23 others*. Harrisburg, PA: Stackpole Books.

Mikel Vause

Dr. Vause is an authority in mountaineering literature. After a childhood of reading adventure stories and growing up in the Rocky Mountains, he pursued his passion and wrote a doctoral dissertation on mountaineering literature. He is now a Professor in the English Department at Weber State University, Utah. He has climbed extensively in the USA, the UK, Norway and the Himalayas.

Vause, M. (2005). *Mountaineering: The Heroic Expression of Our Age*. In M. Vause (Ed.), *Peering Over the Edge: The Philosophy of Mountaineering*. La Cresenta, CA: Mountain N'air Books.

Vause, M. (2005). *Knights of Nothingness: The Transcendental Nature of Mountaineering and Mountain Literature*. In M. Vause (Ed.), *Peering Over the Edge: The Philosophy of Mountaineering*. La Cresenta, CA: Mountain N'air Books.

Bradford Washburn

Washburn was an American mountaineer, photographer and cartographer. From the 1920s-1950s, he pioneered new routes up the North faces of many peaks in the Alps. He made the third, fourth and sixth ascents of Mt. McKinley. He initiated the use of aerial photography in the analysis of mountains and produced maps of the Grand Canyon, the Everest region, the Presidential range, amongst others. He died at the age of 96 in 2007 at a retirement home in Massachusetts.

Washburn, B. (1990). In S. Gardiner (Ed.), *Why I Climb: personal insights of top climbers, Robbins, Whittaker, Hill, Skinner, Bonington, Lowe and 23 others*. Harrisburg, PA: Stackpole Books.

James Whittaker

As a member of the first American Mount Everest Expedition 1963, Whittaker was the first American to reach the summit. In 1978, he was the leader of the first American ascent for K2. He has made 66 ascents of Mt. Rainier. He led the Earth Day 20 International Peace Climb that brought together climbers from across the world, to summit Mount Everest. The intention of the expedition was to carry off a trash left on the mountain by preceding expeditions. Whittaker is now the chairman of the Board of a company that produces handheld GPS units.

Whittaker, J. W. (1990). In S. Gardiner (Ed.), *Why I Climb: personal insights of top climbers, Robbins, Whittaker, Hill, Skinner, Bonington, Lowe and 23 others*. Harrisburg, PA: Stackpole Books.

Simon Yates

Yates was Joe Simpson's climbing partner during their terrible ordeal whilst completing the first ascent of the West face of Siula Grande in the Peruvian Andes in 1985. Since gaining recognition for his association with this tribulation, Yates has climbed extensively and put up new routes in India, Pakistan, Nepal, Kazakhstan, Australia and South America. He is also an author, and was short-listed for the Boardman Tasker Mountain Literature Award for his first book, *Against the Wall*. Yates now operates a mountain guiding business in the UK.

Yates, S. (2005). At Home Abroad. In M. Vause (Ed.), *Peering Over the Edge: The Philosophy of Mountaineering*. La Crescenta, CA: Mountain N'air Books.

Appendix 2. Interview Guides

Interview Guide for Mountaineering Guides

1. Introductory questions:
 - a. Can you please describe your role within your organization? Name of organization.
 - b. How long have you been in this position? How did you come into this position?
 - c. Please list the areas in which you have climbed extensively.
 - d. Can you describe your previous experience as a guide for intermediate mountaineers?
 - e. Have you ever designed a program/course specifically for intermediate mountaineers?
Where did this instruction/guiding take place?
2. As a mountaineer, climbing for your own pleasure, in what ways do land or parks management activities have a negative impact your experience? Why? (Can you be specific about locations i.e. Swiss/French Alps, Scottish Highlands, Himalayas). In your role as a guide, do you feel that there are similar management activities that negatively impact your clients' experience (for example have they mentioned anything negative about the management)? Are there any limitations to your guiding style?
3. As a mountaineer, climbing for your own pleasure, in what ways do land or parks management activities facilitate/enhance your optimal experience? Why? (Can you be specific about locations i.e. Swiss/French Alps, Scottish Highlands, Himalayas). In your role as a guide, are there similar management activities that facilitate or your clients' experience (based on their comments about their experiences)?
4. Which of these management actions seem to be the most influential (negatively or positively) on your clients' experiences? Are there any other management factors you believe affect intermediate mountaineers' climbing experiences?
5. Have you noticed a difference in what your clients expect from their experiences based on location (i.e. do clients who climb with you in the Alps expect different experiences than those who climb with you in the Highlands?)
6. Are you aware of any specific management policies in place in your guiding locations? Is it clear why certain management actions, or lack thereof, have been implemented? Why or why not?
7. What is your level of satisfaction with the current park/land management practices in the areas in which you guide? (Be location specific). If you were the land manager, how would you change things?

Interview Guide for Subject Matter Experts

1. Introductory questions:
 - a. How would you describe yourself/your role in the climbing community now? Author, climber, organizer, all of the above?
 - b. Please list the areas in which you have climbed extensively.
 - c. Can you describe your previous experience as a guide for intermediate mountaineers?
 - d. Have you ever designed a program/course specifically for intermediate mountaineers?
Where did this instruction/guiding take place?
2. As a mountaineer, climbing for your own pleasure, in what ways have land or parks management activities have a negative impact your experience? Why? (Can you be specific about locations i.e. Swiss/French Alps, Scottish Highlands, Himalayas). In your role as a guide, did you feel that there are similar management activities that negatively impact your clients' experience (for example did they mentioned anything negative about the management)? Were there any limitations to your guiding style?
3. As a mountaineer, climbing for your own pleasure, in what ways do land or parks management activities facilitate/enhance your optimal experience? Why? (Can you be specific about locations i.e. Swiss/French Alps, Scottish Highlands, Himalayas). In your role as a guide, were there similar management activities that facilitated or your clients' experience (based on their comments about their experiences)?
4. Which of these management actions seemed to be the most influential (negatively or positively) on your AND your clients' experiences? Are there any other management factors you believe affect intermediate mountaineers' climbing experiences?
5. Having climbed extensively in the Alps, can you comment on the differences in climbing culture there and here? How do these differences in culture affect experience, in your opinion?
6. How have things changed in Banff / Rockies in general since you started climbing there? Changes in what climbers want out of their experiences? Changes in what YOU want? Changes in culture? Changes in Parks?
7. Have you noticed a difference in what you expect from each mountaineering experience based on location? Why or why not?

8. Are you aware of any specific management policies in place in your main climbing locations these days? Is it clear why certain management actions, or lack thereof, have been implemented? Why or why not?
9. What is your level of satisfaction with the current park/land management practices in the areas in which you climb? (Be location specific). If you were the land manager, how would you change things?

Interview Guide for Land Managers and Parks Personnel

1. Introductory questions:
 - a. Please describe your position. How long have you been in this position?
 - b. What is your position's mandate/role within your organization? Please describe the Park's mandate with regards to outdoor recreation.
2. Is there a specific management plan or component of a broader management plan that addresses recreational activity on your land? Can you describe it? Who are the main visitor groups that you are managing for? Are mountaineers a key group in this area and if so, is there a specific management system in place for them?
3. What are your recreation management plans based on (e.g. environmental impact concerns, private land issues, visitor experience, all of the above)? What are some of your main considerations when facilitating recreational mountaineering (safety, visitor satisfaction, accessibility)?
4. How does the land you manage accommodate for specific visitor type experiences? Has any research been conducted by your organization to justify a general approach as opposed to a visitor-specific approach to recreation management (surveys etc.)? Do you actively communicate with mountaineers or any other user group? If so, please qualify.
5. What are some of the management actions implemented by your organization, if any, to regulate mountaineers' behavioural activities? (For example: do you regulate numbers, access, gear, permits etc.). How would you rate the level of compliance? How might these management actions affect mountaineers' experiences (facilitate or detract)?
6. Are there any specific things that mountaineers do to interfere with the park's ability to fulfill their mandate? In some cases, mountaineers choose to recreate in areas where access has been denied for reasons of environmental concern. This can result in climbers

disregarding the access regulations, park fees etc. To what extent have you witnessed conflicts like this in your area?

7. In your opinion, what are some of the key factors that will allow climbers to enjoy their experiences in the park? Has your organization conducted visitor satisfaction surveys, and more specifically, surveys of mountaineers? What do the results indicate?
8. Does your area have different management regulations for individual climbers as opposed to professional guides? Why or why not? What role do liability and search and rescue factors in determining financial or management planning for these types of visitors and guides?

Interview Guide for Interest Groups: Alpine Club of Canada

1. Introductory questions:
 - a. Please describe your position. How long have you been in this position?
 - b. What is your position's mandate/role within your organization? Please describe the organization's mandate with regards to outdoor recreation/climbing.
 - c. Can you describe your previous experience as a guide for intermediate mountaineers?
 - d. Have you ever designed a program/course specifically for intermediate mountaineers?
Where did this instruction/guiding take place?
2. How does your organization act on behalf of mountaineers/ act as an advocate for mountaineers' interests? How do you interact with National Parks – can you make suggestions to them? How do you interact with mountaineers/ your members?
3. Are you aware of specific management plan or component of a broader management plan that addresses mountaineering in Canada's Mountain Parks? Can you describe it? What role does your organization play in the development of the mountaineering experience in the Rockies?
4. When acting as an advocate organization for mountaineers, what are some of your main considerations when facilitating recreational mountaineering (safety, rescue, visitor satisfaction, accessibility, avoiding environmental impact, private land issues etc.)?
5. What are some of the management actions implemented by Parks Canada, if any, to regulate mountaineers' behavioural activities? (For example: are numbers regulated numbers, access, gear, permits etc.). Is it clear why they have been implemented? How might these

- management actions affect mountaineers' experiences (facilitate or detract)? Have members mentioned some of the negative and positive aspects of management?
6. As a mountaineer, climbing for your own pleasure, in what ways do land or parks management activities **have a negative impact** your experience? **Why?** (Please be specific about locations).
 7. As a mountaineer, climbing for your own pleasure, in what ways do land or parks management activities **facilitate/enhance** your optimal experience? **Why?** (Please be specific about locations).
 8. What is your level of satisfaction with the current park/land management practices in the Mountain Parks? If you were a land manager, how would you change things to better the optimal mountaineering experience?

Interview Guide for Interest Groups: Mountaineering Council of Scotland

1. Introductory questions:
 - a. Please describe your position. How long have you been in this position?
 - b. What is your position's mandate/role within your organization? Please describe the organization's mandate with regards to outdoor recreation/climbing.
2. How does your organization act on behalf of mountaineers/ act as an advocate for mountaineers' interests? How do you interact with National Parks – can you make suggestions to them? How do you interact with mountaineers/ your members?
3. Are you aware of specific management plan or component of a broader management plan that addresses mountaineering in Scotland? Can you describe it? What role does your organization play in the development of the mountaineering experience in Scotland?
4. When acting as an advocate organization for mountaineers, what are some of your main considerations when facilitating recreational mountaineering (safety, rescue, visitor satisfaction, accessibility, avoiding environmental impact, private land issues etc.)?
5. What are some of the management actions implemented by National Parks in Scotland, if any, to regulate mountaineers' behavioural activities? (For example: are numbers regulated numbers, access, gear, permits etc.). Is it clear why they have been implemented? How might these management actions affect mountaineers' experiences (facilitate or detract)? Have members mentioned some of the negative and positive aspects of management?

6. As a mountaineer, climbing for your own pleasure, in what ways do land or parks management activities have a negative impact your experience? Why? (Please be specific about locations).
7. As a mountaineer, climbing for your own pleasure, in what ways do land or parks management activities facilitate/enhance your optimal experience? Why? (Please be specific about locations).
8. What is your level of satisfaction with the current park/land management practices in Scotland? If you were a land manager, how would you change things to better the optimal mountaineering experience?

Interview Guide for Intermediate Mountaineers

1. Introductory questions:
 - a. Have group members profile their mountaineering capabilities (intermediate etc.) based on experience, specific climbs.
2. Please describe your BEST mountaineering experience including: aspects of the trip that made an impact on you, how (and what) elements of your trip “came together” to make it memorable.
3. Please describe your WORST mountaineering experience including: aspects of the trip that made an impact on you, how (and what) elements of your trip “fell apart” to make it a negative experience.
4. Were any of these BEST/WORST experiences affected by the locations in which you were climbing or the type of management plan that was in place (e.g. park fees, summit permits, access regulations etc.)?
5. What are the single-most frustrating and satisfying elements of your mountaineering excursions?
6. Would you alter your activities based on Park rules and regulations? If so, how? How do these regulations affect you?
7. What are your tolerance levels for management actions decided by parks? Will you still go climbing if the area is heavily managed, if there is reason for that level of management?
8. How do you feel about the levels of consideration for visitor experience as climbers in Canada’s national parks?

Appendix 3. Interview Analysis Table Example

Interview #2 – Mountaineering Guide

02 July 2011, Leysin, Switzerland

Analysis conducted: November 2012

Legend:

Mgmt – management

Ppl – people

Quals – qualifications

SAC – Swiss Alpine Club

Switz – Switzerland

FAC – French Alpine Club

Avi – avalanche

Notes:

- 19 of these tables were created – one for each interview
- Components and their corresponding 7Cs are noted in this format: SOLITUDE (component) – CATHARSIS (7C)

Question	Answer	Experiential Elements	Facilitating and Detracting Mgmt Actions	Accepted and Reasonable when...	Mgmt actions to be implemented and considerations
Describe your job/role.	- Director at ISM and an ACMG qualified guide/instructor - Started working as an aspirant guide, alongside a fully qualified guide and ISM kept asking me back –13 years				
Areas in which you have climbed and guided	- New Zealand, Australia, Tasmania, lots in America (Mount Whitney, Death Valley, Yosemite), Canada, Alaska, all over Europe (Switz, France, Italy, Slovenia – I love Slovenia and Kyrgyzstan) and the Himalayas				

Experience with intermediate mountaineers	- Had a big re-vamp at ISM a few years ago – wanted to pull the programs together a bit more - Wanted to make sure we got the right ppl on the right courses – we are one of the few companies that is known as a MOUNTAINEERING SCHOOL – we had to get back to our roots and make sure there was a good thread running through our courses - “Part of ppl’s learning is through experience – progressive learning comes from being guided at a slightly higher level so you know what it’s about...has to be a progression”	LEARNING - CREATIVE OPPORTUNITIES	Facilitator: making learning a priority in honey pot areas – ensure climbers have access to educational organizations	Accepted when: specific areas are known to be busy with inexperienced or intermediate mountaineers	Educational climbing organizations like ISM or Yamnuska could work in conjunction with Alpine Clubs and Parks – to educate people about climbing mentorship and environments and other opportunities
	- How do you judge who to put on which course? - “Pat can look at the routes they’ve done and get a feel for their experience level. A lot of this has to do with our experiences dealing with ppl.” - “Ppl want to enjoy themselves and learn” - “To do a big route in the mountains, mentally, it’s a big step. Ppl are hard working, money is tight and they’ve got a certain amount of holiday and they want to make the most of it” - It’s about coaching ppl, and teaching stages of climbing and allowing them to enjoy their experiences – those are the two sides of my job – the relationship with my clients and teaching them, and their enjoyment - You can’t necessarily say that intermediates won’t hire guides because they may have many different reasons for hiring a guide...their partner can’t join them, they only have a certain amount of holiday left etc.	Ppl want enjoyment and mental challenges – FUN and CHALLENGE	Facilitator: different opportunities above one’s mountaineering experience with positive atmosphere	N/A	Mountaineering mentorship, guiding agencies properly assessing abilities of clients and working within Parks limits to take them to safe mountaineering locations
Cultural differences	- “Canadians and New Zealanders will go into the mountains and have those sorts of adventures and rise to those challenges because that’s a cultural thing. In Canada, how many ppl my age would employ a guide to take them on a moderate peak, like the Wapta? Probably nobody – they would go and do it themselves. Whereas in the Alps...quite often they’ll be guided. Here, you’ve got two days off, you’ll go to the local guide’s bureau and	Canadians – doing it themselves - INDEPENDENCE – CONTROL	Facilitator: Should be optional to hire a guide	Accepted: hiring of guides accepted when it will limit number of inexperienced climbers in a busy/dangerous /environmentally	Allow guides to operate in most areas in Parks and if areas are environmentally sensitive or dangerous, can have mandatory guiding in place

	you'll employ a guide to do that route. Culturally, it's quite different." - UK: "Historically, ppl in the UK are a very adventurous ppl. They'll go out and have these adventures. They're the first into many areas around the world. It's always been in them, from sailing across the world in the early days. Clients come to me to gain more experience in the CRAFT of climbing – the placing of gear, setting up anchors and belays. Once they've got that experience, they'll go out with mates and practice." - UK: Not many bolted routes – you've got to know how to place gear and how to trust it – all requires a huge learning curve - "Brits are very much go out there, travel, get stuck in, adventure but there a big culture of learning too". They won't employ a guide for a day, but they will hire a guide for a course to TEACH them how to do it themselves			sensitive area and when ppl's time is limited and they want to get to summit	
		ADVENTURE – CHALLENGE	Facilitator: not too many external rules and regulations, installations etc.	Some external rules and regs accepted when areas are environmentally sensitive	Leave ppl mostly to themselves except when it comes to travel in environmentally sensitive areas
		Brits first into many places - DISCOVERY – CREATIVE OPPORTUNITIES	Facilitator: Feeling as if you are in an untouched, new landscape – avoid many signs of human use	Accepted: Installations and signs of human use are accepted when they are obviously managing a capacity or environmental degradation issues	Minimal installations in the backcountry.
		Learning the CRAFT of climbing is positive – CHALLENGE	Facilitator: Access to guides, alpine clubs, instructors, mentors		Advertising that mentorship is positive for many reasons
		Teaching yourself is a POSITIVE – LEARNING PROCESS – CREATIVE OPPORTUNITIES	Facilitator: Guide books, maps and instruction books on how to climb to teach yourself		Self taught is good, but only to a certain extent

Describe the differences in guide certifications	- In order for a European IFMGA guides to work in Canada: online test and questionnaire, hour long presentation on the Parks, mgmt., ecosystems etc. It's a prerequisite for you to get a permit to guide in the Parks. Also have to be an associate of the ACMG so you have to pay for that. Need short term insurance and then the permits that you have to buy (various permits to deal with bad conditions) - "It's all about giving your clients a better time when in Canada. You impart more knowledge." - Don't have to do any of that in the Alps - US – there are some restrictions – permitting system - Canadian guides can come work in Europe no problem - "It's frustrating. Why can't there be a reciprocal agreement, where Canadian guides can come to Europe and work, and I can come to Canada with my clients, bringing some tourism in?"	Process to have Euro guides work in Canada – FRUSTRATING (time and money) but POSITIVE in that it teaches the guides about the environment in which they are guiding and thus makes the experience better for their clients – CREATIVE OPPORTUNITIES	Facilitator: for better creative opportunities, guides should be well educated about the area and be able to impart that information to clients	Acceptable: Despite not liking to have to pay for certifications to work in Canada, it is acceptable that foreign guides learn about the Parks in which they intend on guiding if their clients' experience is improved	Perhaps reciprocal agreement should be created between European and North American guides that ensures that guides know and understand the regions in which they are guiding, but removes some of the "red tape" in applying for permits etc.
As a mountaineer, climbing for your own pleasure, in what ways do parks management activities have a NEGATIVE impact on your climbing experience?	- "It's different for everyone...and that's what we have to manage with clients because everyone wants something different" - "Any restrictions on an activity that is actually my way of life, I find really hard. For me, being in the mountains is free and open. Any restrictions like permits, having to sign in and out, having to take a SAT phone with you, take away the real adventure – which is a key element of why I do what I do. For me it's about being in a wilderness environment, being remote and having an adventure. Any of those restrictions take away those key ingredients. Or lots of people around, or lots of traffic on the routes here...I look for areas where adventure is more acute and that commitment is more acute." SOLITUDE, WILDERNESS EXPERIENCE, REMOTENESS = POSITIVE - "I look for something I haven't done before (DISCOVERY, VARIETY). I think it's a really powerful learning tool for the clients to see me working in an environment that I've not been in before...actively route finding and I'm sharing	Any restriction that affects guiding as a way of life (permits, safety regulations) are NEGATIVE – affecting FREEDOM – CATHARSIS and sense of self-reliance and lack of external regs - CONTROL	Facilitator: Eliminate restrictions based on safety concerns like guide permits, guide ratios etc.	Acceptable when: restrictions still allow for an "adventure" and a "freedom" in a wilderness context	Not too pleased about mgmt. actions that deal with safety, because as a guide he can take care of that himself (signing in and out, sat phones etc.) but is okay with environmental restrictions and mgmt. actions – like taking a waste bottle in a out of Denali or climbing elsewhere due to bird restrictions. To allow for adventure and freedom, when initiating permits and signing in and out at

	that experience with the client. I'm looking for new routes, new areas, new adventures. But I'm also very understanding of these restrictions." - <u>In the UK – bird restrictions</u> – I'm happy to climb elsewhere. I'm really happy to check into Parks, like Denali, and take a waste bottle with me and hand it in at the end of the day. It's a good thing – it keeps the mountains clean. It's important that restrictions are put in place now because the mountains are getting busier and busier. When I get there I want a complete wilderness experience." - "I also like flexibility. I like being able to climb for 3 or 4 days and not see anyone. Climbers and mountaineers are free-spirits." - <u>Can you think of a climbing trip where you had a bad experience?</u> No not really, just take it as it comes. In Kyrgyzstan, permits haven't come through but that's all part of the experience. - "I guess the one thing that curtailed a climbing trip...when I was in NZ, they stripped all the huts of everything. You had to take your own stoves and sleeping bags. They took away the ease of access. It's hard enough to get in there anyways. But it was more of a wilderness experience" SPARSELY EQUIPPED HUTS = NEGATIVE – yes because it makes access harder but it allows for more of a wilderness adventure - "There's climbing the mountains, there's the cultural side of it, there's the place, the environment, the ppl you are climbing with. All that makes up the mountain climbing experience." - <u>Guiding and the experience:</u> "As a guide, you're not just advertising a route – you are advertising the whole deal...when you don't know what is around the corner, that's exciting and that is being in the mountains."				the beginning, make sure safety restrictions are eliminated for the duration of their trip.
		Real adventure - ADVENTURE - CHALLENGE	Facilitator: different challenges for different mountaineering abilities present in a certain area		Use Explorer Quotient systems and visitor surveys to determine the types of users you can tailor the climbing for.
		WILDERNESS ENVIRONMENT – CONTEXT	Facilitator: Untouched landscapes	Waste bottles and trail mgmt are accepted because they keep the mountains clean for the next user. Accepted in busy areas.	Mgmt actions that are designed to keep land clean, or to prevent degradation of the landscape – waste bottles, trail mgmt. to prevent erosion etc.

	EDUCATING CLIENTS ABOUT FULL EXPERIENCE = POSITIVE, DISCOVERY, FLOW = POSITIVE - Good to be self sufficient as a climber – commit to being up in the big mountains for some time - Have to have the right weather conditions, the right snow conditions, mental conditions, physical conditions and it all has to be working together – FLOW - If an area was blocked off for trail mgmt: “Well, then that’s understandable because they are managing the trails. You just find an alternate route in. By not going into an area you wanted to go to, you’ve not done your research...you might end up in another area and that may open your eyes a bit. You can explore more and it’s all part of the trip while going climbing!” – ACCEPTANCE	REMOTENESS – CONTEXT	Facilitator: Allowed access into remote areas that aren’t heavily managed – few trail signs, few signs of human presence	Accepted: when the landscape is fragile, basic and less invasive mgmt. techniques accepted (ones that aren’t visible during your expedition like avoiding trail signs etc.) Installations and mgmt. actions accepted when present at easily accessed areas to control people more (parking fees, purpose built paths, quotas). Not accepted as much in pure backcountry wilderness	More obvious mgmt. in heavily used areas and less invasive mgmt. for remote areas (fewer ppl will make the trek in to climb there anyways so impact won’t be because of numbers).
		Lots of traffic on routes affects SOLITUDE - CATHARSIS	Facilitator: fewer people on routes	Restricting numbers in certain areas is acceptable when it is one of the only places to climb with good, easy access. Dispersal is acceptable when it’s not too hard to access the other areas suggested.	Restrict numbers into certain areas? If geography allows, provide several areas with easy access to climbs to diffuse people so routes aren’t super crowded Educate ppl about other mountaineering opportunities.

		Commitment has to be acute, should be self sufficient as a climber – REAL CONSEQUENCES and RISK – CONTROL	Facilitator: allow people to put themselves in risky situations - do not restrict access to sketchy areas, do not force the hiring of guides in these areas, avoid installations that prevent risk	Accepted when tunnels, lifts and guides make things much safer in a very dangerous area with previous history of mountaineers' deaths	Provide info to park users on ratings of climbs and do not attempt to monitor the safety in these areas. Ensure users know that they are "on their own in the backcountry".
		Wants flexibility to climb where and when he wants – LACK OF EXTERNAL REGS – CONTROL	Facilitator: Passive rules based on prevention – not necessarily in your face forced compliance	Rules and regs accepted when there is more education available about why regs are in place. Accepted when you are a responsible user. If you are an irresponsible user, you prob won't like the rules	Education about rules and restrictions and why they are in place. If bird closures are explained, they are more easily accepted. Closures could actually facilitate the DISCOVERY element of mountaineering – forcing ppl to go to other, different areas.
		Looks for things he hasn't done before – VARIETY – CONTEXT and DISCOVERY – CREATIVE OPPORTUNITIES	Facilitator: Offering different objectives and varying forms of access. Detractor: if you only allowed access to		Information on different mountaineering opportunities in the Parks.

			certain routes on peaks – wouldn't allow ppl to try new things in the area.		
		Facilitates his and his clients' experience when he can educate his clients about the FULL experience – CREATIVE OPPORTUNITIES	Facilitator: education about multiple parts of the mountaineering experience – environment, community, history etc.		Guides and guiding agencies can work with Parks to educate clients and visitors about the area – allow for fuller appreciation
		All elements come together mental conditions, snow, your physical condition – FLOW – CONTROL			Use a system like EXPLORER QUOTIENT TYPES to identify different user groups and how to provide for them
		EXPLORATION of and access to new areas due to closures – CREATIVE OPPORTUNITIES			When certain areas are closed due to environmental concerns – educate visitors on other equally accessible areas with mountaineering opportunities.

In your role as a guide, do you feel that there are similar mgmt. activities that NEGATIVELY impact your clients' experience (for example, have they mentioned anything negative about mgmt.)?	- They mention the experience in the huts, the food provided on the trip - Only time they talk about busy routes is when they've experienced something like the Matterhorn or the Mont Blanc – people are standing on each other's hands! BUSY ROUTES = NEGATIVE - I HAVE TO MANAGE THEIR EXPECTATIONS – “I try to educate them about other, less pressured areas.” - “I'd like clients to play more of a role in their experience, rather than just clipping on to the end of the rope and surviving...” EDUCATION = POSITIVE - Do areas manage numbers? - NO – on the Mont Blanc, there's the Goûter Hut and the Tete Rouge Hut so ppl can summit from both. “Until recently ppl were camping under tables and on chairs in the Goûter hut – it was rammed full. They could do more to manage numbers.” BUSY HUTS = NEGATIVE - “Now there is someone low down on the trek, asking ppl if they have a booking at the Goûter hut and if now, they are told to stay elsewhere. This limits people somewhat.” - <u>So, no one is collectively managing the areas?</u> - No, I don't have to sign in or out - If there is no space in the hut, you can bivi outside - “These honey pot areas need to be better managed and numbers have to be reduced as well as reduce the impact on the environment. The other areas need to be less restricted to allow us to educate our clients about what the rest of the mountains are all about!!” – possible mgmt. action? - <u>More flexibility, but this leads to crowding?</u> - Yes but those peaks are always crowded anyways - WEATHER CONDITIONS ARE THE ONLY LIMITING FACTOR and to a certain degree the space in huts in the ALPS - <u>Are numbers in huts based on environmental considerations?</u> - Some huts don't put back what they should into the	Busy routes = Negative – SOLITUDE – CATHARSIS			Sounds as if ppl have to experience busy routes in order to know that they don't like them. Could avoid this pressure by explaining the experience and that a key element of it, for most climbers, is SOLITUDE. Guides could contribute to this by educating their clients and managing their expectations.
		Educating clients about other climbing opportunities allows them to experience other climbs and other areas – POSITIVE – LEARNING PROCESS – CREATIVE OPPORTUNITIES AND VARIETY (based on their learning)	Facilitator: Access to information	No information on a certain area is acceptable when Parks are attempting to keep ppl out of an environmentally sensitive area?	Single, one-stop source of info is positive – avi forecasts, route conditions, advice from guides – Bureau des Guides? Consideration – sometimes too much info makes ppl feel invincible
		Busy huts – Negative for the environment and for solitude – CONTEXT and CATHARSIS	Facilitator: access to huts that are NOT overcrowded. Limits should be placed on	Limits on numbers in huts accepted when climbers are looking for solitude and	Regulations should be established that limit hut capacities, based on environmental carrying capacities. Huts should also be

	systems – possible contribution to mgmt. from ACs and huts? - “At the Goûter hut, you are still going to the toilet down a cliff. Now, there’s a helicopter that goes in every other day with food, so why aren’t they taking rubbish and toilet stuff away?! It’s very expensive to stay there...so they should be making the effort to put that money back in. Maybe 20 years ago, it was okay to be pooing over a cliff but not today, and not with the sorts of numbers we’re talking about. It’s embarrassing. It’s embarrassing for the clients because they’re more switched on to the environment these days.” NOT ENVIRO-FRIENDLY = NEGATIVE - <u>Who should manage these areas then?</u> - The cantons should limit numbers at certain huts. - The education has got to come from guides, alpine clubs and the various cantons - This would be hard however – Ethos of letting everyone in at the SAC huts - “They are making it so easy to get to the hut, they flash every boulder with paint” ROUTE MARKING = NEGATIVE - “If the telepherique could run in all weather, it would just to get ppl up there! The reason the guides are avoiding the glaciers lately, is that they’ve receded so much that they aren’t safe to climb on. It’s not because the area has been deemed special for protection.”		hut capacities	when environmental concerns are a priority	sustainable (human waste, food etc.)
		Areas need to be better managed to reduce numbers and reduce impact on the environment – CATHARSIS and CONTEXT	Facilitator: Number quotas in place	Accepted: when quotas are explained based on environmental concerns	Visitor surveys to determine main reasons for visits – if solitude is a major factor, then numbers quotas wouldn’t be a bad thing
		Route marking making access easy and therefore flooding areas with ppl – Negative – affects ADVENTURE – CHALLENGE, WILDERNESS EXPERIENCE – CONTEXT and SOLITUDE - CATHARSIS	Facilitator: fewer trail signs and paint on approach trails –	He doesn’t really accept this	Maybe put up a map and produce trail maps at trail head instead – make people find their own ways – get ACCs, guides and mentors to teach navigation and make it a focus to avoid littering the landscape with signs

As a mountaineer, climbing for your own pleasure, in what ways do parks management activities FACILITATE/ENHANCE your optimal climbing experience? And if there is a reason for mgmt actions, does that improve your experience?	- “The beauty of what you have in Canada is that you don’t have the numbers. You have Canmore and Banff...and Jasper to a smaller extent [as bases].” - “It’s easier to manage climbers coming in because the bases are so small. That’s why it’s so great climbing and working there – it’s a real hub! It’s exciting to be part of that hub. Here, you’ve got a base in Chamonix and other bases ALL over the Alps. The numbers coming in are massive.” COMMUNITY = POSITIVE, ONE PLACE FOR EDUCATION AND SHARING = POSITIVE - UK: “There are no restrictions on numbers going into the mountains up there, there’s no need to sign in or sign out, there’s no permits to work up there.” - “The only places I’ve been to that actively manage areas for the environment and for wildlife, examining numbers and seeing how to progress, are Canada and Alaska.” - “Clients come in with a plan. But breaking the plan is the FABRIC OF MOUNTAINEERING.”	Smaller climbing bases or hubs with consistent sources of info positively affects the way ppl share – COMMUNITY – also easier to manage – exciting to be part of that community – SENSE OF IDENTIFICATION - CHRYSALIS			One hub, source of info, or a collaboration between guides, alpine clubs, Parks – to physically meet local climbers. Online forums are good too. Good to distribute info on closures, conditions and fostering a community. Parks Canada doing this well so far – adopted a consistent delivery method for avi info.
		Breaking the plan = Fabric of mountaineering – CREATIVE OPPORTUNITIES and EXPERIENCING UNKNOWN - CONTROL	Facilitator: Allowing mountaineers to change their travel plans		Only require signing in/out and following strict travel plans when in areas deemed very dangerous by Parks (e.g. Denali)

Have you noticed a difference in what your clients expect based on location? Do ppl who come to work with you in the Alps want different things than they want in the UK, or the Himalayas?	- “I don’t think they do actually. The reason they keep coming back to you is because you’ve got a great relationship with them (COMMUNITY) and because you go and do different things (VARIETY). You go and have these adventures with clients. And whether you are in Switz, or France or abroad...clients are there because they want to be a part of that. They want to have the full experience.” - The reason I like going ice climbing in Italy is because [full experience] I like the lovely family run hotels, the valleys are beautiful, the climbing is fantastic, it’s not too busy...” - <u>If a company can do that – hook ppl in with the “full experience” as opposed to “the route”, can a Park do the same thing?</u> - Yes – that experience doesn’t even have to be labeled at a specific technical level (well...Parks says it has to be labeled to tailor to certain Explorer Quotients...) “It’s about going climbing in a mountain environment with beautiful mountain views, having a wilderness experience, seeing some wildlife, building some relationships with the ppl you are with. For me it’s very much about the adventure element too.” - “You get kitted up, you’ve got to check the weather forecast, you’ve got to find your way to the telepherique...do you put your crampons on right away or not? You’ve got to make all these decisions. And that is what it is about.” - “Some ppl need to have a busy experience in order to understand it thoroughly. A busy hut? Well, lots of ppl live in London and they think they won’t mind. Educating them about the other experiences will take a long time.”	If guides teach their clients how to do it themselves, they build a relationship – Positive – COMMUNITY and it can lead to different climbing opportunities for them – INSPIRES CONFIDENCE – CHRYSALIS - VARIETY - CONTEXT	Facilitator: Do exactly that – get guides, Parks and Alpine clubs to teach intermediates how to do it themselves		COLLABORATION – if Parks can work with guides and the ACC to develop a vision or ethos for guides in the Parks, part of that could include building relationships with clients, and helping clients to build relationships with their environment. Parks is doing this well already – need to share strategies with participating organizations – to “advertise” the experience and how to achieve it.
---	---	--	--	--	--

	- <u>How climbing is CHANGING</u>: "...but who knows what climbers will want in the future? Do they want a safer experience? Do they want more quick hits? Do they want more time in the Valley at 3 star accommodation? Has it become just a sport? There are more and more ppl who want to go up on the first telepherique, then come back down to the valley and have a few beers. There are more ppl enjoying less time in huts and spending more time in the valleys with their families...They seem to want the buzz with a bit less adventure. They would rather sit and post their pictures of their climbs on Facebook, rather than sit down and get drunk with a mate and chat about it."	All elements coming together – views, relationships, adventure – FLOW – CONTROL	Facilitator: Have as many of the critical factors met/accounted for in a certain expedition		Use a system like EXPLORER QUOTIENT TYPES to identify different user groups and how to provide for them
Are you aware of any specific management policies in place in your guiding locations? Is it clear why certain management actions, or lack thereof, have been implemented?	- If anyone wants to climb Mont Blanc, they can? "Right. And the only thing stopping him is the lack of space in a hut. Apart from that, there is nothing. I'm not part of the SAC, and I don't know what sort of education they do. They have a magazine that comes out monthly. There may be some educational info in that."				

What is your level of satisfaction with the management practices in the areas in which you guide? If you were a manager in the Swiss Alps, or the in UK, how would you change things?	- “As a guide, I think ultimately, I would like to try to educate ppl through our website, about the complete experience of mountaineering and climbing. I would like to try to hook ppl in for those reasons. I’d like to run courses in the UK – because it’s about building those relationships. I’d like to teach the skills so that they can play a part in their own experience.” - Education on signs re flora and fauna and avis: “You have to find that out yourself here. In Canada, that education is right there in your face (good) so that you can pass that on to clients. If you go to Banff, every one goes through the gates and you get that info. Where do you go here?! Chamonix?! The guides’ office is a private organization. That education has got to come from schools, guides, trek leaders, and alpine clubs. Canada has one major climbing forum whereas over here you’ve got climbing forums in every country, in every area, in every language!” - HUTS: “I think the SACs could employ more guides in huts – to educate ppl about their environments. They could have more of a role in providing sustainable services, like locally sourced meat and food for the huts...The Moiry hut has mad an effort to show lots of rock routes behind the hut, to avoid a lot of pressure on one route. And GUIDE BOOKS are an opportunity to educate too. These days, the books don’t tell you much about the history of some of the routes, the flora and fauna on these routes – they just present a tick list.”	Positive to see signs and interpretive information in Canada – appreciated-EDCATION/LEARNING PROCESS – CREATIVE OPPORTUNITIES	Facilitator: interpretive signs and info available	Interpretive information and signs accepted when goal in area is to educate ppl, most likely in busy areas.	HUB/Guides’ office. idea again. Guide books have opportunity to educate as well. Huts can do this too.
---	---	---	--	---	--