‘Bushcraft’ and ‘Indigenous Knowledge’: transformations of a concept in the modern world

Lisa Fenton

Thesis submitted in fulfilment of the requirements for the degree of

Doctor of Philosophy

School of Anthropology and Conservation

University of Kent

100,607 words

2016

To my son Finn

Abstract

The relationship between ‘bushcraft’ and ‘indigenous knowledge’ is investigated through a historical review, an examination of ethnographic literature, fieldwork amongst bushcraft practitioners, and through original case studies. Fieldwork was carried out in Sweden, the USA, and the UK. Case studies of the Saami ‘kuksa’, the ‘figure 4’ deadfall trap, and making fire by friction are used to explore a number of themes in the contemporary bushcraft world: the role of skilled-practice, ethical values, notions of an individually experienced connection with nature, practice as a personal transformative experience, and as an intersubjective relationship between practitioner and craft engagement with the material affordances in the landscape. It is argued that motivations for practice foreground a relationship with an environmental experience that counters ‘alienation’ through the development of techniques required to spend un-insulated time in nature which counter modern Western technocratic lifestyles. Bushcraft destabilises apparently similar categories of activity, particularly tourism, outdoor adventure recreation and education, historical re-enactment and survivalism.

Acknowledgements

I wish to extend my gratitude to the bushcraft community members, many of who contributed their time, experiences and thoughts in various ways, particularly by responding to a lengthy questionnaire survey. I am indebted to many of my professional colleagues who generously contributed their time in support of this research. In the UK I particularly wish to thank Ben McNutt, John Rhyder, Paul Kirtley, Joe O' Leary, Dave Watson, Paul Moseley and Stuart Goring. In the USA am truly grateful to Josh Bernstein of Boulder Outdoor Survival School (BOSS) for permitting me to conduct ethnographic research during commercial field-courses, and especially to the incredible and hardy souls of the BOSS field-staff for accommodating both my enquiries and the presence of my eight month old son, who accompanied me in the field. Accordingly, thanks go to Bryan Pushkar, Steve Dessingar, Laurel Holding, Kirsten Rechnitz and Heath Miller. Also in the USA, I extremely grateful to Larry Dean Olsen, David Wescott, David Holladay, and the late Steven Watts for their patience with my queries and interviews, and for providing thought provoking discussion and in sharing their life histories and experiences.

In northern Maine, I owe my sincere thanks to Alexandra Conover Bennett and Garret Conover of North Woods Ways for not only hosting my little family and patiently responding to my endless questions, but also for the precious memories of our times spent together journeying through the north woods winter landscape, and for introducing me to the delights of the winter trail. More thanks go to Tim Smith for generously hosting us during his courses at Jack Mountain Bushcraft in Maine, and for lively discussions that helped formulate my thinking. Similarly, I extend my gratitude to Juha Rankinen for accommodating and accompanying my travels and enquiry in Sweden, and for providing critical insights and discussion. Also in Sweden I owe thanks to Lars Fält and Bosse Westlien for their generosity in hosting me and for sharing their thoughts, life histories and experiences.

I am grateful to Ray Mears for his guidance and teaching in my early career and also to the memory and influence of Rachel Mears. Thanks are also due to the staff and apprentices of Woodsmoke, who have continually shaped, challenged and inspired my own practice and teaching.

I am particularly grateful to my supervisor Professor Roy Ellen, for his patience, guidance, suggestions and support throughout this challenging endeavor. I must also thank Dr. Simon Platten and Dr. Rachel Platten for their assistance and encouragement in gaining the opportunity to write this thesis, and Dr. Rajindra Puri for assisting my application. I am deeply indebted to Professor Zoe Playdon, without whose unwavering support, friendship and ongoing guidance and scholarly discussion, this thesis would simply not have been produced. I am also very grateful to Kate McNutt for her assistance in the final stages of the document.

A huge debt of gratitude is owed to my loving family, who have provided the emotional and practical support required with the arrival of my lovely son, early in the doctoral process. It is commonly said that it takes a village to raise a child, and it certainly took a village to raise a child and undertake doctoral studies. My deepest appreciation, therefore, goes to my friends and family who held me together when sleep deprivation and motherhood threatened to overwhelm me, and who supported me in all the ways that matter most to a person. Especial thanks go to my mother, Eleanor Fenton, without whose continuous emotional and practical support this thesis simply could not have been produced. Similarly, to my father, Peter Fenton, and my sister, Katie Law, whose belief in me kept me going during the most challenging times.

Finally, I am deeply grateful to my partner Ben McNutt for his love and support in enabling this work.

This work was supported by the Economic and Social Research Council [Studenship grant number ES/H010386/1].

Table of Contents

Table of Figures

Chapter 1 : Introduction

1.1 Summary 1.2 Research Rationale and Enquiry 1.3 Fieldwork Locations and Research Methods 1.4 Bushcraft as Third Space 1.5 ‘Indigenous Knowledge’ and its Interpretations 1.6 The Etymology of the Term ‘Bushcraft’ 1.7 Outline of Thesis

1.1 Summary

Springing from ideas of 'wildness' that underpinned the European colonial project from 1500 onwards, modern bushcraft emerged in the post-war era as a complex mixture of ‘Indianism’ (Kalshoven 2012), military survivalism, nature mysticism and ecologically-aware self-sufficiency. Contemporary bushcraft, popularised and thereby epitomised by Ray Mears's television programmes, is now mustered as a serious leisure activity; a commercial endeavour; an educational practice; and a therapeutic intervention. It frequently references its practices to indigenous knowledge. At the same time, bushcraft appears to be a kind of bricolage, assembled from a range of sources. It draws on, experimental archaeology's recreation of lost processes from the Palaeolithic onwards; observed practices from European and colonised cultures; military survivalism; ecological conservation; traditional woodcrafts; hunting and foraging; transcendentalism and romantic sensibilities; and group, complementary and humanistic therapies. This thesis, therefore, examines the meaning and the meaningfulness of the links between contemporary Western enactments of 'bushcraft' and practices associated with ‘traditional indigenous knowledge’. It demonstrates how processes of transformation and invention both assert and elide their relationship.

In this inquiry, investigations regarding the relationship between ‘bushcraft’ and ‘indigenous knowledge’ take place in three fieldwork locations: Sweden, America and Britain. Three case studies, namely the Saami ‘kuksa’, the ‘bow-drill’ friction fire-lighting technique, and the ‘figure 4 deadfall’ trap, relate these fieldwork locations to skilled practices and concepts of knowledge, craft, skill, tradition and know-how. The purpose of the case studies is to ground in practice the theoretical principles and positions used in the inquiry. In particular, they seek to illuminate the ways in which embodied practice might

respond specifically to the present 'ecological crisis', as comprehended by the West: the general dissolution of a direct, sentient experience of the self amid the natural world (Moran 2009; Gare 2006; Foster 2000, p. 16). This alienation from the self as an ecological presence perpetuates some of the deeper presuppositions and psychodynamics of modernity. In particular, therefore, the depth provided by 'lived experience' in the form of participative case studies, may provide a relatively stable focus for practice. This may counterbalance the sense of alienation from the natural world that is linked with modern, urban, capitalist lifestyles (Vogel 2012). In this reading, the contemporary Western phenomenon of 'bushcraft', with its aspirations to associations with 'traditional' features of 'indigenous knowledge' and practices, represents such a responsive position in the form of personal practice and radical education. I conclude by identifying 'bushcraft' as a personal discipline in an individual search for self, which reveals a desire for embodied connection with natural environments.

1.2 Research rationale and enquiry

The particular focus of this enquiry was formed in response to several issues: firstly, a recent and so far unexplained acceleration in the popularity of bushcraft as a practice and concept, in the UK and globally and, secondly, because bushcraft practice today demonstrates claims to knowledge, know-how and influence which derive from various founts of indigenous knowledge and spring from many different locations, epochs and cultures.

By focusing on how people come to engage with and attain the skills required for practicing bushcraft, this thesis examines the historical and contemporary linkages between bushcraft and indigenous knowledge through the lens of skilled practice. Each of these aspects interacts with the moral values of bushcraft practitioners, shaping what such practices mean for practitioners in a postmodern, Western, urban society. This thesis shows how bushcraft practitioners engage with nature and focus on ways of 'knowing' through 'doing' and 'being' rather than through externalising and objectifying the natural world. Ultimately, the thesis aims to contribute to existing ethnobiological understanding by investigating how, through the practice of bushcraft, individuals in the West come to know their natural environment, and how knowledge is both perceived and utilised within this context.

The aim of this research is to examine three distinct but related issues: the definition and significance of bushcraft; its association with traditional indigenous knowledge as a protean, incompletable, transformative relationship; and bushcraft's consequent identity as a permeable, fluid, 'third' space. I will, therefore, scrutinise the concept of 'bushcraft' and associated domains and examine the role and perception of traditional indigenous knowledge within the domain of 'bushcraft' and its associated practices. Additionally, I will locate the physical and ideational linkages between bushcraft and indigenous knowledge and discuss the transformative relationship between practitioners and their practice, through their own learning and teaching. My research questions are, therefore:

1. What is bushcraft?
2. How is bushcraft knowledge selected, produced and transmitted?
3. What is the meaningfulness of the relationship between bushcraft and indigenous knowledge?
4. How does bushcraft practice transform indigenous knowledge?

1.3 Fieldwork locations and research methods

Fieldwork was undertaken in parts of Britain, North America and Sweden. However, because bushcraft is a global phenomenon and represents a diffuse 'social world' (Unruh 1979) it does not reside in any particular physical place or easily definable community, and has no central structures or institutions. Bushcraft is a concept held and practiced by individuals and practitioners who are as diverse and disparate as the concept itself is fluid. Therefore, the research could not easily be located within a single physical location or well-defined community. Rather, the research 'location' is, to some extent, a virtual one, constructed from the work and views of key individual practitioners, educational course providers and expressed through the mass-media. It is, ultimately, a commercial and recreation 'scene' (Irwin 1977) that produces somewhat diverse but nevertheless distinctive and cohesive styles. Britain, Scandinavia and North America were chosen as field sites for research since they contain the most influential streams of ideas, concepts, practices and media and commercial products, which frame various formulations of bushcraft practice. Nonetheless, it is crucial to note that the research revealed that Britain

is the hub for the latest formulation, production and dissemination of ideas, practices and commodities.

My investigations centred on three broad types of data and groups of informants: (1) the histories, media productions, experiences, motivations, rationales and practices of key (or notable) practitioners who act as conduits or sources for bushcraft knowledge and practice; (2) the work of professional practitioners who are primarily concerned with the educational practices (commercial or otherwise); and (3) the experiences and motivations of recreationalists such as hobbyists and amateurs. Whilst recognising that these categories are also fluid, these practitioners were at various stages of their practice and, accordingly, yielded particular types of insight. The life histories of key practitioners yielded insights into the sources of and influences on their bushcraft skills (such as particular individuals, books or institutions), how this occurred and why, and how particular practices came to be chosen for the 'syllabus'. Bushcraft school owners and educationalists offered insights into the ways in which such knowledge was used, consumed, contextualised, transferred, transformed and performed. Meanwhile, the experiences of recreationalists, who were on the receiving end of educational, media and commercial experiences, provided clues as to how bushcraft is generally perceived and experienced during the process of skill acquisition, as well as the rationales and motivations individuals had for adopting practices in their daily lives. Although not all practitioners are taught directly by other individuals, since many now use popular mass media channels such as books, television, DVDs and YouTube, all practitioners must 'learn', because bushcraft is a skills-based discipline and learners set out to acquire skills in its core practices.

These three identifiable categories of the notable, the professional and the recreational, grew out of my search for areas of convergence and divergence within the explicit and implicit practices of a range of bushcraft practitioners. They broadly correspond to producers, transferers and consumers of knowledge, whilst all remain learners. I further suggest a distinction between 'back-yard' bushcraft (as it is sometimes referred to by practitioners) practiced in 'safe', more domestic localities, such as during recreational walks, in local woodlands and domestic areas, and wilderness bushcraft practiced in remote and 'wild' locations, characterised by a 'journey'. Again, these are fluid categories since

practitioners may be situated in one or other location at different times during their practice.

The anthropological literature exploring and analysing concepts of the embodiment of knowledge in skilled practice (Downey 2010; Downey 2007; Lee and Ingold 2006), craftsmanship (Marchand 2008) and enskillment (Pálsson and Helgason 1998; Pálsson 1994) highlights the advantages of ethnographic work in which the anthropologist undergoes forms of apprenticeship, particularly where knowledge tends to be tacit rather than declarative. So, in working alongside those with skilled knowledge, the ethnographer gains an embodied understanding of the ethnographic subject. According to Marchand (2008, p. 249), 'the apprentice-style method of inquiry has been steadily incorporated into anthropology's canon of standard field methods', which has encouraged researchers 'to pursue topics that complement personal as well as scholarly interests'. Moreover, this is significant because 'apprenticing leads academics to acquire some level of first-hand experience, and perhaps even expertise, in the practices they theorise and write about' (Marchand 2008, p. 249).

My own background in bushcraft education spans seventeen years of professional practice. This means that in addition to the research carried out for my degree, I had a prior understanding of the subject matter I researched, one that drew upon extensive field experience over many years. Of particular relevance to this enquiry, then, is my four-year apprenticeship with Ray Mears' bushcraft school 'Woodlore', which I served in the summers between 1999 and 2002, before establishing my own commercial school of practice, which has been highly influential in the field of bushcraft education since 2001 until the present. During this career I have held an inestimable number of conversations with both notable and novice practitioners, providing me with a foundational insight into what bushcraft means, how it is enacted, why people want to learn it, how they acquire it and what sources they draw on.

My established position within the bushcraft 'scene' also meant that I was recognised, accepted and treated as a respected and trusted colleague, a competent practitioner and an 'insider', by professional interviewees and bodies. This eased access to professional organisations and commercial schools, enabling the collection of most of my data through interviews, life histories,

casual conversations and participant observation. Interviews took place in the context of my participation in courses and commercial shows, gatherings and events, and these were sometimes followed-up by Skype interviews. I interviewed a range of practitioners, from novice to veteran, and from amateur to professional, with an emphasis on the senior educators of the professional group, with whom long conversations were held and from whom life histories were taken. In order to access a large number of informal and recreational practitioners I conducted several online questionnaire surveys; a large General Bushcraft Survey (GBS 2013, Appendix 1), followed by a Friction Fire-lighting Survey (FFS 2014, Appendix 2) and a Trapping Survey (TS 2014, Appendix 4). I used social media platforms such as FaceBook and bushcraft online community internet forums, as well as asking professional educators to disseminate the GBS among their databases. These complemented the usual repertoire of ethnographic methods. Additionally, I used media sources (e.g. television, print media, internet forums, blogs and YouTube) for research.

To further focus my fieldwork, in the USA I carefully considered several commercial courses offered by 'Boulder Outdoor Survival School'[1] [BOSS] in Utah. Further research was undertaken in Idaho during the annual 'Rabbitstick'[2] gathering with founders of the American 'primitive survival skills'/ 'primitive technology' movement, including Larry Dean Olsen, David Wescott and Steve Watts. I also conducted research in Maine with Master Maine Guide Tim Smith, owner of the 'Jack Mountain Bushcraft' school, established since 2001. I participated in Smith's courses, which offered further opportunities for in-depth interviews and participant observation with both educators and course participants. Finally, I conducted in-depth interviews and life histories with Master Maine Guides Alexandra Conover Bennett and Garrett Conover, co-owners of 'North Woods Ways', practitioners of classical traditional wilderness

[1]Boulder Outdoor Survival School (n.d.) claims to be the longest running survival school in the world, and was established in 1968 by Larry Dean Olsen, author of Outdoor Survival Skills (1967). It was taken over by David Wescott in 1985 (See http://www.boss-inc.com). My research visit took place in 2011 but in 1998, I also attended three courses there, lasting for a total of one month.

[2] Rabbitstick was founded in 1968 by Larry Dean Olsen, and re-initiated in 1978 by David Wescott. It is the longest running event of its kind.

skills who have influenced the field of traditional journeying and woodcraft with their life-long practice and publications.

Fieldwork in the UK included attending several commercial courses and organised bushcraft shows and events as well as involving interviews with key[3] educators across the country. Sweden's influence on UK practice in outdoor education has been a strong one, for example, through the Bridgewater Project that introduced Forest Schools to the UK (Pavey 2006). Accordingly, in Sweden, I collected life histories and conducted interviews with key professional practitioners such as Lars Fält, a Swedish military instructor who has influenced the survival and bushcraft movement significantly. Fält also had a particular influence upon the practice of Mears. I was an observing participant at 'Ekehagens Forntidsby', a primitive technology living history museum and visited 'Sjövik Folk High School - Outdoor Life-Handicrafts-Leadership' (where I interviewed the head teacher Bosse Weslien). Additionally, I spent time at Vildmark Gymnasiet (The Wilderness Academy), where I was hosted by, and conducted interviews with, head teacher Juha Rankinen. I also investigated several museums with a focus on particular folk traditions: greenwood spoon making, Saami traditional kuksa[4] carving and sloyd education.

My research has employed multiple perspectives and mixed methods of data collection (Axinn and Pearce 2006), in an attempt to 'reveal the different dimensions of a phenomenon and enrich understandings of the multi-faceted, complex nature' (Alexander, Beale, Kesby, Kindin & Pain, 2007, p. 128) of the relationship between bushcraft and traditional indigenous knowledge. Participant observation proved to be particularly relevant for the case study chapters, while the literature review and internet research were especially applicable in chapters two and three, covering the historical background. While the main focus of the thesis is to map and define a contemporary set of relationships between bushcraft and indigenous knowledge using a broadly anthropological methodology, the literature and approaches of educational and

[3] For example, John Rhyder of 'Woodcraft School', Joe O'Leary of 'Wilderness Survival Skills', Ben McNutt of 'Woodsmoke', Dave Watson of 'Woodland Survival Crafts' and Paul Kirtly of 'Frontier Bushcraft'.

[4] The *guksi*, or Finnish *kuksa*, is a small hand-carved wooden drinking vessel and a cultural product customarily associated with traditional Saami culture.

cultural studies have also proved valuable (for example the paradigm of postcoloniality). Interview data are reported evenly across chapters, since these provide evidence from contemporary practitioners in the field, which help corroborate conclusions drawn using other methods, as well as providing individual perspectives on more general issues.

1.4 Bushcraft as a 'third space'

In this enquiry, field research and an analysis of popular bushcraft literature, highlighted 'connection to nature' as being a centrally motivating concern for practitioners to engage with bushcraft practice. In order to seek connection to the natural world, there exists and inherent suggestion of a feeling of separation or disconnection from the natural world. Such an experience of felt disconnection, separation or 'alienation' from nature is an enduring sensibility in the Western European literary and philosophical canon. In literature, it endures from Hesiod's *Work and Days*, through Virgil's *Eclogues*, Elizabethan pastoral, the Romantic visionaries, Victorian novelists' denouncements of industrialism, to modernist critiques of a disintegrating, alienated urbanization such as T. S. Eliot's *The Wasteland,* the collapse of reason and causality in Samuel Beckett and Franz Kafka's work, and the more recent introduction of 'magical realism' by Salman Rushdie and Gabriel Garcia Márquez. In philosophy, it plays an implicit part in Marx's idea of a labour alienated from production, while early twentieth century existentialism, expressed in the work of Heidegger and Sartre, reflected 'a pervasive spiritual crisis in modern culture' (Tarnas 1991, p. 389). This is a concern taken up by Nietzsche, 'the central prophet of the postmodern mind' and examined by Michel Foucault's exposure of the social construction of knowledge, and Jacques Derrida's deconstructionism (Tarnas 1991, p. 395). Three theoretical strands form the core conceptual basis for this enquiry, from which a cluster of themes and positions arise. The first strand, therefore, considers the felt separation of people from the natural world a corollary to modernity, and the separation that arises from urban technological advances and capitalist processes of consumption. I argue that bushcraft, as a response to modern Western 'alienation', produces a counter discourse that considers notions of nature reconnection on the one hand, and ideas of eschewal of modern consumerism through self-sufficiency in nature on

the other. This counter discourse takes in notions of primitivism, romanticism and anarchism, which, at the extremities, can also shade into Green utopias and apocalyptic dystopias of millenarianism. In essence, the alienating forces of modernity, and bushcraft´s response, raise questions about the modern West's relationship with the natural world. The second set of issues arises from epistemological concerns, namely knowledge acquisition and experiential learning, with land-based skill as a phenomenon within which bushcraft education and indigenous knowledge intersect. Taken together, themes of traditional environmental knowledge, tacit and embodied knowledge, skill, craftsmanship, ontology, education and ecological relationships and ideologies emerge. The third theoretical strand is that of knowledge transmission leading to transformation: processes and practices of bushcraft education that unite the first two concerns – transforming the individual through land skill acquisition, while at the same time transforming indigenous knowledge through praxis.

This thesis, therefore, will explore the idea of place (nature, wilderness, wild) as separated from person by the urbanised, metropolitan, Europeanised observer, whose interpretations of it change as their ideas, values and societies change. This separation creates binaries such as nature/culture, which are expressed as shifts in interpretation, such as a changing perception of natural landscapes from savage to sublime, that there is only wilderness if you don't live there. This represents a separation and an objectification, resulting in either its valorisation or its abasement. The question is, therefore, 'How does the observer perceive and respond to "the wild"/ "nature"?' I suggest that there are two consistent, dominant, typical, emotional and psychological responses. One response is fear: nature must be conquered and civilised in accordance with the observers' objectivised values. The other response is joy, whereby nature is to be delighted in and understood in its own terms, through an intersubjective exploration of its values (Milton 2002).

Both responses may lead to transformative acts, but each response operates within different ideologies and sets of values. Both responses are amenable to questions about their underlying philosophy, the educational ideas they reflect, the political ideologies that shape them and the transformational routes and opportunities they provide to practitioners. So, they give rise to questions about both the principles and practices of bushcraft, the one

illuminating and shaping the other. They also give rise to questions about their embodiment in individual practitioners, who come from a wide cultural spectrum and who have particular, personal standpoints. This cultural range is epitomised by the binary dimensions of the two broad, generalised divisions of 'indigenous knowledge' and 'the modern world', both of which are insufficient but nevertheless indispensable categories for this inquiry and both of which are, incidentally, colonial concepts. The term 'bushcraft', while being heterogeneous and provisional, nevertheless can be seen as providing a 'third space' (Bhabha 2008, p. 55) between 'indigenous knowledge' and 'the modern world', explicitly seeking to bridge them.

The focus of this thesis, therefore, is an exploration of the third space provided by bushcraft. Its conceptual framework explores the idea that it may exist both as an 'external discipline' (physically living off the land) and an 'internal discipline' (developing the self-mastery required for living off the land). It may connect, as Marchand puts it, 'muscles, morals and minds' in providing a basis for personal formation (Marchand 2008, p. 245), bringing together the external physical skill, knowledge and dexterity expressed as craftsmanship, 'landscape literacy'[5] and land-based knowledge, and the inner world of personal values, qualities and transformations required to develop embodied, skill-based knowledge.

In between external and internal mastery is the individual's perception of, and response to, nature as the interlocutor in which the skill is made and

[5] In the 1990s American educator David Orr and physicist Fritjof Capra coined the term 'ecological literacy' or 'ecoliteracy' to describe the principles of organisation of ecosystems and their potential application to understanding how to build a sustainable human society. Ecological literacy in this sense combined the science of both systems and ecology in drawing together elements required to foster learning processes that were directed toward a deep appreciation of nature and our human role in it. Distinct from ecoliteracy, but not necessarily separate, I use the term 'landscape literacy' to describe the ability of an individual to read the ever-changing conditions and material affordances of local natural landscape, at any particular moment. That is, an ability to interpret a landscape for what it might afford the individual who has the skills and knowledge to adapt to, see into, and access its possibilities. My use of the term 'landscape literacy' differs from that of David Orr's use of the term 'ecological literacy' insomuch as landscape literacy (as this thesis will assert) requires a pragmatic and intimate working knowledge of the land, its constituents, its material affordances and its qualities and properties. Landscape literacy is not so much about the theoretical understanding of ecological systems, but is rather concerned with the alchemical potential of lively materials in transitory conditions that constitute natural landscape and that afford living and habitation in nature. Landscape literacy, therefore, is something an individual can posses without having studied the science of ecology, and is closely linked to the Gibsonian concept of affordances in the natural landscape.

mastery achieved. Thus, craftsmanship and skill-learning locates the body as the 'prime site for establishing an education for social citizenship' (Marchand 2008, p. 267). As Marchand puts it, 'Like craft apprenticeship, all learning should be embedded in a framework that scaffolds a lifelong pursuit of physical, spiritual and intellectual development, making individuals into valued and responsible agents within their communities of practice (2008, p. 267).

1.4.1 Concepts, contexts and structure

The terms 'bushcraft' and 'indigenous knowledge', and the concepts associated with them, find their origins in the practice and language of colonialism. They have been redefined and reclaimed subsequently as post-colonial concepts, and still resist a final, authoritative definition, politically, culturally and linguistically (Battiste 2011; Ellen and Harris 2000). Nevertheless, both have broadly coherent identities as contemporary practice. This is in spite of the fact that their practice is protean, accented differently according to its contexts, reactive to social, technological and cultural influences and, therefore, evolving constantly as a dynamic, set of discussions and practices.

A complicating factor is that in contemporary practice, while both bushcraft and indigenous knowledge are themselves in a constant state of flux, they are, simultaneously, a part of transformative educational practice. The transformative practices of bushcraft and indigenous knowledge, therefore, operate in three separated but connected contexts. Firstly, they operate in the context of the histories of the terms 'bushcraft' and 'indigenous knowledge', secondly, in the web of meanings that have developed to connect them and, thirdly, in the growth of educational practices through which both are a part of transformative learning. Linking these contexts is the lived experience of the practitioner-teacher and the principles, values and cultural identities through which they mediate and communicate their understandings both of bushcraft and indigenous knowledge.

This thesis seeks to clarify and contribute to these evolving concepts and practices. It adopts four main approaches. First of all, it examines the literature and histories from which ideas of bushcraft and indigenous knowledge have developed, and their shifting nuances in different cultural contexts. Secondly, it examines the educational practice of bushcraft, in three case studies, in order to

identify its key features and characteristics. Thirdly, it uses interviews with practitioners to provide snapshots of current understandings of the meanings attached to bushcraft and to indigenous knowledge, and of the relationship between their practice and those ideologies. These observations are augmented by and filtered through my own understanding as a professional practitioner since 1999. The fourth approach, therefore, is broadly autobiographical, based on reflexive practitioner research approaches.

1.4.2 Colonialism, Indigenous Knowledge and travelling knowledge

The duration, variation and extent of the colonial project, the range of indigenous peoples involved in it, and the processes of hybridisation, mimicry and creolisation through which it operated (Bhabha 1994; Brathwaite 1971), mean that the bushcraft practice which emerged from Western culture's engagement with other people, was diverse. It originated in response to a variety of needs and purposes: for example, to enable trade, to support settlement and to improve warfare. It found contemporary expression in a wide range of activities from military survival to youth movements, from wilderness recreation and therapies to ecological movements and fantasies. However, the contexts out of which indigenous knowledge was drawn – their landscapes, climates, flora, fauna, environments, populations and cultures – could be quite different from the contexts into which they were translated, as colonisers moved from one location to another. It was possible, therefore, for bushcraft to operate as a kind of fossilised indigenous knowledge, in which action was separated from context, and therefore from function. In some instances, therefore, it resembles more an aesthetic endeavour, or perhaps even a caricature of its originating practice. While indigenous knowledge is rooted in a specific location, bushcraft seeks to extrapolate from that embedded location for more universal knowledge and practice. This is only successful when it is acknowledged and accounted for, that is when the embedded knowledge is used to scaffold across to another context, where, for example, the flora may be different but similar enough in its inherent qualities to enable similar techniques to be adapted and used. In these circumstances, the original indigenous knowledge source is transformed into a kind of 'travelling' generic knowledge rather than local knowledge, some aspects of which will be a useful bricolage in different locations. Such

transformations, however, require both a deep knowledge of the 'indigenous knowledge' source, a strong and inquisitive relationship with the new environment and a creative, imaginative and intuitive endeavour on the part of the practitioner. The habitual practice that represents indigenous knowledge in one location does not automatically transfer to viable practice in another. Part of this inquiry, therefore, looks at the idea that both indigenous knowledge and bushcraft are transferable.

A further complicating factor is the different terminologies used to denote and categorise similar activities in various post colonies (e.g. North America, Australia and South Africa) and in Europe and in different European states. Each place has its own preferred nomenclature and organisation. For example, what is referred to as bushcraft in one place is described as woodcraft, survival skills, primitive technology, wilderness living skills, earth skills or ancestral skills, in others. This nomenclature can provide clues to the philosophical approach in which a practitioner operates, or its origins. While this thesis sets out to clarify these interrelations, and to make distinctions between them as clearly as possible, its scope is necessarily restricted. Accordingly, I have selected a specific repertoire of case studies, a representative range of interviewees and a limited assemblage of reflective material.

A central argument is that bushcraft is both a transformation of indigenous knowledge, through an exchange of practices between different peoples, and a transformative educational experience, for those who teach and learn its principles and practices.

Primarily, it is the dual ideals of 'self-reliance' and 'nature connection', understood by practitioners as characteristic of 'traditional', 'indigenous' knowledge, that has been adopted as congruent with the central aims of bushcraft. Western bushcraft practitioners tend to advocate self-reliance outside urban environments as a key aspect of their practice. In this way, particular skilled-practices and perceptions of 'indigenous' knowledge are selected and incorporated into the very heart of bushcraft's modern conceptualisation and identity, alongside other folkways and ancient or pre-industrial techniques, in a rather ad-hoc and fragmented fashion, creating a knowledge domain, suggestive of a bricolage (Lévi-Strauss 1962) and hybridity (McLeod 2000).

1.4.3 Alienation and the connection with nature

According to Marx's account of human alienation (estrangement), presented in the 1844 *Economic and Philosophical Manuscripts*, it is through the objectification, appropriation and commodification of 'labour' under the conditions of capitalist production that the individual is progressively alienated from his or her 'species-being' (Marx 1992). Marx refers to 'Gattungswesen' in his manuscripts, which is generally translated as 'species-being' or 'species-essence'. The same forces of production, Marx suggested, also estranged man from his/her inorganic body, that is, the external natural world:

> Nature is man's *inorganic* body – nature, that is, insofar as it is not itself human body. Man *lives* on nature – means that nature is his body, with which he must remain in continuous interchange if he is not to die. That man's physical and spiritual life is linked to nature means simply that nature is linked to itself, for man is a part of nature. (Marx cited in Elster 1986, p. 41)

Thus Marx's term 'alienation' is commonly used to refer to the degradations of the contemporary human condition, such as 'the growth in superficiality and impersonality in interpersonal relations, the compartmentalization of our lives, the stunting of personal development…' and the 'absence of a sense of meaningfulness of life' (Schacht 1971, p. iix). Following Henryk Skolimowski (1981), who said of industrial capitalism that it produced empiricist, analytical, utilitarian and mechanistic ways of thinking, Morris (1996, p. 53) adds that capitalism 'separates knowledge from values, makes a cult of instrumental reason, and views nature as a kind of "factory" or machine to be controlled, manipulated and exploited'. Highlighting aspects of Skolimowski's argument further, however, Morris notes 'the intrinsic relationship between such mechanistic thought and the present ecological crisis' (1996, p. 53).

These ideas are reflected in Green social theory. For example, Dickens (1996) links the cause of the environmental crisis with capitalist production and, crucially, identifies alienation from nature as a central feature of modern society. Dickens, therefore, connects the division of labour and fragmentation of knowledge with the subsequent mistreatment of nature. 'Environmental crisis', he writes, is not only about environmental degradations, 'it is as much a crisis of understanding and resulting in human alienation' (1996, p. 29). In much of

Marx's writings, the industrial process was key to understanding alienation: industrial labour removed people from the things they produced. Thus, in the production process nature becomes simply a series of inputs, unrecognised as valuable in itself – a means, rather than an end (1996, p. 9). By linking 'labour' directly with 'nature', Marx (1992) explicitly sought to re-join the social and the natural worlds, providing what would now be considered a social-ecological perspective (Burkett 2014; Foster 2000). He emphasises the 'interactional aspect on human labour as a social activity, mediating between consciousness and nature' (Morris 1996, p. 87), suggesting that it is man's activity or 'labour', in close association with nature, that allows him to develop as a person – his consciousness; by interacting, changing and assimilating nature, humans begin to transform themselves (Dickens 1996, p. 57).

In contrast to the stance on human/nature alienation is the discourse of human-nature relationality and 'nature connection'. Some contemporary philosophical approaches have sought to provide a counter discourse to that of alienation. As Berkes (2008, p. 2) notes, a personal and spiritual aspect of ecology, absent from the mechanistic science of ecology, has been variously expressed in approaches such as deep ecology (Naess 1989; Devall and Sessions 1985), 'Earth Religion' (Forman 1990), in place-based outdoor adventure education (Wattchow and Brown 2011) exemplified in the Scandinavian concept of 'Friluftsliv' (Henderson and Vikander 2007) and 'New Age' spiritualities (Taylor 2001a; Taylor 2001b). Furthermore a personal and spiritual dimension in ecology is identified in Aldo Leopold's land ethics (1949), Lovelocks' concept of Gaia (1979), in notions of 'sense of place' and bioregionalism (Sale 1985), topophilia or love of place (Watson 1976) and in biophilia or love of living things (Kellert 1997; Kellert and Wilson 1993). Both Berkes (2008) and Taylor (Taylor 2001a; Taylor 2001b) emphasise Eastern religions and Native American worldviews as providing insights for those seeking relationality with the natural world, and many of the aforementioned approaches make reference of indigenous ways, knowledge and wisdom in relationship to the natural world. Marx referred to so-called earlier forms of society, in which a direct, unmediated relationship with nature was possible. He believed that these characterised the way 'earlier societies' produced the things they needed.

Brian Morris comments that, like Hegel and Freud, Marx was 'constantly trying to unify two opposing tendencies, advocating an approach that was both materialist and dialectical, deterministic and subjective, scientific and humanistic' (1996, p. 86). Morris (1996) points to a third tradition which neither appeals to a purely 'spiritual vision of nature', nor is dominated by mechanistic philosophy. He suggests that the social and intellectual tradition of humanistic anarchism provides 'a living tradition, a tradition that offers both a critique of all forms of domination and a political programme that links it in an authentic fashion to other social movements like feminism and ecology' (1996, p. 91), arguing that 'Hegel and Marx anticipated…the main premises of the ecological movement that emerged a century later' (1996, p. 88). Morris considers in more detail the false choice between 'either mechanism or spiritualism, either mammon (industrial capitalism) or God (religion)' (2012, p. 1) in his foundational work *Pioneers of Ecological Humanism*.

1.4.4 Phenomenological perspectives

In *The Spell of the Sensuous*, David Abram seeks to account for the disconnection of urbanised people from the natural world. He considers first the work of Husserl and then that of Merleau-Ponty (1996, p. 31–92). Commenting on anthropologist Levy-Bruhl's formulation of 'participation', Abram points out that:

> For Levy-Bruhl participation was thus a perceived relation between diverse phenomena; Merleau-Ponty's work, however, suggests that participation is a defining attribute of perception itself. By asserting that perception, phenomenologically considered, is inherently participatory, we mean that perception always involves, at its most intimate level, the experience of an active interplay, or coupling, between the perceiving body and that which it perceives (1996, p.57).

Thus Abram concludes, 'our primordial, pre conceptual experience, as Merleau-Ponty makes evident, is inherently synaesthetic' (1996, p. 60). Seeking a similar reconciliation of apparently opposite qualities to those attributed to Marx, Abram claims that Merleau-Ponty's final work, *The Visible and the Invisible*, suggests that 'the perceiver and the perceived are interdependent and in some sense even reversible aspects of a common animate element, or flesh, that is at once sensible and sensitive' (1996, p.67). Thus, 'I am not just a

sentient subject but also a sensible object, even an edible object, in the eyes (and nose) of the other…I find myself forced to acknowledge that any visible, tangible form that meets my gaze may also be an experiencing subject, sensitive and responsive to the beings around it, and to me' (Abram, 1996, p. 67). Abram thus concludes that Merleau-Ponty's concept of flesh, and of the reciprocity that it implies, 'bring his work into startling consonance with the world views of many indigenous, oral cultures' (1996, p.69).

An example of how reciprocal relations between nature and people are central to indigenous worldviews is provided by Richard Nelson's study of the Kuyokon Indians of Alaska. Nelson shows how the Kuyokon describe a person who is moving through nature as 'never truly alone. Surroundings are aware, sensate, personified. They feel. They can be offended. They must, at every moment, be treated with the proper respect' (1983, p. 14). Ingold also takes up this theme. In *Being Alive*, Ingold writes that this is not so much 'a way of believing about the world, but a condition of being in it' (2011, p.64). Ingold explains this as 'being alive to the world', which is characterised 'by a heightened sensitivity and responsiveness, in perception and action, to an environment that is always in flux, never the same from one moment to the next.' (2011, p. 64). Being 'alive to the world', Ingold tells us, is a way of knowing the world that shares similar viewpoints as those commonly expressed by indigenous or local peoples. Thus, Ingold and Kurtilla argue that 'indigenous knowledge is inseparable from the actual practices of inhabiting the land. For it is in the relationships that are forged with the land, alongside its animal and plant life, that their knowledge is generated' (2000, p.186).

1.5 'Indigenous knowledge' and its interpretations

1.5.1 Definitions of 'indigenous knowledge'

The concept of 'indigenous knowledge' and its semantic cognates such as 'traditional ecological knowledge' and 'local knowledge' are problematic. Constructed to contrast with the dominance of Western scientific knowledge (Gordon and Krech 2012; Ellen and Harris 2000; Ingold and Kurttila 2000; Agrawal 1995), the recognition of 'indigenous knowledge' arose initially from the colonial gaze that created a hierarchical, politicised and often violent binary between the 'advanced' colonisers and the 'primitive' colonised. In this way

indigenous knowledge was first conceived through a pejorative lens and arranged in relation to an assumed Eurocentric superiority (Battiste and Henderson 2000). As a category of knowledge, it lay at the heart of the colonial project, since the quest for precision and certainty is a typical Eurocentric strategy, so that 'it is a strategy explicit with the appropriating narcissism of Eurocentric thought' and 'the strategy of a language system that is not attached to an ecology or its intelligible essences' (Semali and Kincheloe 2002). The term 'indigenous', then, as a category of knowledge carries the full legacy of Eurocentric colonial arrogance. Ellen (Ellen 2004) tells us that while denigrating and repudiating indigenous knowledge and its holders, European colonists of the eighteenth and nineteenth centuries nevertheless actively drew upon indigenous knowledge and incorporated 'useful' aspects into their own knowledge systems whilst repudiating anything they did not make use of as inferior:

> What we now recognize as scientific knowledge of the natural world, was…constituted during the eighteenth and nineteenth centuries in a way which absorbed such pre-existing local folk knowledge as was absorbable and, ultimately, confined what was not to oblivion (Ellen and Harris 2000, p.7).

Thus, the epistemic origins of such knowledge are difficult to delineate, which raises the question of whether there is a category of indigenous knowledge that can be clearly separated from other kinds of knowledge (Ellen and Harris 2000, p.3).

In an attempt to seek a less ideologically burdened term to describe the kind of knowledge held by indigenous people, Western scholars have commonly used terms such as 'local', 'traditional', 'ecological', 'environment' or 'folk' interchangeably to describe the type of knowledge that might be considered 'informal' or 'other' than Western scientific knowledge. However, various scholars have critiqued the use of terms such as 'traditional', as carrying the implication of stasis, and thus not recognising the fluidity of tradition (McGregor 2008). The term 'local', being less politically laden than 'indigenous', avoids the problem of fossilising indigenous knowledge but may become too vague in some instances (Berkes 2008, p.9). In Ingold´s formulation knowledge cannot be separated from the lived and, therefore, situated

experience, which he refers to as being 'local' knowledge. He describes 'traditional knowledge' as being embedded in local landscape: 'in the very activities of *inhabiting* the land, that both bringing places into being, and constitute persons as of those places, as local' (Ingold and Kurttila 2000, p. 185 original emphasis). However, Suman Seth argues that 'local' knowledge 'cannot be simplistically equated with indigenous knowledge' (2009, p.378), since as Kapil Raj notes, localities 'constantly reinvent themselves through grounding (that is, appropriating and reconfiguring) objects, skills, ideas, and practices that circulate both within narrow regional or transcontinental - and indeed global - spaces' (cited in Seth 2009, p.378). Thus, in the local context, '(techno-)scientific knowledge and its ways of ordering the world may be both implicated and imbricated in the very indigenous epistemologies to which it is commonly juxtaposed' (Bonneuil, cited in Seth 2009, p.378).

On the other hand, Ingold, following David Turnbull, who aimed to deconstruct the epistemic differences between indigenous and scientific knowledge, illustrates that all knowledge is produced within a 'field of practice' (Turnbull 1989, p.61), which is reflected by 'particular people in particular places' and thus 'that which we call science – must be inherently local' (Ingold 2000, p.228). Ellen (2004, p. 442) similarly interrogates Western biological science as a local cultural practice and tradition that escapes its local roots through processes of lexicalisation, textualisation, formalisation and abstraction. The problem remains, therefore, that whatever terms are used, in the end they are insufficient and inherited from a colonial legacy that viewed everything which was not Western 'science' as 'other' and inferior; indeed, to use the term indigenous knowledge, is to be at once reminded of colonialism. The terms 'ecological' or 'environmental' equally carry the Eurocentric burden that attempts to reconfigure indigenous knowledge into its own paradigm and are thus in danger of promoting cognitive imperialism (McGregor 2008; Battiste and Henderson 2000) – that is, they seek to separate out the biophysical ecological aspects of indigenous knowledge systems from their spiritual and heuristic ways of knowing and being, to suit the aims and needs of the Western scientific paradigm.

Contemporary scholars, such as Fikret Berkes, however, have recognised the need to decolonise indigenous knowledge and to adequately represent the

lived experience of people inheriting and using that knowledge as a way of life. The idea of 'traditional ecological knowledge' (TEK) has arisen and gained popularity in conjunction with the now widespread literature concerning the ways indigenous knowledge might benefit Western scientific research in the areas of climate change, sustainable development, resource use and environmental management (McGregor 2008). In his widely accepted definition, Berkes considers TEK as:

> …a cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment. (Berkes 2008, p.7).

Thus, 'it is a way of knowing; it is dynamic, building on experience and adapting to changes. It is an attribute of societies with historical continuity in resource use on a particular land' (Berkes 2008, p.7). Accordingly, non-indigenous groups may also hold traditional ecological knowledge, in the sense of multi-generational, culturally-transmitted knowledge and ways of doing things: Fikret Berkes provides the examples of cod fishing in Newfoundland, ranching in Colorado and the use of Swiss Alpine commons (Berkes 2008, p.7).

More recently, indigenous scholars have begun writing back to the academy to define their own knowledge. For example, Berkes, following Emery (Environmental Assessment Workshop, 1995, cited in Emery 1997), summarises Inuit meanings of indigenous knowledge as 'practical common sense; teachings and experience passed through generations; knowing the country; being rooted in spiritual health; a way of life; an authority system of rules for resource use; respect; obligation to share; wisdom in using knowledge; using heart and head together' (Berkes 2008, p.4; see also Battiste and Henderson 2000, p.43). Indigenous scholars Marie Battiste and James (Sa'ke'j) Youngblood Henderson also point out that 'what is traditional about traditional knowledge is not its antiquity *but the way it is acquired and used*' (2000, p.46, emphasis added). The significance among descriptors of indigenous knowledge as a 'way of life' – as a defining feature of indigenous knowledge – is that it is not separated from being. Rather, epistemology and ontology are joined: 'In the Aboriginal view, TEK is not restricted to a 'body of knowledge', it is expressed as a 'way of life';

it is conceived as being something that you *do*.' (McGregor 2004, p.79, original emphasis). Battiste and Henderson also emphasise that 'in contrast to the Eurocentric view, indigenous peoples do not view humanity as separate from the natural world; they do not have to face the Eurocentric terror of separation from nature' (2000, p.24)[6].

Berkes highlights that 'knowledge of the land' is a more meaningful concept for indigenous peoples than that of 'ecological knowledge' (2008, p.5). Indeed, according to Gleb Raygorodetsky indigenous knowledge is regarded as inseparable from the land (in Gwin'ich Elders 1997, p.14). However, 'Land' from the Aboriginal perspective is more than the physical ecology; its meaning encompasses the biophysical environment together with the spiritual environment, which are intimately entwined, so that 'Spiritual and ethical values have been woven into this knowledge, creating a system that has guided the people and helped them survive' (Gwin'ich Elders 1997, p.14). Thus, 'the closest equivalent of the "Land", taken *without* its spiritual component, is "ecosystem"' (Gwin'ich Elders 1997, p.14, emphasis added). In this way the Western term 'traditional ecological knowledge' has been imposed upon indigenous peoples to describe their knowledge of the land and, at the same time, it implies that bio-ecological knowledge of indigenous peoples can be compartmentalised and somehow separated out from their spiritual knowledge, producing a type of secular knowledge of the land that indigenous people themselves do not recognise (McGregor 2008). This infers a Western, not indigenous, view of the natural world, one that again seeks to usefully incorporate and absorb what it considers 'scientific' about indigenous knowledge into its own practices, and as Ellen (2004) suggested of the Western scientific process – confines the rest to oblivion through its simultaneous movement of appropriation and repudiation. Thus the semantic difficulty inherent in the term TEK brings with it a danger of recreating historical colonial attitudes (McGregor 2008; Battiste and Henderson 2000). Indeed, as Adams

[6] For many indigenous people, the sense of separation arose only when colonization disenfranchised them from their traditional land rights and lives and when Residential Schools forcibly separated children from their families, cultures, and land. Reparations are still being made for this violent abuse: see, for example, *Honouring the Truth, Reconciling for the Future* Truth and Reconciliation Commission of Canada, 2015.

(2003, p.25) describes, 'the critical branch of science for colonial development was ecology, the "science of Empire"'. McGregor (2008, p. 145–146) explains:

> From an Aboriginal viewpoint, TEK is conceptualized as both more than and different from Western definitions. Native understandings of TEK tend to focus on relationships between knowledge, people, and all of Creation (the "natural" world as well as the spiritual). TEK is viewed as the process of participating (a verb) fully and responsibly in such relationships, rather than specifically as the knowledge gained from such experiences. For Aboriginal people, TEK is not just about understanding relationships, it *is* the relationship with Creation. TEK is something one *does*… This means that, at its most fundamental level, one cannot ever really "acquire" or "learn" TEK without having undergone the experiences originally involved in doing so.

It is only through participation and activity in direct relation with land that indigenous land-based knowledge can be made, re-made and renewed. Thus, it can be said that indigenous 'knowing' is knowledge as a process rather than knowledge as content (see Berkes 2008, p.8); 'expressed as "way of life"; rather than being just the knowledge of how to live, it is the actual living of that life' (McGregor 2004, p. 78). An example of this is provided by Battiste and Henderson: 'when an indigenous elder says "I know" it is a temporary reference point…he or she must respectfully live it and know how to renew it' (2000, p.41), thus emphasising indigenous knowledge/TEK as protean.

1.5.2 Land-based knowledge

Pearce, Write, Notaina, Kudlak, Smit, Ford, and Furgal, (2011, p.272) use the term 'land skills' to refer to both environmental knowledge and other kinds of related techniques. They use the example of 'how to set a fish net under the ice in the fall' as representing one item in their research that incorporates both the practical knowledge of where to set the net and why, and the hands-on skills necessary to set the fish net underneath the ice', thus referring to both wisdom and technical know-how. In addition 'skill' adheres to McGregor's (2004) notion of indigenous knowledge as something that you *do*; it is through active engagement with the land that knowledge is made, and skill denotes both the technical, active and interactive component of knowledge attached to land, combined with the 'wisdom' that makes it skilful in its application. Furthermore, 'wisdom' may also be guided by spiritually informed

understanding contained within decisions about where and why to apply a technique.

In this enquiry I use the terms ‘land skills’ or ‘land-based skill’ (Ford, Smit, Wandel & MacDonald 2006, p.131) to denote this kind of skilled, active and engaged knowledge with the natural world; to refer to both the environmental knowledge required for landscape literacy and the skill required for practices, processes and interactions that are necessary in learning to successfully apply practices such as those typified by hunting, trapping and fishing. This type of land-based, skilled knowledge can only be accessed, made or renewed through activity in direct (unmediated) relation with ‘raw nature’. It may or may not have a cosmological or spiritual aspect, but what it necessarily entails is a relationship with the landscape that is direct, unmediated, relational, sensual, knowledgeable and skilled in order to perform a skill that is directed at technique rather than technology as in Ingold’s formulation (Ingold 2000, pp.366–369) for self-sufficiency in the landscape; it is active and interactive; it is, as Turner says, in summing up Aldo Leopold’s (1925) vision of human-nature relations, ‘a working-knowledge of nature [that] would reconnect people and the land’ (Turner 2002, p. 462).

1.5.3 On skill

To extend the concept of indigenous land-based knowledge further, in a paper that discusses the Saami relationship with the environment, Ingold and Kurttila (2000) emphasise that, in the case of knowledge transmission, the relationship with the natural world is not only developed and transmitted through cultural practices and traditions but, crucially, that transmission requires skilled land-based practice. This involves a situated, direct and applied experience of living with nature and from nature in order to ‘know’ nature. In their formulation of ‘traditional knowledge’, they posit that intergenerational transmission of knowledge is inseparable from lived, situated experience. Thus, knowledge and skill are not inherited, neatly packaged and bounded, simply on the merit of descent, but are developed through active, functional and local experience. Necessarily, this produces individual variation, which transforms traditional knowledge alongside the lived experience (Ingold and Kurttila 2000).

Responsiveness to ever-changing local patterns, from macro seasonal changes to moment-by-moment micro fluctuations in the environment, and interpretation of these external fluctuations, is crucial to 'traditional' skill, knowledge and practice. Echoing the educational theories of Paulo Freire (1970), Ingold and Kurttila assert that, rather than seeing people as containers to be filled with cultural knowledge, learning occurs through the continual process of engagement with the natural environment – that people grow into their knowledge, thereby linking epistemology with ontology. So, land-based knowledge is provisional since, if the context becomes unfamiliar, even the most experienced practitioner must learn something new; an acceptance of uncertainty is a defining characteristic of expertise:

> All of a sudden, the most well-known places can "flip over" and turn strange and hostile, leaving the traveller lost and bewildered. No-one is ever skilled or knowledgeable enough to be able to move in the forest with total confidence: so far as the weather is concerned, one has always to contend with a degree of uncertainty, and it is the recognition of this uncertainty that distinguishes the truly experienced woodsman. Above all, moving in an environment means 'tuning' ones own movement in response to the movements in ones surroundings – other animals, the wind and so on (Ingold and Kurttila 2000).

Or, as Gibson (1979) indicates, combining good craftsmanship with adaptability, being open, reflexive and responsive, and drawing on experience and accumulated knowledge of reading landscape for 'affordances' allows 'true' woodsman skill to emerge. Similarly, Gregory Bateson's example of the woodsman notching a tree with his axe demonstrates that a whole set of interrelated dynamic relations are invoked in the man-axe-tree system, in order to fell the tree (1972, p.433).

Because skills interrelate with a whole system (Ingold and Kurttila 2000; Ingold 1996), Ingold calls for an 'ecological approach' to the study of skill that centres the practitioner in a complex web of ecological activity, since 'What the practitioner does *to* things, is grounded in an active perceptual engagement *with* them' (Ingold 1996, p.178, original emphasis) which, following craftsman David Pye 'underwrites the qualities of care, judgment and dexterity that are the essence of skilled workmanship' (Pye 1968, p.22). Necessarily, therefore, skills cannot be 'transmitted' through codified programmes of education and learning, but are learned through imitation and improvisation in the context of practice,

whereby individuals learn their own 'ways of doing' (Ingold and Kurttila 2000; Lave and Wenger 1991). No one person's skill can, therefore, be identical to another, neither will the product of an individual's own skill be fully or identically replicated each time the skill is 'performed' but will contain core attributes that have been 'skilfully' adjusted and adapted to respond to the circumstances of execution (Richards 1993). The particular contexts of development, where learners can fine-tune their capacities for action and perception require what ecological psychologist, James Gibson, called an 'education of attention' (1979, p.254).

1.5.4 Gibson's ecological perception

Ingold helpfully links Marx's utilitarian view of natural materials to Gibson's theories of perception, suggesting that Marx's idea of the instrumental or use-value of the earth is substituted in Gibson by the notion of affordance in a landscape (Ingold 2010b, p.S123). The Gibsonian concept of 'affordance' is, therefore, fundamental to an agent's ongoing engagement with constituents of their environment.

This concept of affordance is particularly germane to bushcraft skills, since an affordance creates a direct link between a knowing, perceiving agent and their action in an environment. Perceiving an environment, one at the same time perceives what possibilities or opportunities it might afford. Thus, the concept of affordance is a relational one. Further, an affordance belongs neither wholly to the organism nor to the environment, but rather, knowledgeability and meaning are constituted in relational activity between both (Gibson 1979). In this way, the concept of an affordance relies upon prior knowledge and experience, and the capabilities of an actor/agent; what a particular object or environment might afford one person (or organism), it may not afford another. The deciding factor is, therefore, based upon the actors' skills, made up of experience and knowledge, of how to access the perceived affordance. This makes the concept dependent not only on the physical capabilities of an actor, but also on the actor's goals, plans, values, beliefs and past experiences (Norman 1988).

1.5.5 The bushcraft perspective of 'indigenous knowledge'

Bushcraft practitioners seek particular aspects of indigenous knowledge that they consider necessary for providing fundamental life supporting techniques for living from the land and travelling within it. However, practitioners also seek to experience and/or discover what they might consider to be a more 'indigenous' way of interacting with the land. Thus, bushcraft notions of indigenous knowledge are open to the danger of crude, reductionist and homogenising interpretations. Accordingly, I stress that, within bushcraft practice, it is the reproduction or reconfiguring of land-based technologies or techniques such as those that produce fire, shelter, food and water, that is primarily interpreted as, or attributed to, indigenous knowledge. Engagement with the cosmological aspects of indigenous knowledge systems may range from complete detachment, absence and ignorance through to a strongly imagined, shifting into illusionary or mystified acceptance, only rarely resembling any real cohesive understanding of any particular indigenous world view. So, a primary interest in reproducing skills that rely on technique in relation to landscape, rather than the application of Western technology, is the focus of bushcraft. However, it should be noted that practitioners sometimes attach to their practice new cosmological and spiritual aspects that might be broadly understood as identification with nature and a return to a more emotional or sacred connection with the land (Milton 2002), ideologically expressed within philosophies of 'green primitivism' (Ellen 1986), 'earth-based spiritualities' or 'green religions' (Taylor 2010; Taylor 2001a), such as 'deep ecology' (Devall and Sessions 1985), for example.

Bushcraft, then, might be associated with a more static idea of indigenous knowledge, one that views particular techniques as though they are frozen in time. Moreover, bushcraft knowledge sources most often include codified and static media such as texts, ethnographies, artefacts and museums, less usually learning directly from living cultures. These abstracted and codified snapshots of indigenous knowledge are then transformed in an attempt to reapply them to the living landscape, in new circumstances and novel ecologies, for which they must be revitalised, enlivened, adapted and re-invented, becoming once again fluid not static. Thus, bushcraft seeks to incorporate selected techniques and skills from indigenous knowledge, as far as they can be usefully understood and

adapted within a Western framework, in order to transfer and re-apply them as a suite of expedient skills and knowledge for adventurous, recreational, remedial, educational or vocational practices.

1.6 The etymology of the term 'bushcraft'

The etymology of the term bushcraft provides a direct insight into its colonial origins. The prefix 'bush' refers to ideas of place as wild, wilderness and uncivilised – in contrast to the urban and domestic, while the suffix 'craft' refers to the type of embodied knowledge and skill developed with natural materials afforded by 'wild' landscapes, which is required to live and travel in such wilderness. The term bushcraft, therefore, explicitly conjoins perceptions of nature and wildness to concepts of craft, skill, knowledge and know-how.

The term 'bush' and cognate notions have a particular association with the colonies of the 'neo-Europes' (Crosby 1986, p.2), for example Australia, New Zealand, Canada, Alaska and South Africa. In *Australian English*, Ramson (1966) suggests that it was during the settlement of North America that the word 'bush' first began to appear in the English language, applied to the uncleared or untilled districts in the British colonies, even though not wooded; and hence to the country as opposed to the towns (Ramson 1966, p.135). However, the Oxford English Dictionary (OED) gives its earliest use as an adjectival noun (OED Online, 2015), in the compound 'bush-cat', used in 1780 to describe the South African serval; its first recorded use to mean woodland or country that is still in a state of nature is recorded as in 1826, in reference to the interior of New South Wales, while two years later, in 1828, it appeared in reference to the uncultivated parts of Virginia, in the USA. Etymologically, OED traces its usage from the late Latin for wood, through Old Norse, to Middle English, with cognate terms in the German and Dutch languages.

Other compounds soon followed: 'bush-work' in 1830, in a novel about a Canadian settler; bush-track in 1832, from New South Wales; and bush-fire in 1847, again in an Australian context. By 1871, OED records 'bushcraft' appearing in Charles Money's *Knocking About in New Zealand*, quoting 'He gave me my first lessons in bushcraft, such as a knowledge of edible roots, modes of crossing rivers, snaring birds' as its source. Furthermore, in 1897, OED cites The Westminster Gazette reporting on Leichardt's fatal expedition in

New South Wales, stating that he ‘perished... because he lacked the rudiments of bushcraft. Its present definition is ‘skill in matters pertaining to life in the bush’.

Most recently, Ray Mears adopted the term ‘bushcraft’ in Britain with the aim of differentiating the more long-term aims of ‘wilderness living’ from pure military-style tactical escape and evasion 'survival'. However, the mass-popularisation of the term ‘bushcraft’ came approximately around the year 2000 as a consequence of Ray Mears´ rising popularity and advances in global mass media and digital and print productions. Whilst previously using the term ‘survival’ in his publications and television productions through the 1990s, in 2002 he published his best-selling book, *Bushcraft: An Inspirational Guide to Surviving the Wilderness*, followed by his television production *Ray Mears' Bushcraft* in 2004 (2004-2005), which cemented the term ‘bushcraft’ globally and led to it becoming somewhat synonymous with Ray Mears.

1.7 Outline of thesis

This thesis – like Caesar’s Gaul - is divided into three parts. The first part sketches a conceptual genealogy of ‘bushcraft’. It examines how ‘bushcraft’ emerged as a modern concept and how notions of ‘indigenous knowledge’ informed it. The second part examines three case studies of skilled practice that are commonly enacted within ‘bushcraft’ and are significant both in practice and emblematically in relation to the category ‘indigenous knowledge’. The third part further analyses and explores the relationship between ‘bushcraft’ and ‘indigenous knowledge’ and discusses processes of transmission and of internal and external transformation.

Part 1 comprises four chapters. Chapter 2 focuses both on how bushcraft emerged as a contemporary category in Europe and the neo-Europes, and the ways in which it has manifested itself in a postmodern society. It examines the prehistory of ideas and conditions that has enabled the grassroots phenomenon of bushcraft to develop as it has today. It draws together a previously largely uncollected literature in order to first locate and expose linkages between the historical roots of bushcraft and indigenous knowledge. It does this through the lens of post-colonial theory and concepts of hybridity. This chapter explores the

genesis of bushcraft as European 'bushmanship' and 'woodcraft' that developed in conjunction with the colonial aims of the age of exploration.

Chapter 3 uses the romantic and primitivist critiques of modernity as a lens through which to examine how woodcraft and bushcraft emerged in response to modern dissatisfaction with the alienating forces of urbanisation and capitalist consumption. The practices of woodcraft and bushcraft are part of a complex web of influences that expand and contract from around the mid-nineteenth century through to the contemporary era. Movements and counter-cultural ideas that emerge from the 1850s, such as the Arts and Crafts Movement and the youth movements of the early 1900s include radical educational ideas concerning how nature-based and skill-based activities serve to develop moral values and individuals within society. The chapter examines examples of the way in which movements such as 'Woodcraft' and 'camp-craft' influenced current ideas of bushcraft practice. I explore the role of colonial ethnographies in transmitting and codifying indigenous knowledge, which were subsequently reformulated for militaristic purposes and transformed into 'survival manuals' for pilots and military personnel. I examine how contemporary practice and its cognate disciplines first surfaced during the counter-cultural movement of the 1960s and developed along various lines over the 50 years which followed to become what is now understood to be contemporary bushcraft.

Chapter 4 presents an ethnographic analysis of contemporary bushcraft practice, using concepts of 'serious leisure' to explain the construction and features of the contemporary 'social world' of bushcraft. I draw on fieldwork, interviews and a questionnaire survey to present my findings. Drawing on concepts from educational and anthropological literature, such as those of skilled-practice, I analyse the type of knowledge bushcraft encompasses and its relationship to the academy and to educational practice.

Part 2 consists of three chapters, each of which describes a case study of a particular skill constellation. The cases have been selected for their iconic status within bushcraft practice and as examples of the relationship between bushcraft practice and indigenous knowledge. I explore the meaningfulness of skilled-practices in relation to core assertions of self-reliance and connection to nature. Chapter 5 examines the 'Saami Kuksa', which enables the investigation of

embodied knowledge, craft and skill acquisition and appropriation of indigenous knowledge. I suggest that, in learning to carve a Kuksa, a type of authenticity located within skilled-practice itself is typically both sought and felt. Chapter 6 examines the practice of fire-making by reciprocating motion. I suggest that, in learning to create friction fire, practitioners undergo a significant internal transformation (both physically and psychologically) that mirrors an external transformation of the natural materials, and thus in relation to the broader natural environment. Learning the skill of making fire by friction is experienced by practitioners as a deeply 'primordial' and transformative moment.

Chapter 7 describes the activity of trapping and trap-making, as well as tracking, using the case of the 'Figure 4 deadfall trap'. This chapter explores the process of transformation of a skill itself, through changes in its context and therefore purpose and function, as well as the deep understanding and imaginative, creative processes necessary for predicting and influencing the behaviour of animals. Its focus is upon the landscape literacy, tracking skills, nature observation and awareness, camouflage and craft skills necessary to successfully trap. At the same time, the chapter discusses a skill set in which form is removed from function, due to legal restrictions imposed on 'primitive' trapping. Together these three chapters show the complex linkages and relationships between bushcraft practice and indigenous knowledge and land-based skill as a way of knowing and being.

Part 3 analyses and discusses the relationship between bushcraft and indigenous knowledge more explicitly. It examines the role of indigenous knowledge in bushcraft practice, in its presentation through the media and in the lives of its individual practitioners. Chapter 8 focuses on the interactions that take place between practitioners and the natural world, before moving on to scrutinise the ways in which bushcraft activities relate to, and transform, indigenous knowledge. It further discusses the transmissions and transformation that occur through the practice of bushcraft and the role that indigenous knowledge occupies within these processes. My conclusions draw out the main themes that emerge from this study, in relation to each other, to consider how they have answered the research questions and to identify areas where future research may be necessary.

Chapter 2 : The Deep History of the Concept of Bushcraft

2.1 Introduction

2.1.1 Writing bushcraft's deep history

Because no historical account of the bushcraft movement exists at present, this chapter provides a brief description and interpretation of the conditions that led to its emergence. This is essential for a discussion of its conceptual relationship with indigenous knowledge in the modern world. The chapter explores two interrelated questions: what historical conditions and transformations enabled the construction of 'bushcraft' as a separate discourse, body of knowledge and set of practices during the second half of the nineteenth century; and how was this body of knowledge and practice linked to encounters with 'indigenous peoples'?

In tracing a prehistory of the modern concept of bushcraft, I provide an account of the systems of transformation that have contributed to bushcraft as a separate category of knowledge and practice from the mid-nineteenth century. In so doing, I am influenced broadly by a Foucauldian 'archaeology of knowledge' approach, that is, an analysis of the various transformations that lead to the 'discursive formation' of bushcraft through its historically 'heterogeneous and dispersed elements' (Foucault 1972, p.180). By piecing together historical convergences and transformations I aim to uncover the processes through which bushcraft emerged as a distinct category of knowledge and eventually formed a discipline.

Although the term 'bushcraft' is not listed by the OED in its modern sense until 1871, and is not used extensively in that sense until 1909 (Pocock 1909). Its 'deep history' (Shryrock and Smail 2011) lies in early European trading and exploration. We can identify three distinct but fragmented trajectories rooted in British colonialism: the refinement of irregular warfare tactics; the growth of trade, particularly the North American fur-trade; and the development of 'bush

skills' for remote exploration. This chapter explores all three through the historical literatures produced by, and about, explorers and frontiersmen.

Modern bushcraft is rooted in the practical necessities of Western commercial and martial endeavours, which were fuelled by European expansionist aims during the 'age of discovery'. During the Enlightenment, inland exploration across the continents in the search for new resources followed the first maritme explorations where skills were required to navigate dangerous oceans and survive long voyages (Pratt 2008). A change of focus, from living aboard sea vessels during long exploratory voyages to exploring and settling new lands, required Europeans to develop land-based skills for self-sufficiency. The development of land-based skill therefore became necessary in order for Europeans to traverse and inhabit remote 'wild' and unknown areas with 'alien'ecologies. In addition, Europeans needed to achieve this with equipment that was necessarily reduced to the barest essentials (McLaren 1996). In his historical examination of competence of the early Australian explorers, McLaren refers to such land-based skill as 'bushmanship' or 'bush-skill' (1996, p.31).

The adventures of early land-based explorers, who were 'discovering' the new world, were synonymous both with the scientific aims of contemporary naturalists and botanists of the epoch and with commercial and political interests (Pratt 2008). Further justification and focus for colonial expeditions were provided by the eighteenth century project to classify the whole natural world into one 'rational' system (Pratt 2008; Thomas 1983). However, these imperialist endeavours also produced conflict, both with the inhabitants of 'newly discovered' lands, or through competition with other Europeans over territory and resources. Violent clashes meant that 'bushcraft', the ability to move through or live with minimal resources in uncivilised areas, became valuable knowledge in enabling European land-based military activity, especially in the adoption of guerrilla warfare tactics from indigenous allies. Thus, 'bushcraft' as a practice first emerges in response to a need to move into and through different ecologies with restricted technology. High levels of technique had to be developed to buttress low-level technology. In this way explorers and pioneers became associated with the conditions of the frontier (Morris 1996, p.31).

As postcolonial theory indicates, much of the process of absorbing indigenous knowledge into Western bushcraft passed unrecorded, since the endowment of Eurocentric sophistication from centre to periphery was assumed to be payment enough for the colonial appropriation of material and cultural wealth from non-European satellites (Battiste and Henderson 2000, p.22). Naturalists and explorers drew freely on indigenous knowledge as a source of useful information about the natural world (Clarke 2013; Webb 2012; Ellen 2004; Ellen and Harris 2000; Turnbull 2000). As such, the process of the development of bushmanship might be seen to parallel Webb's (2012) description of the development of Western biomedical knowledge, in which patterns of cross-cultural European borrowing of the medical treatments of indigenous populations was, in the nineteenth century, acknowledged as a distinct body of curing knowledge – 'Indian medicine'[7]. However, this knowledge was eventually assimilated into official European pharmacopoeias (Webb 2012, p.59), so that specifically 'Indian medicine' was displaced by the notion of a universal type of 'knowledge of the land' (Webb 2012, p.59) which, it was assumed, would eventually become apparent to anyone who inhabited it and for which indigenous people deserved no especial credit. Thus, 'once ethnobiological knowledge had been drawn within the orbit of modern science and its origins forgotten, it became difficult to know where to place the boundary between the two' (Ellen 2004).

This chapter argues similarly that explorers, pioneers and frontiersmen drew opportunistically on indigenous knowledge for techniques for living and surviving from the land, particularly in terms of the requirements for traversing the land rather than settling and farming it (Clarke 2013; Reynolds 1990). This knowledge was not the result of European land skills developed in an isolated wilderness, but was first learned from local indigenous peoples who were part of particular local ecologies (Clarke 2013; Gordon and Krech 2012; Reynolds 1990). Such knowledge increased the ability of colonisers to negotiate challenging and unfamiliar terrain, developing their skills in sustaining life,

[7] As evidenced by publications such as *The Indian Doctors Dispensary* (Smith c1812), *The Indian Guide to Health* (Selman c.1836) and *The North American Indian Doctor* or *Nature's Method of Curing and Preventing Disease According to Indians* (Foster 1838). These demonstrate both the ready acceptance of 'Indian medicine' as efficacious in nineteenth century America, and the willingness to credit the source of knowledge as 'Indian' (Webb 2012).

enabling them to adapt to changing environments and thus to travel further (Clarke 2013). In essence, then, bushcraft arises from colonial land-based travel, required for combat, trade and exploration, to generate a new category of pragmatic knowledge. An advert placed on the inside cover of Roger Pocock's publication, *The Frontiersman's Pocket Book*, in 1909, advertises a school for 'colonial instruction', aptly describing this emergent, hybrid, universalised, colonial, pragmatic knowledge as 'colonial craft'. Both scientific accounts, such as explorer journals, and the imaginative literature of sentimental writers, which reflect the zeitgeist of the societies that produced explorer narratives, are required to trace the historical development of bushcraft. Both literatures afford insights into the subcultures that developed in the 'contact zones' (Pratt 2008) of frontier regions.

2.1.2 Mechanised nature and the primitive 'Other'

The conditions of early European colonialism were supported through the wider philosophical, scientific and social-economic transformations of the Enlightenment. During this period, a more mechanistic view of nature replaced the medieval cosmological worldview, and new philosophical scholarship influenced religious upheaval, economic change, political expansion and geographical exploration, producing new ideas about nature and modernity (Tarnas 1991). The dualistic philosophy of René Descartes that first separated culture from nature in accordance with his mind/body dichotomy, complemented Francis Bacon's aggressive assertion of a new masculinist science, which sought to dominate and conquer a feminine nature; 'to conquer and subdue her, to shake to "her" very foundations' (cited in Midgley 2006, p. 41). Thus, as Morris puts it, the material and intellectual forces of the Enlightenment 'wrenched a part of humankind away from any direct contact with the natural world' (Morris 1996, p.28).

Enlightenment attitudes increasingly viewed nature as predictable, intelligible and essentially mechanical, forming an instrumental approach to the natural world which supported its technological appropriation as scientific progress. This attitude confirmed the West's view of itself as superior and enlightened in relation to the ignorant baseness of the Other. Epistemic differences between Western, global, universal knowledge and local, indigenous

knowledge were further polarised by setting scientific rationalism against 'native' unreason. This conflict between opposite emotional attitudes in nature merged with a wider polarisation of 'feeling' and 'emotion' against 'reason' as rival principles (Midgley 2006; Milton 2002). This polarity represented relationships of power, conceiving European identity in dichotomous opposition with the Other, expressed through the language of binaries, such as nature/culture, mind/body, primitive/civilised, ignorant/enlightened (Derrida 1981, p.41). European expansion into the rest of the world, and the intellectual developments of the Enlightenment, converged and reinforced one another to assert a violent hierarchy between colonial Self and indigenous Other, underlying the complexities of the real-life diversity and ambiguity that attended interchange between European and indigenous cultures.

Pratt's *Imperial Eyes* (2008) traces a global systemisation of nature that, amidst the age of exploration and long-distance travel, began during the eighteenth century to replace an earlier, more intimate one, exemplified by the local floras and herbals of those such as Culpepper and Gilbert White (Cooper 2009, p.57). Noting that a totalising approach was already well established in the record keeping apparatus that documented deaths, births and marriages of Swedish civilians, she points to Linnaeus's *Systema Naturæ* – first published in 1735 – as a foundational 'grand scheme' that could be applied to plants, animal and minerals anywhere in the world (Pratt 2008, p.34). Linking Linnaeus' standardisation scheme with military organisation (such as uniforms, exercises and discipline), Pratt (2008) suggests that the 'systemization of human life, and the standardization of persons', as evidenced in the Atlantic slave trade and the plantation system, was a precursor to the Industrial Revolution and its mechanistic production systems. Pratt's (2008) proposition is that Linnaeus's *Systema Naturæ* provided the systematic thinking from which scientific and industrial development could arise, producing a culture of exploration that colonised the world to collect data for a global project of systemisation. This globalisation and systemisation thus removed the authority and experience of local peoples and relocated it in the powerful new scientific domain, which was supported by associated administrative and institutional structures. Because this global way of understanding the natural world was alien to ways of knowing in non-urban and unlettered societies, including peasant societies in Europe,

Linnaeus' *Systema Naturæ* represented a dominant urban discourse about a non-urban world, as well as representing a lettered discourse about non-lettered peasant societies (Pratt 2008, p.34).

Western scientific views of nature produced further transformations. Li's (2006) *Neo-Primitivist Turn* suggests that the discovery of evolutionary time transformed the Other's 'exotic' difference into 'primitive' or 'savage' deficit. This had less to do with exotic strangeness and more to do with a temporal measurement that provided 'an antithetical relation to modernity' (Thomas 1994, p.173). Thus, stimulated by Charles Darwin's concept of evolution, from the late-eighteenth century, the Other's 'difference' became positioned at one end of a temporal evolutionary scale that collapsed 'all of the dimensions of human variation onto a single axis' (Li 2006, p.4). This perspective 'first transformed difference into historical difference and then…transformed history into evolution (progressive evolution)' (Kuklick, cited in Li 2006, pp.4-5). In this way the invention of evolutionary time became that of evolutionary progression, which was then used to separate the European and the non-European Other (Li 2006, p.4). The Other, located at the lowest end of an evolutionary scale of progression, was now positioned as primitive and inferior. Difference became deficit and the primitive or savage occupied the un-progressed state in a continuum that positioned European 'civilisation' at the top of its temporal scale. With its ideas of progress now justified, civilisation could be turned into a project, thus legitimising the colonial, civilising mission of the West. Not only was modernity now contrasted with an unacceptable Other (Jervis 1999, p.4) but, as Latour suggests, notions of modernity, modern or modernisation, only exist in contrast with an 'archaic and stable past' (Latour 1993, p.10). Thus, ideas about the civilised superiority of the metropolitan centre became polarised with the ignorance and savageness of the primitive Other.

With nature itself becoming devoid of meaning, emotion or sanctity, the rational mechanistic philosophy of European Renaissance thinkers began the project of breaking down the parts of the natural machine so that nature could be studied, understood and ultimately mastered (Midgley 2006). Thus, the core European values associated with the Enlightenment and the emergence of modern science were those of 'discover' in order to 'conquer', so 'anti-natural science built into the idea of "omnicompetence" from the beginning and it

worked there vigorously throughout the Enlightenment' (Midgley 2006). Moreover, the politico-economic expression of the 'discover and conquer' ideology of rationalism and systemisation created the ideal intellectual support for an expanding capitalist system, facilitating in its wake the exploitation of the natural world. Science was the tool through which modern man could discover nature's workings and dominate 'her', justifying the mechanistic philosophy and its associated political ideology. Thus, the attitudes underlying colonialism, rational objective science, modernity, exploitation of nature and the primitive, were intimately linked so that, in effect, the 'Enlightenment and the control of nature were parts of the same project' (Jervis 1999, p.6).

2.2 Explorer narratives and the colonial gaze

2.2.1 Early 'survival' literature

The rise of scientific expeditionary travel produced a growing media interest in tales of survival and adventure. Pratt (2008) offers a critique of the ideology and construction of heroic adventurous travel and colonial exploration through the genre of travel writing that was produced 'by Europeans about non-European parts of the world', and which 'created the imperial order for Europeans "at home" and gave them their place in it' (Pratt 2008, p.3). By the early eighteenth century, enough 'survival literature' (Pratt 2008, p.84) of buccaneer adventure and discovery had been written and printed to constitute a distinct genre (Neill 2000, p.166). With its dramatic accounts of horrific suffering, survival literature provided purportedly true-life tales of shipwreck victims, mutinies, captivity, castaways, abandonments, 'savage tribes' and hostages held by barbarous captors. They were as popular then, at all levels of print culture, as they are today (Thompson 2011; Pratt 2008, p.84). These accounts of survival consisted of personal narratives amid adventurous disaster and misfortune, and often arose from the journals and documentation of voyages of privateers/buccaneers in particular, for example, William Dampier's highly popular *New Voyage Round the World* (1697). However, it is Daniel Defoe's *Robinson Crusoe* (1719) that best epitomises the many tales of desert island survival, whilst being one of the most published books of all time.

Forming an early basis for European fascination with the terror of being separated from civilisation for the metropolitan reader, they delivered a

fascination about how one might 'survive' alone in a hostile and alien landscape or in the face of capture by 'savages'. Often accused of low-brow sensationalism, survival literature, created a tension between the purportedly dispassionate, objective scientific reports of the world 'out there' and the embellishments of the imaginative, subjective and sentimental rhetoric of travel writing – or as Pratt puts it (2008, p.85), 'between the lettered and popular writer'. However, in the latter part of the eighteenth century, there occurred a distinct shift towards the sentimental as a powerfully evocative mode of representing the frontier (Pratt 2008, p.85). Scientific accounts moved from their earlier focus on imperialist commerce and science and gradually turned more resolutely towards sentimental tales of adventure, which stirred in its metropolitan audience a strong empathy and admiration for individual heroes, victims and heroines. In the words of Arctic explorer and ethnographer, Vilhjalmur Stefánsson (1944, p.7), in his *Arctic Manual*, 'the ambition of the explorer was no longer to be a pioneer, but rather to be a hero'.

2.2.2 The heroic explorer

The heroic quality of explorers was part of a colonial narrative and institutional discourse, emanating from establishments such as the Royal Geographical Society, which shaped the canon of British exploration. Ryan argues that, in addition to journals creating the heroic explorer, 'he is the vehicle for the production of a centralized visual discourse' (1996, p.8). Critiquing the accuracy of explorers' accounts, Ryan suggests that in his 'discovering' gaze the explorer is afforded this position to see because of institutional support, so that explorers' observations are situated within pre-existing tropes and stereotypes of the time (1996, p.8). This mythologisation of explorers as a category 'allows them to be used as a focus for imperial discourses, of vigorous manly expansion and occupation of land' (Ryan 1996, p.8), and incorporates their readers into imperial European ideology. These tropes and rhetorical strategies mean that 'careful' descriptions of 'primitive' peoples, that sometimes approximate proto-ethnography, are indivisible from socially manufactured narratives (Ryan 1996). Journals, therefore, are not dispassionate records but are personal descriptions that locate the explorers' vision at the centre of what he sees; a central voice that differentiates the explorer journal from the travel guide (Ryan 1996, p.8).

Consequently, 'the heroic explorer as created in the journal is more than just self-promotion of the individual involved; it is an essential part of the way in which journals produce their claim to truth' (Ryan 1996, p.8).

2.3 The development of Australian bushmanship

The achievements of European explorers who 'discovered' Australia's interior were utilised by fin de siècle writers to provide expression, interest and romance to what was thought to be a 'rather tame and uneventful story' (Reynolds 1990, p.6). Explorers were regarded as being engaged in 'warfare against the hostility of the wilderness' (Reynolds 1990, p.6), a battle to conquer and tame nature and to overcome her many natural challenges, using the 'tools of Empire', such as the magnetic compass, the sextant and podometer (Raj 2007, p.26). Cameron, McLaren and Cooper (1999, p.337) define bushmanship as 'the competence to interact meaningfully with newly encountered environments in the achievement of predetermined goals [of Europeans]', which they point out 'is a fact overlooked in analysis of land-based exploration'. Therefore, they suggest that 'This competence, which we prefer here to call "bushmanship", refers to the ability to live in, or move through, unfamiliar and unsettled, often inhospitable, country with facility' (Cameron, McLaren and Cooper 1999, pp.337-338).

Pointing to a lack of historical analysis of the incremental development of bushmanship, which enabled explorers to travel further and further inland, Cameron *et al* argue that sensationalist narratives of explorer incompetence have illuminated so-called 'heroic' qualities, which have then become the focus of historical interest in exploration. Consequently, the history of the development of bushmanship has been wholly overshadowed by the more sensationalist accounts of heroic survival. Accordingly, Cameron, McLaren and Cooper (1999, p.338) assert that *competence* in exploration and bushmanship has been ignored in favour of incompetence; 'the competent took few risks, anticipated and thus avoided difficult situations, and when confronted with danger had the experience to extricate themselves with minimum fuss. These were not the characteristics of a hero'. McLaren (1996) proposes that the European development of bushmanship was essential to the success of expeditionary colonial excursions, positing competent land-skill as key to fulfilling the imperial aims of land survey, collecting material and recording observations of the natural world for

the progression of science. He says, there was a ‘subordinate relationship of field science to bushcraft, whereby the expertise of field scientists in most instances trailed that of bushmen, upon who they were vitally dependent’ (McLaren 1996, p.17).

However, McLaren and Cooper (1996) describe as an ‘enduring myth’ the idea that Aboriginal knowledge was integral to the development of European bush skills during Australian continental exploration. Arguing against Reynolds’s (1990) account of the crucial role played by Aboriginals in the exploration of Australia, they contend that any ‘key part’ was restricted to Mitchell’s expeditions in the 1830s and 1840s:

> In fact, although local tribes people were frequently of value to explorers such as Sturt, Leichardt, and Eyre, supplying them with food and with valuable advice on the course of rivers, the location of water and the best routes across extensive swamps, the evidence suggests that contributions of Aboriginal expedition members were often peripheral at best. (McLaren and Cooper 1996, p.33)

Thus, McLaren and Cooper (1996, p.35) focus on ‘evidence’ of native incompetence during Watkin Tench’s early expedition of 1789, where ‘unfortunately its two Aboriginal members failed to live up to expectations, advising the leaders after only a short distance had been covered that they were unfamiliar with their surroundings’. Citing several more examples of this type, McLaren and Cooper suggest that when in unfamiliar territory ‘they [Aborigines] were often of no greater competence than the white explorers whom they were meant to be guiding’ (McLaren and Cooper 1996, p.34). Given the pejorative tone, rather than that of a self-evident statement, the implication is that Aboriginal disorientation was frequent, and negated their use in finding water, food and trails. Uncritically quoting the views of white explorers, as fully reliable authorities, McLaren and Cooper ignore the colonial processes at play. In contrast, Reynolds (1990) asserts that Aboriginal guides provided a multitude of skills and knowledge for those European travellers who cared to discern it, while for some who didn't, such as Burkes and Wills, death followed (Clarke 2013).

2.3.1 Learning bush-skills from the Aborigines

A closer examination of the historical events shows that, because it was primarily military and naval personnel who were involved, a military approach to outfitting, equipment and provisioning dominated early Australian exploration (McLaren 1996). For example, in 1788, Philips's small group of explorers carried with them all their provisions, including water, since they did not know how to obtain game or water from the land (McLaren 1996; McLaren and Cooper 1996). Their lack of bush skills and the heavy weight of their provisions meant that Philips's first foray only travelled 15 miles before being forced to turn back and his second expedition covered only thirty miles in five days.

Between 1788 and 1792 British marine officer and explorer Watkin Tench gradually built upon these first attempts and included 'natives' in his party. Tench's journal entries note with frustration the ease with which Aboriginals were able to traverse terrain where his own men struggled desperately because they were weighed down by provisions (McLaren 1996; Reynolds 1990, p.20). Tench clearly recognised this visible and personally felt contrast between Aboriginal and the expedition's ways of moving through landscape since he writes of his two guides Bolanderee and Colbee: 'In addition to using Aborigines as guides, the whites hoped to learn from them' (cited in McLaren 1996, p.36). Specifically, Tench hoped to learn '…their manner of living in the woods and the resources they rely upon in their journies [sic]. Nothing, however, of this sort has occurred …' (cited in McLaren 1996, p.36).

How such learning may have taken place, however, and why in this early instance it did not, cannot be established with certainty. Accounts offered by explorers describe a complex and often-uneasy relationship between colonists and Aboriginals, characterised by a varying and unstable degree of dependency of European explorers upon 'their' native guides. Relationships between 'Whites' and Aboriginals were generally characterised by wariness, were often unpredictable and sometimes violent in the case of either Europeans who, for example sometimes chained up Aboriginals until they led them to water (Reynolds 1990, p.14), or Aboriginal 'attacks'. Thus, in accordance with colonial dualistic thinking, 'Aborigines' behaviour is at the same time noble but untrustworthy, primitive but capable, hospitable yet unaccountably aggressive' (Slattery 2004, p.6). Ideas of evolutionary progression, the perceptual limitations

imposed on explorers by their heroic mythologisation, perhaps underpinned by an inflexible discourse of scientific rationality, may have created insuperable cultural or psychological barriers to their learning from 'primitive' peoples. However, some explorers provide details of instances where Aboriginals transmitted useful or life-saving information to them, as well as accounts of long-standing friendships between explorers and native guides, for example George Grey and Kaiber, John Mitchell and Barney, Edward Eyre and Wylie, Ludwig Leichhardt and Charley (Clarke 2013, p.69). Edward Eyre was very sympathetic to Aboriginals in general and, in particular, to those 'native guides' who accompanied his expeditions. In his journals, Eyre records copious observations of Aboriginal techniques for living from the land, noting in his 1844 journal the utility of employing native guides:

> [I]…always made a point, if possible, to be accompanied by one or more natives, and I often found great advantage from it. Attached to an exploring party they are frequently invaluable, as their perceptive powers are very great, and enable them to see and hear anything at a much greater distance than a European. In tracking stray animals, and keeping on indistinct paths, they display a degree of perseverance and skill that is really wonderful. (Eyre 1845, vol.2, p.217)

Furthermore, the journals of explorers such as Charles Sturt, Thomas Mitchell, Ludwig Leichardt, Edward Eyre and Francis Barrallier frequently make similar observations about the skills of Aboriginals in tracking animals and people, finding water, hunting game, foraging food and providing fire and shelter. These were skills which the explorers did not possess initially but eventually learned. Through close examination of explorer journals, Reynolds (1990) and Clarke (2013) provide many examples of ways in which Aboriginal ecological knowledge and bush skills were frequently utilised by European explorers, who almost always employed Aboriginals as guides. Reynolds (1990) and Clarke (2013), therefore, argue that Aboriginal 'guides' performed crucial roles as pathfinders, trackers and translators; they employed their intimate knowledge of landscape to procure foodstuffs, water, shelter and fire, and often provided life-saving skills for European expedition parties.

As an example, water location and extraction was a critical life-sustaining skill (McLaren 1996; Reynolds 1990) and accordingly, forms a central and often

vital bush skill noted in the journals of Australian explorers. Using flora and fauna as indicators of water availability in the landscape, followed by ways of procuring it, were essential skills during these early expeditions. A typical account is that of naturalist-explorer George Grey, in Australia in the late 1830s, whose party lost their stores and boats and had to travel 600 km back to Perth. Turnbull (2000, p.10) states that they 'survived only through their Aboriginal guide Kaiber's diplomacy, his ability to discover water and persuading the people they encountered to share frogs and other seasonally plentiful foodstuffs'.

Thomas Mitchell provides an account of how he learned to obtain water in the parched Australian landscape from his Aboriginal guide Barney, who introduced him to the water filled *gnamma* holes on the ridges: 'I learned, that the only water in these deserts was to be found in the crevices of rocks, on hills such as this…' (cited in McLaren 1996, p.124). Another example is to be found in Mitchell's account whilst camped by a muddy waterhole during his first expedition, detailing how he learned the technique for clarifying water from his Aboriginal guides, to make it more potable:

> [Fortunately] the blacks knew well how to obtain a cool and clean draught, by first scratching a hole in the soft sand beside the pool, thus making a filter, in which the water rose cooled but muddy. They next threw in some tufts of long grass, through which they sucked the cooler water thus purified also from the sand or gravel. I was very glad to follow the example, and I found the sweet fragrance of the grass an agreeable addition to the luxury of drinking. (Mitchell 1839, p.23)

In a similar journal entry, George Fletcher Moore (1798-1886), a prominent early settler in Western Australia who conducted a number of explorations, observes that a tree the Aboriginals called *wando* could be used to relieve thirst:

> In hollow trees of this sort, water is frequently retained, which forms the only resource for natives in summer, in many districts. It is discovered by discoloration of the bark. A hole is opened with a hammer and carefully closed again. (Moore 1884, p.73)

Furthermore, Moore reported that he had not only observed that the *wando* tree could be used to relieve 'the distress of thirst to some travellers…on some of the most arid tracts of ground', but he also reported details for the correct identification of this eucalypt, and made the subtle observation that one should only bother with those trees that displayed a 'slight discoloration on the surface'

(cited in McLaren 1996, p.124). This kind of detailed, nuanced knowledge of the landscape was not likely to have been learned by European trial and error, highlighting instead the reliance of explorers upon their close observation of, or direct transmission from, Aboriginal guides. The lack of attribution to Aboriginal sources may provide an example of bush skills being ideologically displaced by colonial appropriation. However, in his popular publication, *Ray Mears Goes Walkabout,* Mears (2008) deliberately highlights that local Aborigines showed Eyre lifesaving bush skills such as how to dig behind sand dunes on the sea shore to gain fresh rather than saline water; how to break off the roots from the 'gum tree' and suck them to relieve thirst and how to collect dew, and to recognise, use and look after the water holes of the Aboriginals (2008, p.33). Eyre himself is also clear about the source of his knowledge:

> I took a sponge, and went to try to collect some of the dew which was hanging in spangles upon the grass and shrubs; brushing these with the sponge, I squeezed it, when saturated, into a quart pot, which, in an hour's time, I filled with water. The native boys were occupied in the same way; and by using a handful of fine grass, instead of a sponge, they collected about a quart among them…We had now demonstrated the practicability of collecting water from the dew. I had often heard from the natives that they were in the habit of practicing this plan, but had never before actually witnessed its adoption…The natives make use of a large oblong vessel of bark, which they hold under the branches, whilst they brush them with a little grass, as I did with the sponge; the water thus falls into the trough held for it, and which, in consequence of the surface being so much larger than the orifice of a quart pot, is proportionally sooner filled. (Eyre 1845, vol.2, pp.361-362)

The significance of accounts such as Eyre's is two-fold: firstly, they demonstrate the way in which colonial explorers were often directly reliant on the knowledge of indigenous peoples for their basic survival and exploratory success; secondly, they exemplify explorers' learning, adoption and adaptation of this practical knowledge for themselves, amalgamating it with their own European technologies and techniques, such as Eyre's sponge. The details concerning whether such knowledge was given or taken, acknowledged or assumed, is often unclear; no doubt transmissions were ad-hoc, expedient, extemporary and often largely unrecorded. However, such acquisition of 'bush' knowledge both directly benefitted the explorers who learned it and was absorbed into a Western set of practices, cognate to McLaren's (1996) description of the development of the Western 'tradition' of bushmanship or bushcraft for exploration.

3.2.2 The codification of indigenous knowledge for exploration

Bushmanship in Australia, then, reflected the development of a new set of hybrid practices, emerging around an expedient collection of exploration techniques, drawn substantially from indigenous knowledge. These began to cohere into a pool of skilled-knowledge and practices for remote, sustained travel in unknown wilderness. Their central feature is a combination of universal European scientific knowledge (such as navigational instruments, horsemanship and time-keeping apparatus for example) with local indigenous land-based 'survival' techniques. This hybrid knowledge domain, however, was highly uneven in its coverage. Its new knowledge was derived from particular landscapes and ecologies with specific local and indigenous inhabitants. A codification of skill constellations for broader application was eventually made available in the context of a culture of adventurous exploration in Victorian Britain.

The codification of the 'survival' techniques of indigenous peoples, as recorded by explorers, found its first expression in a manual that sought to consolidate exploration techniques and advice for travellers. This was Francis Galton's seminal *The Art of Travel or Shifts and Contrivances Available in Wild Countries* (1855), the contents of which list 47 areas in which the traveller requires expertise, including 'Water for Drinking':

> The Australians who live near the sea, go among the wet bushes with a great piece of bark, and brush into it the dew-drops from the leaves with a wisp of grass; collecting in this way a large quantity of water. Eyre used a sponge for the same purpose and appears to have saved his life by its use. (Galton 1855, p.223)

Galton's work demonstrates both codification (which Pratt relates to the globalisation and systematisation of the colonial, scientific, urbanisation of indigenous knowledge) and dependence on the work of early explorers. Similarly, William Barry Lord and Thomas Baines's volume, *Shifts and Expedients of Camp Life, Travel, and Exploration*, first published in a serial format in 1868 and in then published in one volume in 1871 (1871; 1868), echoes Galton's title and continues his foregrounding of the importance of gaining specialist knowledge from an indigenous source:

> Even in the most desert parts of South Africa the traveller ought not to despair of finding means of quenching his thirst, even though water may not be obtainable…The natives of nearly every separate district know of some peculiar root…and it is always well to encourage them to bring a supply, not only of the root but of its leaves, and to ask them to point out the plant, so that its appearance may be observed before it is disturbed. (Lord and Baines 1876, p. 460)

Indigenous knowledge was vital to the successes of Australian exploration, therefore, whether through conscious observation or unconscious absorption of local practices as a kind of 'hidden curriculum' (Kelly 2009) that went unrecorded. Such knowledge was hybridised with European knowledge and through the adaptation of European artefacts to its practice. It was eventually systematised as global knowledge for travellers. It is in such shifts, contrivances and expedients that bushcraft found its origins. Following Reynolds (1990), this thesis proposes that while the colonisation of Australia required the development of competent European bushmanship, the development of bushmanship in turn, rested upon, and was significantly derived from, the acquisition of local indigenous ecological knowledge. This raises the question of whether 'bushmanship' or 'bushcraft', in its genesis, must be regarded simply as the colonial appropriation of indigenous knowledge.

2.4 The origins of Woodcraft on the American frontier

Long before the development of bushmanship in Australia, trade, exploration, settlement, surveying, scientific work and missionary activity were well underway in the 'wilderness' of the North American frontier. The idea of the 'frontier' as a founding metaphor for settler societies, such as North America, Canada and Australia is – as Frederick Turner (1921) first suggested in his *Frontier Thesis* – an 'elastic one' (Furniss 2005; Turner 1921, p.3). Seeing the frontier as a moving boundary, Turner (1921, p.3) called it 'the outer edge of the wave – the meeting point between savagery and civilization'. Implicit in Turner's language was the idea of 'civilization' conquering 'savagery' and the frontier as a place of both military fortification and settlement:

> In the settlement of America we have to observe how European life entered the continent, and how America modified and developed that life and reacted on Europe. Our early history is the study of European germs developing in an

> American environment…. The frontier is the line of most rapid and effective Americanization. The wilderness masters the colonist. It finds him a European in dress, industries, tools, modes of travel, and thought. It takes him from the railroad car and puts him in the birch canoe. It strips off the garments of civilization and arrays him in the hunting shirt and the moccasin. It puts him in the log cabin of the Cherokee and Iroquois and runs an Indian palisade around him. Before long he has gone to planting Indian corn and plowing with a sharp stick; he shouts the war cry and takes the scalp in orthodox Indian fashion. In short, at the frontier the environment is at first too strong for the man. He must accept the conditions which it furnishes, or perish, and so he fits himself into the Indian clearings and follows the Indian trails. Little by little he transforms the wilderness, but the outcome is not the old Europe, not simply the development of Germanic germs, any more than the first phenomenon was a case of reversion to the Germanic mark. The fact is, that here is a new product that is American. (Turner 1921, p.4)

Here Turner uses a highly romantic rhetoric to separate American from British identity, and in so doing, he asserts a kind of American nobility by association with the 'savage'. The tough masculinity of his narrative, of first surviving the wilderness by accepting and adapting to its conditions, but eventually overpowering it, was characterised by values of 'individualism, resourcefulness, self-sufficiency and democracy' (Furniss 2005, p.24). The absence of an external social framework and engulfment by a threatening wilderness required pioneers to embrace 'savagery' in order to survive, and the concept of 'savagery' was typified by skills such as paddling birch bark canoes, hunting and fishing. In the eyes of metropolitan Europe, settlers adopting the skills and technologies of indigenous peoples socially 'devolved' or 'reverted' to a primitive life, where only the fittest could survive. From this survivalist ethos a new identity emerges – not European, but distinctively American (Furniss 2005).

For Turner, then, the frontier is as an interstitial space of hybridity and ambivalence, a place where complexity and uncertainty continuously disrupt 'imperial logic'. 'In this way it uncovers the deep ambivalence of a structure of economic, cultural and political relations that can both debase and idealize, demonize and eroticize its subjects' (Ashcroft, Griffiths and Tiffin 2000, p.20). At the same time, Turner's narrative provides a succinct example of the process of appropriation, moving from initial attribution of 'savage' skills to indigenous people to their systematisation and globalisation as specifically 'American' knowledge; the implication is that at least a kind of urbanisation has conquered and replaced wilderness. Pratt (1992, p.7) uses the term 'contact zone' to describe engagements and interactions between cultures as 'social spaces where

disparate cultures clash, meet and grapple'. However, cultures did not only grapple and clash in the contact zones of the frontiers but also engaged with one another, intermingled, married and adopted various aspects of the others cultures to produce hybrid or new cultures. In such contexts, on the North American frontier zone, hybrid cultures emerged (Nobles 1989), comprising pioneers, backwoodsmen and frontiersmen. Defined by the skills and abilities that enabled them to live and operate in the area, these people combined the knowledge and skills of both Europeans and native North Americans. Those skills were later to be collectively described as 'woodcraft' or 'backwoodsmanship', and they were eventually absorbed into the contemporary domain of 'bushcraft'.

The Coureurs de Bois: The economically competitive wilderness of the American frontier produced interrelated but distinct frontiersmen – 'coureurs de bois', 'voyageurs', 'explorers' and 'mountain men' – all based on the fur trade (Slater 2014, p.94). 'Forged by economics, fur, and wilderness', these four frontier types came to express masculine prowess in association with 'savage wilderness' and their abilities as competent, tough, rugged and skilled woodsmen (Slater 2014, p.94). So central to the fur trade were the skills of the woodsman that, as early as 1615, the Governor of Quebec City, Samuel de Champlain, began selecting young French men to live among Indian families. They underwent deep immersion in the lives of native tribes such as the Huron, Montagnais and Ottawas (Butterfield 1881, p.29), becoming known as 'coureurs de bois', 'runners of the woods' or simply 'woods runners'. Champlain's intention was to improve trade by establishing closer relations with the native inhabitants who controlled the routes and possessed the skills to hunt, trap, skin and prepare hides for pelts which were of great economic value in Europe. In placing these young men with Indian tribes, Champlain hoped they would absorb the native languages, customs and especially the skills for living and travelling in the forest. For example, Jean Nicolet, a famous coureur de bois, was among the first young men that Champlain placed with the Huron in 1618. Butterfield (1881, p.29) records of Nicolet:

> 'To "the Nation of the Isle," then, was sent the young Norman, that he might learn their language, which was in general use upon the Ottawa river and upon the north bank of the St. Lawrence. With them he remained two years, following them in their wanderings, partaking of their dangers, their fatigues,

> and their privations, with a courage and fortitude equal to the boldest and the bravest of the tribe. During all this time, he saw not the face of a single white man. On several different occasions he passed a number of days without a morsel of food, and he was sometimes fain to satisfy the cravings of hunger by eating bark'.

This quotation conveys the qualities of hardiness, resourcefulness, determination and skill required. In discussing frontier types in relation to masculinity, Slater (2014) describes Nicolet as a man 'somewhere between explorer, voyageur, and coureur de bois', since he 'embodied the transition from explorer to woodsman' (Slater 2014, p.98). However, unlike Nicolet, many of the coureurs de bois largely rejected European custom as their main mode of living, preferring instead to fully embrace a life among the Indians; they would 'go native', marrying local women with whom they produced children who would become known as 'metis', and producing creole cultures.

Known for their adventurous activities and their accomplished skill in woodcraft, the coureurs de bois were some of the first Europeans to deeply engage with the activities necessary for self-sufficiency in the American wilderness – such as fishing, hunting, snow shoeing and canoeing – all of which depended upon skills learned from the native inhabitants. However, their abjuration of European 'civilisation' eventually became a concern for the French authorities who, disliking and mistrusting the coureurs de bois for their allegiances to native tribes rather than to France, began to license all trading activities (Slater 2014). Those legitimised by the new licensing scheme became known as 'voyageurs'.

The Voyageurs: The voyageurs, or 'travellers', were the main figures involved in transportation of furs collected from Indians and taken across the Great Lakes by birch bark canoe to the main trading posts of the North West Company and the Hudson Bay Company. Unlike the coureurs de bois, the voyageurs maintained closer links with European society, licensed by colonial authority but nevertheless creating a distinctive hybrid frontier culture. This was reflected in their flamboyant style of dress, which distinguished them from other groups in New France, as described by historian Grace Lee Nute (1931):

> …a short shirt, a red woollen cap, a pair of deerskin leggings which reach from the ankles a little above the knees, and are held up by a string secured to a belt about the waist, the arizon [‘breech cloth’] of the Indians, and a pair of deer skin moccasins without stockings on the feet. The thighs are left bare. This is the dress of the voyageurs in summer and winter. (Nute 1931, p.14)

Nute’s description depicts the hybridity of the voyageur culture which, with high degrees of pride, combined many features of Indian clothing, style and materials along with those of the European. Visually, they reflected their professional skill, European heritage and wholehearted embrace of native elements ‘to accent a costume of clothing that combined native and European elements’ (Slater 2014, p.107). Nute further highlights the centrality of the birch bark canoe to the voyageurs’ profession and identity when he says, ‘disassociated from his canoe the voyageur can hardly be imagined…it was his carriage by day, his house by night, the topic of fully half his conversation, and the object of his pride’ (1931, p.24). The birch-bark canoe of the voyageur was perfectly adapted to the landscape in which it was required for travel. Used by the native Indians and adopted unchanged (except in dimensions) by the European voyageurs, the birch bark canoe was perhaps the single most important item of technology in the European conquest of inland North America. Explorers and traders who crossed the continent fully adopted Indian birch bark canoe technology, including its design and techniques of construction. Some voyageurs, it can be assumed, also learned how to make and repair the craft. It has subsequently become an icon of modern bushcraft, providing a direct link between contemporary practice, hybridised skill and indigenous knowledge.

The Birch-Bark Canoe: In the ‘Birchbark Canoe’ episode of the BBC television series *Ray Mears’ Bushcraft,* Mears describes the canoe as ‘one of the greatest treasures of bushcraft’, stating unequivocally that ‘if there is one type of canoe that epitomises bushcraft above all others, it has to be […] birch-bark canoes’ (‘Birchbark Canoe’ 2005). Describing its manufacture from materials taken directly from nature, Mears emphasises technique and craftsmanship in locations where Europeanised industrial technology is absent: ‘The hull is made from the skin of the tree itself, spread with a frame of cedar and the whole thing lashed together with roots – they are icons of bushcraft – and they reflect their manufacturers’ intimate and detailed knowledge of the natural world’

('Birchbark Canoe' 2005). This, in turn, illustrates the centrality of 'land-based skill for travel' in contemporary bushcraft. The programme illustrates the construction of a birch bark canoe following traditional techniques and made to a traditional Algonquin design. Contemporary maker, Pinock Smith, is featured showing Mears how to make such a canoe while the audience is informed that Smith originates from a family of traditional canoe builders and lives on a reservation north of Ottawa. The interaction between Smith and Mears replicates an earlier historical period's transmission and hybridisation of knowledge and explicitly reclaims its indigeneity. This is evident in the conversation with Smith while they both prepare the materials for the craft, and Mears asks if Smith follows any measurements or particular dimensions while constructing the craft. Smith responds that he does not, that he just 'works with the wood', to which Mears adds, 'I think that is the lovely thing about all these sorts of projects, you have to actually listen to what the wood is telling you and you have to just go with the flow – very different to modern carpentry' ('Birchbark Canoe' 2005). Smith agrees, adding, 'it's very free' ('Birchbark Canoe' 2005). Concurrently, Mears uses the work to define a key principle of bushcraft: 'typical of bushcraft, the whole process is based on a deep understanding of the properties of the materials we were using' ('Birchbark Canoe' 2005). Then, while splitting wood for the gunwales of the canoe Mears adds 'With each new split you need to pause, explore and reassess the materials you are using' ('Birchbark Canoe' 2005). Continuing this link between indigenous knowledge and bushcraft, Mears further highlights the relationality and reciprocity of working with natural materials and simple hand tools to craft the things you need from nature, saying while splitting a difficult 'knotty' piece of wood:

> I have never worked with cedar before. It splits better than any wood that I have worked with…and of course the principles for splitting, and keeping the split running true, are universal…As always, the troublesome areas are where there is a knot and you just have to take your time; and it's a combination of listening to what the wood wants to do and also telling it what you want it to do…you have to persuade it to go where you want it to'. ('Birchbark Canoe' 2005)

In this way Mears and Smith illustrate not only the history of the birch bark canoe and its material construction but also the kind of know-how that was required to craft the canoe and the principles of that craftsmanship: where to

locate the right materials at the right time; how to harvest and prepare them in the correct fashion; and how to process them into a canoe. This requires a deep understanding of the properties of the raw materials that must be manipulated. It also illustrates the complementary local and global dimensions of such knowledge – the ways in which it can travel as skills developed in one location are adapted to the materials available in another. This, in turn, draws attention to the significance of the relationship with natural materials inherent within bushcraft skills. Thus, the historical interaction between Western peoples and indigenous cultures, like the voyageurs and the coureurs de bois, becomes also the history of learned skills and Western historical interactions with raw nature through those skills required for wilderness travel and life. This demonstrates the necessary principles of relationality with materials and landscape that must be learned alongside the practices of technical know-how and the inner qualities of craftsmanship. Such skills provide a conceptual and practical bridge between the contemporary concept of bushcraft and the pre-contact skills of indigenous peoples.

2.5 North American trader-explorers

The economic exploration of western and central Canada provided the impetus for early explorers to search for new trade routes and sources of fur. Accounts of life and exploration with various indigenous groups are provided by figures such as Pierre-Esprit Radisson, Médard Chouart Des Groseilliers, Henry Kelsey and Anthony Henday, all of whom made notable journeys that expanded trade routes and relations for the Hudson Bay and North West fur-trading companies. For example, Kelsey travelled south from York factory until he met the Mandan Indians near the banks of the South Saskatchewan River in 1690. The key to Kelsey's achievement lay in his ability to speak Cree and to live and travel with the aboriginals. William Stuart (1715-16) and Richard Norton (1717-18) travelled with native Indians north-westward among the Chipewyan. And in 1754 Anthony Henday conducted a notable journey up the North Saskatchewan River to the Great Plains, where he attempted to establish friendly trade relations with the Blackfoot. Henday travelled with the Cree and with an aboriginal woman. All of these men recognised the centrality of native knowledge in

achieving their aims and relied upon local guides and their skills to enable their explorations and enskillment (Hearne and Tyrell 1911, p.12).

It was Samuel Hearne's account of his three expeditions between 1769 and 1772 that provides perhaps one of the most insightful descriptions of expedition life with native Indians. Hearne gave extensive and detailed ethnographic details about the methods and techniques used by the Indians. While employed by the Hudson Bay Company to cross Northern Canada to the Arctic Ocean in search of a copper mine, he travelled with Indians through difficult country where, despite being an accomplished woodsman, he lacked the knowledge to traverse and live from the land. It was Chipewyan hunter and leader, Matonabbee, who guided Hearne's third and most ambitious journey, in which he travelled as the only European. Hearne both relied upon the techniques of his Indian guides and adopted many of them himself, travelling with very little equipment by European expedition standards:

> As to myself, little was required to be done, as the nature of travelling long journeys in those countries will never admit of carrying even the most common article of clothing; so that the traveller is obliged to depend on the country he passes through, for that article, as well as for provisions. Ammunition, useful iron-work, some tobacco, a few knives, and other indispensible articles, make a sufficient load for any one to carry that is going a journey likely to last twenty two months, or two years. As that was the case, I only took the shirt and clothes I then had on, one spare coat, a pair of drawers and as much cloth as would make two or three pairs of Indian stockings, which, together with a blanket for bedding, composed the whole of my stock clothing'. (Hearne and Tyrell 1911, p.59)

This minimalist approach is evocative of core bushcraft ideology and imagination: a principle and desire at the heart of contemporary bushcraft practice, summed-up in the modern bushcraft maxim 'The more you know, the less you carry' (Karamat Wilderness Ways 2016). Such minimal resources require an intimate dependence upon the land and ecology traversed and Hearne provides one of the most detailed accounts of such a journey available. Again, a link from indigenous knowledge through hybridised practice to modern bushcraft is provided by Mears. In the BBC production *Northern Wilderness,* Mears ('The Unknown Pioneer' 2009) tells his audience that through his reading of *A Journey to the Northern Ocean*, Hearne became like a personal tutor to him – a source that Mears utilised to extend his own assiduous learning. But not only

did Mears acquire bush knowledge from reading Hearne's journals, he tells us that Hearne taught him key 'principles' of bushcraft such as 'learning from local knowledge' – a philosophy, says Mears, that was far ahead of its time. For Mears, Hearne represents 'the earliest celebration of indigenous skills I have ever encountered', and it was from Matonabee that 'Hearne learned how to travel like an Indian – fast and light, taking only what they needed from the land' ('The Unknown Pioneer' 2009).

Arctic explorer John Rae (1813-1893) was also noted for his athleticism, skill at hunting, canoeing and use of local indigenous methods for traversing the land with little equipment while living from its natural resources. Rae learned such skills from indigenous Arctic peoples and, working with local Cree craftsman, he acquired vital knowledge such as making and repairing snow-shoes (even designing his own snowshoes) and how to hunt caribou and store the meat (McGoogan 2002). He later learned from the Inuit about everyday life on the Arctic trail, including how to ice the runners on his sled, how to dress using caribou furs, how to avoid snow blindness and how to construct a shelter such as an igloo (Mears 2010). This hybridised knowledge allowed him to travel great distances with little equipment, in contrast to many other Victorian explorers (McGoogan 2002). However, Rae, like other explorers who utilised indigenous methods, did not simply learn and acquire 'native' ways and venture off alone into wilderness, rather he travelled as the only European in an all 'native' party to discover the Northwest Passage so that, like Hearne, his was essentially an indigenous expedition, funded by Europeans with European aims, but undertaken by indigenous people with one European representative in their party, whom they fed, outfitted and who learned from them.

Thus Rae, who would ultimately discover the final missing passage of water in the North West passage – 'Rae Strait', could not have done so without the native guides, lessons and technologies that he adapted and relied upon. Mears contrasts Rae's methods and approach of employing indigenous guides and adopting indigenous knowledge, skill and technique with that of Royal Navy officer and explorer, Sir John Franklin, who used the most advanced Western technologies, only to fail; Rae's use of indigenous technologies succeeded. Franklin's ships epitomised the pinnacle of modern technology – steam power, strengthened hulls, tinned food – but 'Franklin was not a man who could adapt

to conditions; he reflected the Victorian attitude of superiority – a ship with several years of supplies of tinned food had no need of local knowledge' ('In Arctic Footsteps' 2009). Mears's narrative highlights not only the superiority of indigenous land-based knowledge but also the crucial importance of its hybridisation, through adaptation, for European success. Rae's adoption of Inuit snow houses and 'Caribou clothing', says Mears, 'was the final element that brought John Rae the freedom to explore where others feared to tread' ('In Arctic Footsteps' 2009).

So, those European explorers who were committed to learning skills from local populations, by living with and travelling with them, most successfully executed the colonial project. This enabled them incrementally to develop independent abilities to travel and live for extended periods in wild and unmapped regions. As Mears suggests of the North American frontier, 'It's a country that it took a woodsman's skills to explore, and bushcraft knowledge to survive' (Mears 2010, p.5). With this observation, Mears explicitly connects, like Reynolds (1990), the advancement of exploration with the prior development of bush skills, arising from learning the skills of the local indigenous peoples. At the same time, the narrative tradition of sub-Arctic and Arctic exploration that followed Hearne, Rae and Franklin was to become another site of romantic masculinity and bravery with an emphasis on willpower and moral strength (Bloom 1993).

2.6 The self-reliant mountain men & backwoods pioneers

In 1789 explorer, Alexander McKenzie (1764-1820), set out from Fort Chipewyan with his Indian guide, English Chief, in a birch-bark canoe to discover a westward route to the Arctic Ocean. McKenzie's explorations eventually opened up new routes into the Rocky Mountains, which fur-trappers followed, developing fur trading in the West. However, many 'Indians' of the West had little interest in trapping for fur and, by this time, Europeans had developed enough knowledge of the frontier culture to trap for furs themselves. As a result, the fur-trading companies hired European frontiersmen as well as indigenous trappers to obtain pelts. These European trappers, who became known as 'mountain men', roamed through the wild areas of the Rocky Mountains in search of fur. Mountain men such as Kit Carson, John Colter and

Jedediah Smith became famous for their role in the opening-up of the West, and the characteristics of the mountain men eventually contributed to notions of American identity –rugged individualism, bravery, autonomy, masculinity and adventure – performing a similar cultural function to images of bushrangers in Australia.

The daily activities of the mountain men involved setting and checking trap lines from one river drainage to another. They waded the mountain streams, trapped and skinned beavers and transported pelts by packhorse rather than canoe. The mountain men trapped and hunted in the spring and fall and many Europeans and Indians came together for trading at mountain 'rendezvous' points. The death toll was high and tales of bear-fights and other misadventures were recounted during mountain man rendezvous, reflecting the strong culture of 'braggadocio' amongst these types. The biographies of mountain men are heroic survival narratives and Victor (1870, p.50) describes their competitive nature as each trapper at the rendezvous laid claim to possessing the best horse, having the wildest adventures and the narrowest escapes. Carter and Spencer cite as definitive the sketch of the mountain man stereotype provided by Ruxton (1847) in his *Adventures in Mexico and the Rocky Mountains*:

> The trappers of the Rocky Mountains belong to a genus more approximating to the primitive savage than perhaps any other class of civilized man. Their lives being spent in the remote wilderness of mountains, with no other companion than Nature herself, their habits and character assume a most singular caste of simplicity mingled with ferocity…their sole care is to procure sufficient food to support life, and the necessary clothing to protect from the rigorous climate…They may have good qualities but they are those of the animal; and people, fond of giving them hard names call them revengeful, bloodthirsty, drunken…in fact "White Indians". (cited in Carter and Spencer 1975, p.21)

However, not all frontiersmen were fur-traders and, by the 1700s, the process of settlement was underway. In their detailed study of *The American Backwoods Frontier*, Jordan and Kaups (1992, p.1) say that, in the 1720s, pioneers on the Pennsylvanian frontier were known by various names which included 'backsettlers', 'woodboys', 'woodsmen' and 'squatters', with 'back-woods men' eventually becoming the favoured term by the 1780s. Landed gentry such as William Byrd II, and other 'elite observers', provided insights into the subculture that developed along the frontier, suggesting in 1728 that the

distinction between white settlers and Indian 'savages', in terms of their 'civility', was hardly discernible (Nobles 1989, p.644).

Observerations in various places across America catalogued the traits of the back-woods men. For example politician Benjamin Rush and physician Johann David Schoepf provided two of the earliest descriptions of the pioneers. Schoepf wrote, 'These hunters or backwoodsmen live very much like Indians and acquire similar ways of thinking', while Rush notes that the pioneer 'soon acquires a strong tincture' of Indian manners (cited in Jordan and Kaups 1992, p.4). Rush continues by highlighting the anarchistic qualities of the backwoodsman who 'resists the operation of the laws' and 'cannot bear to surrender up a single natural right for the all the benefits of government' and 'who's object is altogether natural freedom' (cited in Jordan and Kaups 1992, p.4). These traits, taken together, described the strong anti-establishment and obstinate autonomy that characterised both the mountain men and the backwoods pioneers, suggesting that their hybrid[8] culture remained apart from metropolitan 'civilisation' and perhaps rejoiced in the separation. Similar views were expressed throughout the frontier regions, where the term 'white Indian' was used to describe squatters and trappers (Nobles 1989).

2.7 Fieldcraft, guerrilla warfare and the martial frontier

The frontier skills of the rugged mountain men, trappers and early backwoods settlers also became valuable in developing the ranger units that provided vital warfare and intelligence gathering during the intermittent North American Indian Wars from 1675 to 1715 (Lock 2001). Not only was the development of European backwoodsmanship vital for successful trade and exploration, but also for the brutal processes of European martial expansion, conquest and

8 The first generation of mountain men and backwoods pioneers are generally classified as a hybrid culture, which the second generation inherits as a 'third culture' and transmits as a 'new culture', as the assimilation of the first generation's conscious hybridity progresses. As Hermanns puts it, 'The innovative potential of the process of hybridization is exemplified by the phenomenon of "third culture," in which two or more original cultures are combined into a new one … countless people of virtually every nationality do not fully belong to any group in the world … All of them have one thing in common: they are spending or have spent at least some part of their childhood in cultures or countries other than their own.' (Hermans 2015, p. 34).

colonisation and control across the whole of North America. European martial activity provides another lens through which the adoption of native skills can be clearly observed. For example, the backwoods skills that were adopted from indigenous land-based practices also led to developments in European bush fighting or wilderness warfare tactics, which feature prominently in the accounts and reputations of those individuals who defeated indigenous populations or rival Europeans in conflicts; these conflicts inevitably arose over competition for land, trade and resources (Went 1998). A notable example of such an individual is Roger Roberts and his Ranger Corps in the Seven Years' War between Britain and France.

King Philip's War, or The First Indian War (1675-78), marks the first armed conflict between Native Americans and the European New England settlers and their Indian allies. These early colonists faced major challenges in fighting the Indian inhabitants. The Indians did not engage in pitched battles in customary, European ways with which the British were familiar; rather they were adapted to their 'harsh' environment and could travel vast distances day and night, in any season, by foot, snowshoe or canoe (Lock 2001). In this way, the Indians utilised stealth and reconnaissance tactics to target an adversary, which was followed by a swift and unsuspected raid upon their intended victims and a rapid retreat (Grenier 2005; Lock 2001). The European long campaign of manoeuvre proved ineffective against the terrain and the stealth tactics of the native enemy, who did not announce their arrival and preferred instead to fight from behind natural cover (Went 1998). The European style of battle provided the Indian enemy with a mass target, which they knew would contain no surprise unseen elements (Lock 2001).

Following repeated disasters, it became clear that the survival of the colonist would depend on adopting the tactics of his enemy (Grenier 2005). Realising this, Captain Benjamin Church began to adopt the Indian strategy of moving through the woods in a scattered formation (Lock 2001). The colonist also sought to learn those skills required to manoeuvre long distances across challenging terrain and in difficult conditions, such as the frozen winter landscape. Accordingly, they began to incorporate the frontiersmen, mountain men and backwoodsmen into their ranger units; these men were already hardy, rugged and skilled in the way of the woods and could trap and travel long

distances. Critically, they also began to include friendly Indians in their units during King Philip's War. Colonists defended against Indian raids by sending out patrols to 'scout' the surrounding areas for potential stealth attackers in the hope of gaining the advantage of advanced warning. In this way, the skills of long-range scouting also became valuable for gathering vital military intelligence. Therefore, it was vital that the military scout develop the skills to travel long distances with few provisions, requiring him to learn how to live and travel through trackless wilderness.

During King Philip's War, Colonel Benjamin Church became the captain of the first Ranger[9] force in America. Known for his early adoption of Native American methods of warfare, Church learned to fight like an Indian by merit of being taught by the Indians. Instructing his men to learn and adopt the methods of warfare embraced by the American Indians, Church's American Rangers came to acquire and develop their bush skills under the tutelage of allied Indians (Cuneo 1959). Church eventually developed the first full-time unit containing both white frontiersmen and Indians. Ranger units learned land-based skills directly and intentionally from the allied Indians. Rangers also adopted skills and technologies for long-range wilderness travel and sustenance, such as learning how to paddle, make and repair the Indian birch-bark canoe and to travel across the deep snows of a New England winter on snowshoes, wearing moccasins (Knitis 2007). According to Knitis, the winter appurtenances of the long-range scout consisted of wool, fur, canvas and leather clothing, gloves and hats; it also included leather moccasins and snowshoes, ice creepers and wooden toboggans to carry gear and provisions, all of which were used with great effect to cover large distances.

The use of Indian allies and their techniques became progressively valued and utilised within both French and British forces, and by the time King George's War broke out (1744-1748) several ranging companies had been

[9] The distance or 'range' that these patrols would cover depended upon season, equipment and supplies. Those who joined these 'ranging' patrols became known as 'rangers'. However, the term goes back to the thirteenth century in England where it was used to refer to a 'far-ranging' forester or borderer. By the seventeenth century the term was used as a title for irregular military groupings such as the 'border rangers' who operated along the troubled border of England and Scotland. The term followed early settlers to North America (Grenier 2005; Todish 2002, p.16).

formed, such as those belonging to Captain Daniel Ladd and Captain Ebenezer Eastman (Todish 2002). In 1746, aged fourteen years old, Robert Rogers, already a reputable and skilled woodman, hunter and trapper, joined Ladd's company and began to acquire the skills and techniques of frontier warfare. Later to be promoted to the rank of major, Rogers developed his own ranger unit – an irregular fighting force that excelled in wilderness warfare by developing and employing irregular guerrilla tactics. He recruited mountain men who were skilled in the ways of the woods, with extensive experience from trapping beaver to trailing and pursuing Indians, and over time, as a function of these skills, they came to be known as 'Rogers' Rangers' (Lock 2001).

While such tactics had been employed during King Philip's War, it was Roberts who would find notoriety for himself and his tactics by refining and codifying them, thus bringing them to prominence through his notorious ranger unit and his '28 Rules of Ranging', a military protocol that he created in 1757. These rules were a result of Roberts's innovative blend of Native American tactics and his own revolutionary military ideas which, taken together, created a mobile, well-trained force that was capable of living sustainably off the surrounding land for long periods of time. Such units were on the periphery of the main army, gathering intelligence for the British army. They are still considered to be the model for all military ranger activities and they form the basis of the 'Standing Orders' taught to U.S. Army Rangers today. The desire for 'military survival training', therefore, was not only a foundational influence on modern bushcraft practice but continues to characterise a good number of customers of bushcraft organisations when it comes to learning skills such as fire-making, foraging, shelter-building, tracking and evasion. Thus, we can see a line of continuity between Church's and Rogers's hybridised practical techniques and their use of Indian allies as teachers, the emulation of native warfare tactics and contemporary practices shared by bushcraft and modern special operations military units.

Chapter 3 : The Emergence of Modern Bushcraft

3.1 Introduction 3.2 The 'wilderness survival guide' in the public domain 3.3 The frontiersman, and the imperial scout 3.4 Woodcraft skills for youth education 3.5 Indigenous knowledge, ethnography and survival skills 3.6 The ecological perspective

3.1 Introduction

Chapter Two explored the early history of bushcraft, identifying the colonial adoption of indigenous land-based skills and knowledge by the first European explorers, traders and soldiers; those frontiersmen who sought out and developed the competence to cope with travel and living in remote and alien wildernesses. Bushcraft's genesis was located in the relationship between Western colonial travelling knowledge and indigenous land-based skill, positioning it in a kind of hybrid 'third space'. This chapter continues the historical narrative, arguing that from around the mid-nineteenth century this hybrid began to transform into the two broad (and fluid) categories of *woodcraft* (best characterised by the backwoodsmen, fur traders and mountain men) and *frontier scouting* (the military scout, Indian fighter or South African scout). To provide a clear historical narrative, critique is reserved until the end of the chapter, where it is positioned to lay the ground for subsequent deeper analysis

3.2 The 'wilderness survival guide' in the public domain

3.2.1 The explorer's manual

From the mid-1800s increased access to wild places was paralleled by a new literary development, from the sentimental literary narrative of adventure to the realistic how-to guides or manuals that detailed practical skills required for expedient travel. No longer just the self-narrated hero, the seasoned adventurer could now turn to instructing others who were similarly called to the adventurous life. In this way the bushmanship, woodcraft and fieldcraft, which held together what we might think of as the 'colonial craft' of the explorer-frontiersman, became first recognised as a particular category of explorer knowledge and codified into sets of instructions for aspirant explorers. From this the very first instructional guides to aid the practical necessities for life in remote regions, alien climates and unfamiliar ecologies of the world, began to emerge. It was the British eugenicist Frances Galton who, in 1855, produced the first book of its

kind, a landmark publication – *The art of travel: shifts and contrivances available in wild countries*.

This book broke the mould as a travel manual, collating, for the first time, comprehensive techniques essential for life in the wildest regions of the globe: expedient ways of procuring water from the land, for lighting fires, for improvised fishing techniques and so on. It describes a myriad of useful 'shifts and contrivances' that combine Western expedients with indigenous land-based wisdom and techniques, developed by Galton when he explored South West Africa in 1850-51. *The Art of Travel* is full of explorer-travelling knowledge and practical know-how and reveals the way in which adventurous travel emerged as a genteel occupation and recreation at this time. Galton's preface to the book is ideologically revealing, distinguishing 'bush lore' from indigenous knowledge in the highly derogatory manner of the colonial mind. On the one hand he acknowledges that the 'natives' taught him 'a great deal', but on the other hand their knowledge of European 'bush lore' was 'partial and limited' (1855, p. v). He goes on to note the lack of synthesis in 'bush lore' and asserts how he uses a 'vast number of geographical works' and 'information from numerous travellers of distinction' to collate the volume. He says:

> I should do welcome service to all who have to rough it, – whether explorers, emigrants, missionaries or soldiers, – by collecting the scattered experiences of many such persons in various circumstances, collating them, examining into their principles, and deducing from them what might fairly be called an "Art of Travel". (Galton 1855, p.vi)

Thus, for the first time expedient travel knowledge became codified and assembled to create the beginnings of a *civilian* recreational 'discipline' and 'practice' of exploration and travel.

In Britain Galton's book proved so popular that it went into eight editions in his lifetime, and may have provided the impetus for William Barry Lord and Thomas Baines to follow in 1868 with their *Shifts and Expedients of Camp Life, Travel, and Exploration*. Lord and Baines' volume is astonishing in its breadth and depth of detail. It probably remains the most extensive publication ever written on the art of wilderness living and survival skills for remote and exotic travel. It contains detailed ethnographic observations and how-to explanations for a vast array of techniques, referencing the skills and lives of the indigenous

populations that the authors encountered, alongside their own expedient travelling advice and Western techniques. Born largely of their personal experiences and extemporary requirements, the text locates itself somewhere at the intersection of an explorer's journal, an ethnographic account of the indigenous peoples they encounter and, most explicitly, a how-to instructional manual for wilderness travel. Like Galton's, the work represents a colonial codification and globalisation of explorer knowledge, appropriating indigenous knowledge where 'useful' or informative but not always acknowledging the sources.

3.2.2 Campaigning, pioneering and the military field manual

Only a few years after Galton, in 1859, American US Army Captain Randolph Barnes Marcy produced his best-selling volume, *The Prairie Traveller.* Based on his experience as a pioneer, and published by the U.S. government, it became *the* handbook for thousands of American citizens wanting to travel across the continent, providing advice on fieldcraft, provisioning, sanitation and reconnaissance. It was the first guide of its kind. A new style of 'field manual', that Galton's and Marcy's works exemplify, began to appear at this time. Other publications, which combined military 'fieldcraft' with advice for wilderness travel, included *The Canadian volunteers hand book for field service'* by Major T.S. Scoble (1868); *A handbook for field service* or *field pocket-book'* by Sir, J. H. Lefroy (1862); *Elements of fortification: field and permanent for the use of students, civilian and Military* by Auguste Frédéric Lendy (1857); *'Manual of outpost duties'* by Major G.T. Denison (1866); and *Company and battalion drill illustrated'* by Captain D. Malton (1857).

These manuals were written for both military personnel and interested civilians, since they are not exclusive to military institutions. The military subjects they cover, such as building fortifications, marching, fieldcraft, tactics, camp hygiene and sanitation, cross over from the domains of specialist martial and expeditionary knowledge and into the domain of populist, civilian, recreational adventure. They heralded a shift from military campaigning to civilian 'camp life', as a forerunner to the popular term 'camping'. In the next decade, the term 'camp life' became current, forming a bridge from the earlier military 'field craft' and 'campaigning' of rugged wilderness and military life to recreational camping with bucolic associations to rural sports such as hunting and

fishing. The term ‘camp life’ is frequently found in early field-sports publications of the 1870s, such as *Camp life in Florida; a handbook for sportsmen and settlers* by Charles Hallock (1876), *Camp life and sport in South Africa* by Thomas J. Lucas (1878) and *Camp life in the Wilderness* by Alden Charles (1879). However, during the 1880s the term began to fall out of favour, being replaced instead by ‘camping’.

3.2.3 The sentimental production of woodcraft

Woodcraft found its early expressions in the literary imaginings of the frontiersman as a ‘child of nature’ who has both the competence and inclination to inhabit nature.

James Fennimore Cooper’s Natty Bumppo, for example, is an unlettered man of the forests, with a knowledge of flora and fauna and skills in hunting and forest living, second only to the Mohicans with whom he lives. His understandings are constantly presented as different from the urbane knowledge of settlers and soldiers living in the forts and communities of eighteenth century North America. Natty (or Nathaniel) is the lead character in Cooper’s book *The Last of the Mohicans*, the second in a series of five collectively called *The Leatherstocking Tales* (Cooper 1954). In these tales, not only is Natty an exceptionally skilled man of the woods, but he also personifies the highly valued virtues of the American frontiersman. Natty is strong, courageous, intrepid, honourable and the epitome of his many titles – ‘Deerslayer’, ‘Hawkeye’, ‘Long Rifle’, ‘the Pathfinder’, ‘the Trapper’ and ‘the Scout above all scouts’. Depicted in buckskin and styled by his appurtenances, especially his rifle, his life is a celebration of the ‘primitive’ and thus a challenge to the corruptions of civilisation. His buckskin dress, in combination with the continuous emphasis upon his rifle, speaks to the hybridity of Bumppo’s material culture.

Natty’s deep friendship with the Indian Chingachgook set the stage for a whole genre of pairings between the cowboy and the Indian, such as the Lone Ranger with Tonto. By the time of Cooper’s death in 1851, the romantic image of the rugged, autonomous frontiersman, represented all the savage freedoms, noble virility and independence from civil society (MacDonald 1993). He was born of self-reliance and skill in nature and, although not a ‘primitive’ himself, he could be just as capable in nature, and became fixed firmly in the imagination and

identity of the American public through the wide popularity of media portrayals. Thus, not only was the frontiersman a useful epithet under which a diverse group of occupations could be gathered (such as cowboy, trader, explorer, voyageur, mountain man etc.), but it was also used to counter the intemperance of urban society (Humphries 2012).

By the mid-1800s, writers such as Rudyard Kipling, Robert Service, James Fennimore Cooper and John Buchan had produced a whole genre of narratives about the adventures of frontier characters, aimed at adults and children alike (MacDonald 1993, p. 32). The American frontiersman, in particular, began to symbolise a mythologised type of devotion, courage and, above all, masculinity that stereotyped the imperial dream. At the same time it provided a critique of the emasculating effects of urbanisation (MacDonald 1993), and thus emphasised moral character as much as masculine deeds of self-reliance. Furthermore, it is at this point that the gendered nature of such discourses becomes very evident.

The rapid spread of print media in the late-nineteenth century made popular folk heroes of frontiersmen and adventurers, who became romantic archetypes, coming to represent the core traits of the American national identity just as the Victorian imperial explorer characterised the British identity. These two overlapping types – the American frontiersman and the imperial British explorer – had, by the turn of the twentieth century, merged in British consciousness, forming an ideal of masculine character and brotherhood in association with a rugged wilderness life, providing an imaginative touchstone for modern bushcraft, in style, skill and concept.

3.2.4 Woodcraft and camping

In the final decade of the nineteenth century, the term 'woodcraft' signified a new vision for camping and wilderness-related skills that arose predominantly in America. *Woodcraft,* by George W. Sears (known as Nessmuk), published in 1884 heralded the start of the 'golden age of camping'. Throughout this period a host of woodcraft manuals appeared, such as *Nature and Woodcraft* by John Watson (1890) and *Camping and Woodcraft: a guide for those who travel in the wilderness* 1906, by Horace Kephart. There were also publications such as Edward Breck's *The Way of the Woods* 1908, which emphasised the growing contrast between 'woodcraft' and more recognisable forms of recreational

camping: the latter using 'modern' consumer goods, whilst woodcraft focused on the masculine ideals of the frontiersman of old: trapping game, tanning furs, cooking on campfires and travelling on foot or canoe through the wilds (Turner 2002). Wescott says of '*traditional* camping':

> The heritage of camping was founded on the ability to be self-reliant and live with the outdoors on its terms. Equipment was simple, could be made at home, and was not based upon highly sophisticated technology. (Wescott 2000b, p.4)

In surveying this literature, it becomes clear that woodcraft is a tradition based upon the methods used by early pioneers and frontiersman; it engendered skilled-knowledge that was essentially that of indigenous cultures made 'more efficient' by modification using European technology. Thus, while camping meant recreational trips to easily accessed locations that could be enjoyed by those with a limited outdoor knowledge and experience, 'woodcraft' represented a set of *skills*, combined with extensive woods knowledge or lore, which allowed one to live and travel, for extended periods, in trackless wilderness. Horace Kephart, in his influential *Camping and Woodcraft*, provides an instructive definition:

> Woodcraft may be defined as the art of finding one's way in the wilderness and getting along well by utilizing Nature's storehouse. When we say that Daniel Boone, for example, was a master woodsman, we mean that he could confidently enter an unmapped wilderness, with no outfit but what was carried by his horse, his canoe, or on his own back, and with the intention of a protracted stay; that he could find his way through the dense forest without man-made marks to guide him; that he knew the habits and properties of trees and plants, and the ways of fish and game; that he was a good trailer and a good shot; that he could dress game and cure peltry, cook wholesome meals over an open fire, build adequate shelter against wind and rain, and keep himself warm through the bitter nights of winter – in short, that he knew how to utilize the gifts of Nature, and could bide comfortably in the wilderness without help from the outside (Kephart 1906, p.xi).

The idea of minimising technology while maximising technique is apparent at the heart of the woodcraft ethic so that, in Kephart's definition, it is the use of the 'gifts of Nature' that enables him to 'abide comfortably in the wilderness … without help from the outside' (Kephart 1906, p. xi). The explorer/trapper woodcraft ethic therefore moves away from the idea of being attached to the military or other institutional 'supply line' and, indeed, aims to achieve

independence from the urban, industrial, scientific, high-tech, civilised, metropolitan centre.

Woodcraft did not entirely reject technology, but it is significant that writers of the woodcraft period did not emphasise equipment either. Rather, it was the various skills and techniques of outdoor living that were centrally significant. Moreover, the American woodcraft movement can best be characterised by a particular 'style' of material culture, which, blended European and indigenous technologies where it was most pragmatic to do so: red and black checked woollen shirts, moose hide moccasins, canvas Duluth packs, wooden/bark canoes, canvas tents, bannock bread, Hudson's Bay blankets, cast iron 'Dutch ovens', wooden/babish snowshoes, sheath knives, bucksaws and axes. Because some of these artefacts have a historical significance beyond their practical application – being outdated technology – one of the questions this raises is how far such practice is historical re-enactment or fantasy and how far it is a practical part of outdoor living – in other words, where does authenticity reside?

3.2.5 Camping, backpacking and outdoor adventure

The period between 1890 and 1930 also coincided with the period when the American frontier was disolving and technology was enabling the wilderness to become a place of recreation. Thus woodcraft became transformed from a necessary activity into a recreational one and, accordingly, the 'golden age' of recreational camping and woodcraft began to develop into a coherent lifestyle and ethic in America (Turner 2002; Wescott 2000a). Recreational campers in America took their inspiration from two stereotypes – the itinerant frontiersman and the settling backwoodsman/pioneer – both of whom practiced the art of woodcraft. With the influx of recreational campers into the woods and wilderness, the woodcraft knowledge of the frontiersman and backwoodsman became commercially valuable to those seeking a guide to enable and instruct their adventurous and restorative experiences in the wilds (Turner 2002; Wescott 2000b). Backwoodsmen began to meet the metropolitan public to demonstrate and teach their skills of frontier scouting and woodcraft. This commodified the woodcraft skills of the American backwoodsman who, alongside their services as wilderness guides, began to establish outfitters, dude ranches and Wild West

extravaganzas. Moreover, these public demonstrations of the skills of the wild frontier, in the form of entertainment, formed a conduit through which these anachronisms became passed on to the recreation-seeking public and eventually into popular sports and skills for camp-life (Wescott 2000b). However, the rise in popularity of, and accessibility to, wilderness at the turn of the twentieth century prompted concern about its ruination in the wake of road-building, automobiles and trains (Turner 2002).

In arguing for wilderness preservation, Aldo Leopold (1925, p.401) asserted that wilderness had become as necessary an article of the American identity, which he equates to inner qualities of 'vigorous individualism', 'individual curiosity bent to practical ends', 'lack of subservience to stiff social forms' and 'an intolerance of drones'. All of these he conceives as being built into American citizenship and institutions, again, reflecting an ideology linking active masculine individualism and the development (individual and societal) of inner characteristics, to 'wilderness' in contrast to an emasculated, passive 'urban'. Furthermore, Leopold emphasises the importance of a particular style of American recreational use of wilderness, that is the 'pack trip' which he contrasts with what he considers the controlled and staged European experience of nature – a glorified elaborate 'picnic'. Leopold advocated leaving the urban behind by reducing it to the minimum material culture that could be contained in a pack, itself an emblem of rugged masculinity. For Leopold, wilderness was a stage-set for rustic sports that promised to foster a self-sufficient, intimate knowledge of nature and the accordingly virile character of the American man. In this way, masculinity, freedom, wilderness and the skills for self-reliant wilderness travel – accentuated by the 'pack trip' – become core notions embedded in woodcraft practice.

James Morton Turner (2002), in his paper 'From Woodcraft to "Leave No Trace"', describes how the end of the 'golden age of camping', which drew to a close around the 1930s, marked a significant divergence away from woodcraft and the beginning of a new era of technology and wilderness accessibility along with the rise of the preservation and conservation ethic and the creation of National Parks. Outdoor equipment became technically more advanced, making it lighter and stronger. Modern commercially produced camping stoves and fuels replaced the axe and the wood-fuelled campfires; nylon tents replaced canvas

sheets and lean-to shelters (Turner 2002). Polymers replaced natural fibres (that needed less care) and camping transitioned from car-packable to back-packable, significantly increasingly access to 'wild' places (Turner 2002). Commercialisation soon followed and, by the 1960s, the commodification of back-packing and camping equipment began in earnest, buttressed by the growing popularity of wilderness sports such as rock climbing, kayaking and mountaineering.

As Turner (2002) points out, a myriad of specialised gadgets, and hiking manuals on how to use the new technologies, began to appear. These new manuals provided the novice backpacker with crucial guidance on what to carry, how to carry it, where to purchase, how and what to eat and what to cook on and in (Turner 2002). Thus, the focus moved from the simple tools combined with skilled practices of woodcraft to reliance on commoditised gadgets and gear. Paradoxically, at the same time as backpackers were pouring into the wilderness in unprecedented numbers, leaving behind the technological trappings of modernity, a new ethic emerged of 'Leave No Trace' (LNT). This re-enforced the hands-off approach and experiences of the wilderness hiker who was now forced to use this new technology in order to 'walk more lightly' in wilderness.

This combination of LNT, technological advancement and commodification, alienated backpackers further from the very natural world they sought (Conover and Conover 2006; Turner 2002). Crucially, the LNT ethic required that backpackers learn technology at the expense of developing technique: 'Replacing camp-fires with stoves, twine with plastic fasteners, or a lean-to with a tent all diminished the wilderness travellers' immediate knowledge of the land around them' (Turner 2002, p.474). Aldo Leopold foresaw the emerging trend in *A Sand Country Almanac* 'A gadget industry pads the bumps against nature-in-the-raw; woodcraft becomes the art of using gadgets' (1949, p.166). Thus, bedding down for the night no longer required the skills to carefully select a shelter site and gather moss or fir boughs to make a comfortable place to sleep, rather, the new campers were attached to an umbilical cord of technological gear that replaced the knowledge of making fires with lighting a stove, of building a make-shift lean-to shelter with knowledge of operating the new backpacking technology – to pitch a tent, to purify water using a purification filter device rather than boiling it in a pot over a fire (Turner 2002; Wescott

2000b). Therefore, 'lighting a stove or pitching a storm-worthy tent required new skills, but these skills did not promote the same hands-on knowledge of nature celebrated in the woodcraft handbooks or the early Boy Scout manuals' (Turner 2002, p.474). Instead, the modern minimal impact wilderness ethic changed the dynamics of wilderness travel and emphasised an aesthetic appreciation of wilderness rather than a functional, skilled relationship with woodcraft. 'Long hikes, temporary camps, and an effort to leave no trace increasingly made backpackers transients in the wilderness landscape, observing, appreciating, visiting, but above all else, leaving wilderness unchanged' (Turner 2002, p.474). This historical strand of wilderness hiking eventually became a central assumption in contemporary outdoors education whose roots belong, not in what Turner (2002, p. 462), following Leopold (1925), terms 'a working knowledge of the land' but rather in commercialisation, hands-off conservation, technological innovation for wilderness recreation, sports and athleticism. The divergence away from woodcraft and towards the modern paradigm in outdoor adventure recreation is ideologically located within a militaristic and 'algorithmic'[10] paradigm for character development through imperial attitudes of conquest (Loynes 2002, p. 3). A guiding narrative in Outdoor Adventure Recreation (OAR) and Outdoor Education (OE) therefore involves pitting oneself against nature's elements in order to overcome the challenges.

3.3 The frontiersman and the imperial scout

3.3.1 Baden-Powell and the development of 'scouting' in South Africa

By the 1870s, Africa was the latest British frontier and considered *the* place to explore. The search for the source of the Nile became a symbol of European civilisation's quest for supremacy over nature, as were the wanderings of David Livingstone, the conflicts with the hostile Matabele and the exploits of big-game hunters who were shipping back wildlife heads and skins 'from the savannas and

[10] Loynes (2002, p. 2) borrows the term 'algorithmic' from Ringer (1999) to critique a paradigm in outdoor education that is characterised by terms such as 'processing', 'sequencing', 'outcomes', 'task' and 'leader'. An algorithmic paradigm describes a programmable, formulaic approach that is influenced by the positivist scientific paradigm (Loynes 2002, p. 4). It is recognized in OE that an algorithmic approach is one that can be '"plugged in" to a particular problem and deliver a solution' (Loynes 2002, p.4), that is, 'Programmes have pre-determined outcomes which are measured' (Loynes 2002, p.2).

jungles of Africa as proof of their prowess and an enactment of imperial conquest' (MacDonald 1993, p.48). While the American frontier was closing and the 'golden age of camping' opening, the Boer Wars on the South African Frontier held the allure of new adventure for American frontier scouts and 'Indian trackers' such as Frederick Burnham and Fredrick Selous (Burnham c.1926). As MacDonald (1993, p.64) points out, 'If imperial scouting had its golden age it was surely in Matabeleland, for it was here in the 1890s that the two most famous scouts of the Empire made their reputations, and it was here that the mystique of the imperial frontier reached its height'.

The American Frontier Scout and Indian Tracker. Burnham (c.1926, p.12), who had previously been a military 'scout'[11] and 'Indian tracker'[12] on the American frontier during the Apache and Cheyenne wars, learned his scout-craft from several old-timers who had worked under Kit Carson and General George Crook. One, named as 'Hunkey-Dorey' Holmes, provided Burnham with his most 'definite instruction in scouting' (Burnham c.1926, p.12). They met on the Arizona frontier and Holmes, advanced in age and physically impaired, having lost all his family during the Indian wars, wanted to impart his knowledge before he died. This oral transmission, founded in real-life practice in wilderness locations, is markedly different from the instructional manuals associated with wilderness survival, fieldcraft and hiking. It continues to be typical of contemporary bushcraft education. Burnham and Holmes travelled together

[11] The word 'scout', defined as 'One sent out ahead of the main force in order to reconnoiter the position and movements of the enemy' is derived from the Old French word *escouter* (Modern French *écouter*) meaning to listen, originally from the Latin *auscult*, meaning the same (OED Online 2015f).

[12] While the practice of tracking game was common to both European colonisers and native Americans, the idea of an 'Indian tracker' as a distinct entity appears to be a European import, reflecting colonisers' unfamiliarity with the landscape, its game, its affordances for movement, and its people. As Paul Nadasdy points out, 'Euro-North Americans have deeply ingrained ideas about what it means to hunt (socially, ecologically, morally and existentially) – ideas that derive from a long tradition of hunting in Europe and its former colonies … But Euro-North American and Aboriginal hunting are not so easily compared. … To put it simply, for First Nations peoples living in the Arctic and Subarctic, hunting is synonomous with life itself.' (Nadasdy 2003, p. 63). Abstracting one aspect of hunting – tracking – and utilizing its indigenous experts for military or commercial purposes has obvious political implications, reflecting a subordination of First Nations people and traditional ecological knowledge, that was later romanticized by Hollywood. The term 'Indian trackers' seems to have metamorphosed from meaning 'First Nations who track on behalf of colonisers' to 'colonisers who have learned to track as well as, or from, First Nations' – such as Fennimore Cooper's Natty Bumppo – and eventually to 'frontiersmen who were trained to hunt and track down 'Indians', particularly during the Apache and Cheyenne wars'.

throughout the American Southwest and northern Mexico, and Holmes taught him many scouting skills such as how to track a trail, how to double and cover one's own trail, how to properly ascend and descend precipices and how to tell the time at night (Burnham c.1926, pp.12–13). Burnham also learned survival skills from Holmes such as where to find water in the desert, how to protect himself from snakes and what to do in case of forest fires or floods. A stickler for detail, Holmes impressed on him that even in the simplest things there was a right and a wrong way such as when braiding a rope, tying a knot or putting on or taking off a saddle (Burnham c.1926). Burnham laments that the memory of such old pioneers continues only in the most heroic and dramatic events in their careers and yet he says, 'it would be of real interest and importance to us to recall their methods of meeting their problems as they arose day after day and the deep romantic and philosophical ideals wherein they entrenched their hearts' (Burnham c.1926, p.13). His concern is for what expert scouts knew and thought, rather than just the memorable events their skill facilitated.

Burnham also travelled with another of General Crook's scouts who is only named as Lee. Lee attributed his successes in tracking Apache Indians to his intimate knowledge of their 'mode of life' (Burnham c.1926, p.14) so that, for example, he studied the air currents that sweep through the canyons in order to discover the remains and direction of the scent of smoke from the Indian practice of burning mescal. Burnham says, 'As a scout, I needed my five senses and every faculty of my mind at highest efficiency at all times' and he continues that, 'the senses and actions of every animal, bird, and insect, if studied, can be made to pay tribute to our store of human knowledge, and our own rather dull wits can be wonderfully informed' (Burnham c.1926, p.17). These vignettes expose the detail of environmental knowledge and knowledge of his enemy that a scout would be expected to aspire to and Burnham suggested that 'a volume could be written on the training of [a] scout' (Burnham c.1926, p.17). Eventually, Burnham would meet, mentor and deeply inspire the man who would write such a volume on scouting – Robert Baden-Powell.

The Imperial Scout. Burnham encountered Baden-Powell during the second Boer War. Burnham's frontiersman tricks, agility and scouting habits were regularly confirmed during sorties against the Ndebele and greatly inspired Baden-Powell with whome he would have a lively correspondence spanning four decades

(MacDonald 1993). Indeed, it was Burnham who suggested to Baden-Powell that during peacetime a corps of scouts should be trained; 'it would be a good investment for the government to school them as First Class Scouts and send them to every part of the earth' (van Wyke 2003, p. 394). During their correspondences Baden-Powell would press Burnham for 'details of American frontier lore, of tracking and trailing, of sign language, of what kit and gear to carry' (van Wyke, 2003, p. 394). The combination of Baden-Powells thirst for outdoor skills and knowledge anjd Burnhams desire to see an'elite cadre of military scouts' was behind the eventual formulation of the Boy Scouts (van Wyke 2003, p. 394). Throughout the Matebele Campaign of 1896 Burnham was appointed chief of scouts to the commander of the Imperial Relief Force, which formed part of a wider network of irregular troops who went on raids against the Ndebele and on intelligence gathering reconnaissance (MacDonald 1993, p.67). These adventurous and heroic events were of great interest to the British press who depicted the brave and rugged irregular troops of the Field Force riding out to hunt the dangerous, 'savage' Matebele, dressed in their distinctive Stetson hats and bandoleers (MacDonald 1993, p.68). Baden-Powell sent sketches back to newspapers in England, picturing Burnham in heroic action.

Baden-Powell also learned scouting and frontier skills from the famous imperial big-game hunter, explorer and frontiersman Captain Frederick Selous, who also fought in the second Matebele War alongside Burnham and Baden-Powell. Selous was a notable, influential and much admired figure with a close connection to both Cecil Rhodes and Theodore Roosevelt. Eventually Selous became the inspiration for Rider Haggard's character Allan Quatermain. Baden-Powell learned much of his scouting skills from both Selous and Burnham and in particular acquired much of his 'spooring' or tracking skills from regular sorties with Jan Grootboom[13] in the Matopos hills (MacDonald 1993, p.69; Baden-Powell 1915, p. 33). Here he learned the subtleties of studying his enemy, of natural camouflage and of observation and deduction which were the core skills of successful scouting: 'a few grains of displaced sand here, some bent blades of grass there, a leaf foreign to this bit of country…the impress of a raindrop on spoor…' (Baden-Powell 1900, p.4).

[13] Baden-Powell claimed that Jan Grootboom was 'a Zulu by birth' who had 'lived much with white men'. as a hunter and a guide (Baden-Powell 1915, p. 32).

Imperial scouts became widely esteemed for their frontier skills, in both military circles and in the public domain. By the end of the nineteenth century many mounted irregular troops across the Empire began to refer to themselves as scouts; for example Major Sam Steele's recruits in the Canadian North West Mounted Police became known as 'Steele's Scouts' (MacDonald 1993, p.75). Steele handpicked his scouts, proclaiming the United States cowboy to be the most accomplished scout and one who takes easily to military life. 'Cowboy Corps' became the 'Rough Riders' made famous by Theodore Roosevelt, with William Cody himself offering to lead the cavalry into the Spanish-American War. Nonetheless, following the heroism and exploits of the frontiersmen Burnham, Selous and Baden-Powell, and the eventual successes of the Boer wars, a feeling surfaced in the British press that the English would make the best scouts (MacDonald 1993). Accordingly Baden-Powell enthusiastically writes that 'We English have the talent of woodcraft and the spirit of adventure and independence already inborn in our blood to an extent that no other nationality can lay claim, and therefore among our soldiers we ought to find the best material in the world for scouts' (Baden-Powell, R.S.S. 1897, p.121). The frontier essence of woodcraft and all it represented for Americans was now within the grasp of the Englishman: 'They had the real stuff, they too could be men' (MacDonald 1993, p.70).

3.3.2 The invention of the 'frontiersman' and the cult of masculinity.

Despite the brutality and harsh conditions of 'the frontier' regions, in the early twentieth century the frontiersman came to represent a range of powerful and romantic ideas within popular imaginings and literature. Canada became identified with trappers and 'voyageurs' and, eventually, with the North West Mounted Police. Australia was identified with 'the bush' and Bushmen – explorers, ranchers and stockmen – who became romantic figures associated with hardiness, democratic spirit, mateship and resourcefulness (Minahan 2012). Africa was typified by the adventures of explorers, big-game hunters and prospectors, while America was characterised by its frontiersmen, the pioneer, Indian scout or cowboy, all embodied in the guise of the 'adventurer', with a general uniform of a Stetson hat and a cowboy neckerchief (MacDonald 1993, p.32).

Thus, by the beginning of the twentieth century the trope of the frontiersman in America was powerfully representative of masculine fantasy and brotherhood and, consequently, he and his scouting and hunting abilities in the woods were reproduced in various guises throughout popular American culture (MacDonald 1993, p.40). As MacDonald suggests, behind the popular image of the scout lurked the literary archetypes – Natty Bumppo and Chingachgook. So, 'The perfect scout was an Indian, a "child of nature," a savage' and 'Chingachgook's refined senses, his persistence and courage, his powers of endurance were nothing besides his "natural" instinctual gifts' (MacDonald 1993, p.74). The colonial explorer's journal, especially that of Samuel Hearne and his relationship with Matonabbee, predates the wholly fictitious literary inventions of Bumppo and Chingachgook, but a literary pedigree in the public consciousness ensured that the scout became a colourful figure in popular culture.

In 1869, the lone hero scout resurfaced in the form of Buffalo Bill Cody who became the character of countless stories, novels, plays and newspaper articles that lay somewhere between fact and fantasy. The writer who 'produced', and arguably 'invented', Buffalo Bill went by the name of 'Ned Buntline' and created a legend of the self-publicist of Nebraska William Cody (Buffalo Bill), who went on to star in his own plays and Wild West shows that were launched in 1883. With his circus, Cody and his attendant cowboys and Indians (even Sitting Bull made an appearance) reinvented the frontier, demonstrating to all who looked on that Darwinian theories were at work on the frontier where only the fittest survived – 'a lesson for the effeminate products of civilization' (MacDonald 1993, p.42). This fantasy mass-entertainment, drew on a limited repertoire of stereotyped skills – riding, roping, shooting – and was removed from a real-life context and experienced physically only by the performers not the spectators. As such, it may represent the precursor to the similarly fantasised elimination game-shows and set-piece 'adventures' that comprise today's genre of survival television.

3.3.3 Colonial-craft and 'The Legion of Frontiersmen' in the pre-war years, 1904-14.

'There is no more striking example of the imperial development of the frontier myth than the volunteer organization that was started by Roger Pocock in 1905

called “The Legion of Frontiersmen”’ (MacDonald 1993, p.54). The Legion of Frontiersmen was a paramilitary group that thought of itself as a corps of scouts, pioneers, cowboys and guides, roughriders trained by the rigours of the frontiers of empire who held themselves ready for military service if called upon by the state. Prompted by fears of an impending invasion of Britain and the Empire, the organisation was founded as a field intelligence corps based upon a romanticised conception of the ‘frontier’ and imperial idealism. Headquartered in London, branches of the Legion were formed throughout the empire to prepare patriots for war and to foster vigilance in peacetime (Humphries 2012). Despite persistent efforts, the Legion never achieved much official recognition and is absent from most of the literature on pre-First World War imperial history. Perhaps this is because it was not recognised in the 1907 Territorial and Reserve Forces Act. This Act amalgamated the civilian Volunteer Force – founded in 1859 – with similar para-military groups, known collectively as the ‘Yeomanry’ to form what is now the British Army Reserve.

Although the Legion of Frontiersmen is generally considered a curiosity and has largely remained insignificant in military and frontier history, it has particular significance for the history of modern bushcraft. It was the first group that deliberately associated the skills of the frontiersman – woodcraft and scouting together – with irregular warfare, as a particular category of knowledge and skilled practice. This new category was described by the Legion as ‘bush craft’ and ‘colonial craft’. MacDonald (1993, p.54) likens the Legion to ‘a peculiar adult version of the Boy Scouts’ and, indeed, the subjects covered in its pocket book bore close resemblance to those important to the Boy Scouts. Most of its early members were ex-colleagues and friends of Pocock, many of whom had served in the Boer Wars, the India Campaigns or on the frontiers of America, Canada or Australia. In 1909 Pocock published *The Frontiersman’s Pocket-Book* compiled and edited ‘on behalf of The Legion of Frontiersmen’. The book drew together over 60 contributors and served as the Legion’s instruction manual, detailing many of the survival skills required in the frontier regions of the British colonies and described by Pocock’s biographer (an unrelated Pocock) as ‘a virtual guerrilla warfare manual for Edwardian times’ (Humphries 2012, p. 147; Pocock 2007, p. 60). In its preface Pocock describes the Legion’s purpose and character:

> The Legion of Frontiersmen is a civilian, self-supporting and self-governing Association, officially recognized in the United Kingdom, Canada, Australia, South and East Africa, and Bombay, as a means of securing for the service of the State men of good character, who have been trained in wild countries, at sea, or in war. The Council registers such men in view of their individual usefulness to a field force, as guides, scouts, craftsmen, and irregular mounted rifles. (Pocock 1909, p.v)

Notable contributors included Fred Selous, the African big game hunter; Sam Steele of the Royal North West Mounted Police; writer Richard Edgar Wallace; the adventure novelist, Sir Henry Rider Haggard; wilderness author, Stuart Edward White; the biologist and statistician, Frances Galton; W.D. Ffrench and Capt. C. Morgan; and both Ernest Thompson Seton and Baden-Powell. The Legion is also said to have attracted supporters such as Conan Doyle and Theodore Roosevelt (MacDonald 1993, p.57). It perpetuated the idea that the Frontiersman was a special kind of soldier whose rugged life of individualism, wilderness reconnaissance and combat had rendered him unsuitable for the parade ground (MacDonald 1993). Rather, the wildness of frontier life had shaped him for more arduous and challenging duties, requiring the ability to rove deep and long into the woods and wildernesses of the frontier and remain there, self-sufficient.

These skills were not easily reproduced; it was expected that a Frontiersman's character was shaped by the wilderness conditions of the frontier itself rather than by any formal training (MacDonald 1993, p.57). Thus, echoing the ideas first set out in Frederick Jackson Turner's *Frontier Thesis* (Steiner 1995), Theodore Roosevelt asserted that 'as the frontiersman conquered and transformed the wilderness, so the wilderness in its turn created and preserved the type who overcame it' (cited in MacDonald 1993, p.39). This highlights an important contrast between learning as a result of being in direct contact with the natural world – the frontiersman's strenuous life – and learning from the instructional manuals and acontextual training for survival in a future, hypothetical wilderness, given to pilots of the First and Second World Wars.

The Frontiersman's Pocket-Book, brought together the skills and woodcraft of the American and Indian scout and field craft and scouting for military combat as a unitary body of knowledge, best defined as 'colonial craft'. Its subject matter, layout, style and approach match the organisation of

contemporary bushcraft manuals, anticipating the development of modern bushcraft. In addition, the occupations and experience of the many contributors – for example, prospectors, cowboys, mounted police, explorers, soldiers, horse-breakers, hunters, marksmen, stock-whip experts, naturalists and guides – closely corresponds to the stereotypes that appeal to bushcraft practitioners today. This, in turn, suggests that the little-known *Pocket-Book* may reflect some dominant aspects of contemporary bushcraft practice, strongly suggesting its significance as a confluence of ideas: the values that underpin it and its orientation towards frontier masculinity, indigenous knowledge and irregular fighting tactics. The *Pocket-Book* also provides the first elaboration (that I have been able to find) of 'bush craft' in a context cognate to today's practice:

> For legion purposes a scout is a man trained in lone self-reliance, and the arts of reading country, tracking, hunting and *bush craft*, who has had experience in dealing with dangerous folk, whose fully developed powers of observation have been tested by intelligence work…there are extremely few of such scouts. (Pocock 1909, p.252, emphasis added)

3.3.4 The instructional school for 'Colonial Craft'

Significantly, the Legion also formed its own training wing: 'The Imperial School of Colonial Instruction', based at Shepperton, Middlesex. It was here that 'all branches of *colonial craft* [were] taught by experienced and practical colonial instructors' (my emphasis). On the inside cover of the Legion of Frontiersmen's *Pocket-Book* (Pocock 1909) appears an advertisement for the School (Figure 3.1), which was conducted by Captain Morgan and Mr. E. Ffrench (both Boer War veterans and Legion men). The School was the first, then, to formalise skills into subjects suitable for transmission in the form of instructional training for adults – skills learned from the frontier subcultures, containing indigenous practices adopted and hybridised with European technology. Developed by frontiersmen for use in the colonies, civilians could now receive practical hands-on training in skills relevant to travellers, settlers, adventurers and even recreational campers. As stated in the advertisement, the School was very much 'the first in the field'. At the same time, it is important to distinguish between education experienced in context on the land that shaped the frontiersmen and their precursors, and the instruction given in Middlesex to deal with a future 'wilderness' that might be in any of the Empire's diverse biomes, from the sub-Arctic to desert regions.

The Legion was active at the same time that Seton and Baden-Powell were independently developing the principles of the first youth movements based on the conditions of frontier life. But, while the *Pocket-Book* provided a comprehensive manual for the challenges of life in the wilderness and for effective guerrilla warfare, hitherto there had been little scope for the frontiersman to use these talents during peacetime in a civilised society (Humphries 2012, p.147). However, the frontiersman and all that he symbolised provided an ideal model for the instruction of boys, since its pedigree stretched back through a variety of romantic masculine types popularised by the novels and verse of Kipling, Service, Cooper and Buchan. These images were powerful and free from the real world of commerce or domestic responsibility: they engaged the imagination, suggesting unrealised potential and forming a space for personal exploration. To the founders of the boys' movements, both the physical and imaginative locations of action were the outdoors, nature or wilderness; MacDonald (1993, p.61) suggests that these spaces provided a safe retreat from the effeminate influences of civilisation and the equally enfeebling presence of the feminine, so that 'in the woods they could then become real men'.

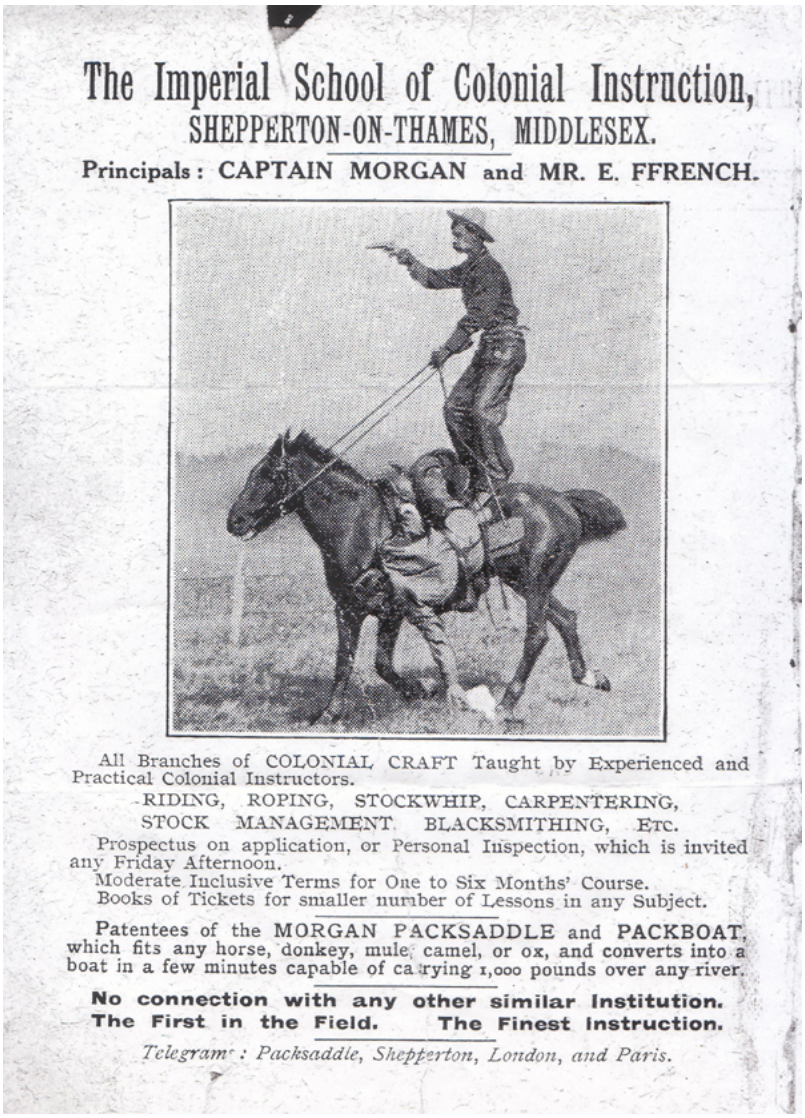

Figure 3.1: Advertisement for 'The Imperial School of Colonial Craft' as it appears on the inside cover of the Frontiersman's Pocket-Book by Roger Pocock, published in 1909.

The frontiersman was thus portrayed as living in a boy's world, free from urbanised adult concerns, negotiating self-sufficiency in a generic 'wilderness' that was both nurturing and challenging. Moreover, rather than the notion of the 'lone scout', the Legion represented a brotherhood similar to that of the 'knights of old'. This ethos of comradeship was about to be enacted around every Boy Scout campfire.

3.4 Woodcraft skills for youth education

The mythologised reality of the imperial frontier provided the conditions for the emergence of youth movements such as the Boy Scouts, which represented one

way in which woodcraft skills became institutionalised in the first decade of the twentieth century. This coincided with another transformation: the repurposing of woodcraft, scouting and exploring knowledge from militaristic colonial frontier practices for reconnaissance and intelligence gathering into a peace-time practice for rehabilitating, invigorating and educating youth. Knowledge of woodcraft became part of the instructional development of youth, appropriate for character building and 'good citizenship' – for the benefit of society. In this way, from the beginning of the twentieth century, the skills of woodcraft and scouting were reconfigured into what might be broadly considered educational and remedial practices, with manuals for instruction and involving teachers and learners. Initially aimed primarily at boys, the youth movements shared the common aspiration of using woodcraft and nature to engage youths and develop desired masculine qualities such as athleticism, resourcefulness and independence.

In 1902 Ernest Thompson Seton founded the 'Woodcraft Indians' as an educational youth movement that sought to use 'woodcraft' to realise that '*manhood, not scholarship*, is the first aim of education' (Seton 1912b, p.5, original emphasis). In 1906 he wrote *The Birch-Bark Roll of the Woodcraft Indians*, which outlined his aims in more detail: 'My foundation thought was to discover, preserve, develop and diffuse the culture of the Redman' (cited in Morris 1970, p.187). Thus, drawing from the values of the Native American, through a multitude of sources, Seton creates his Indians, 'eventually wrapping them into something he called woodcraft – achieving harmony with nature and learning to exist within it as the Indians had, unleashing youthful imagination through play' (Scott and Murphy 2010, p.40). Unlike traditionally structured schools disconnected from nature, Seton believed his movement could break social barriers and establish in young minds 'a finer kind of humanity, a real understanding that the important thing is the association of the human spirit' (Scott and Murphy 2010, p.40). Ahead of his time, Seton asserted that:

> If the young people of this nation can be so trained that they look upon Nature with eager interest, if they become familiar with her traditions, her kindness, her discipline, her beauty, her tragedies, they will find themselves held together by a bond of sympathy that no superficial social structure can ever obliterate. (Scott and Murphy 2010, p.40)

Thus Seton's ideas were strongly ecological, humanistic and educational and held, at their centre, the enactment of pragmatic woodcraft skills.

Other youth movements in the early twentieth century increased the significance of woodcraft for youth education, such as John 'White Fox' Hargrave's the 'Kibbo Kift', Leslie Paul and the 'Woodcraft Folk' and, of course, Baden-Powell's Boy Scouts. All of these combined eclectic elements of militarism and para-military groups, camping, handicraft, woodcraft, nature movements, naturalism, sociology, psychology, educational theory and anthropology. Their political and ideological stances were inflected differently but they all shared fundamental assumptions about the benefits of spiritual growth and personal development from connecting nature, society and the individual through handicraft and rugged activities in wild nature. Seton's approach was, in essence, strongly ecological; it was a nature-movement in which he promoted interest in recreation, self-governance, wildlife, conservation and good fellowship, as ends in themselves (Morris 1970, p.187). This was quite different from the militaristic approach of Baden-Powell who introduced the discipline of the British military and regarded woodcraft only as a means to an end – with the end being that of patriotic empire building (Morris 1996, p. 65; Morris 1970, p. 187). However, while Seton's ideas were both romantic and primitivistic, they were also firmly embedded in the naturalist tradition.

Seton used indigenousness (in the form of the American Indian) both as a guiding symbol of relationality between man and nature and as a practical skill-base from which to learn and enact, practically and imaginatively. In this way, Seton also became identified as one of the earliest environmentalists. His ideals were almost an antithesis of the equally romanticised ideal type promoted by Baden-Powell, that of the backwoodsman or the pioneer who civilised wild country for the colonial project of empire building; the imperial scout, in particular, was the most prominent type in Baden-Powell's Boy Scout formulation (Morris 1970, p.188). As Morris puts it (1996, p.65):

> [Baden-Powell's] model for the Scouts was colonial – the Whiteman who was the precursor and forerunner of capitalism. This ideal is apparent in all his [Baden-Powell's] writings, and the sort of man B-P himself was and advocated can be seen embodied in this type – a muscular Christianity, a distrust of intellectuals, and an emphasis on self abnegation and stoicism with the availed virtues of pluck, self-reliance, endurance and duty. (Morris 1996, pp.65-66)

Seton sent a copy of the *Birch-Bark Roll* to Baden-Powell who had first set out his idea for a youth training movement in a letter to Eton College, published in the Eton College *Chronicle*. Baden-Powell's focus was on summoning boys, in particular those of the working classes, 'to help defend the country by force of arms against the threat of invasion' (Rosenthal 1980, p.607). Apart from outlining four practical activities for training – shooting with miniature rifles, judging distance, scouting and skirmish/take cover drills – Baden-Powell had little more to say at this time than to 'equip boys with the skills of fighting and the relevant patriotic fervor' (Rosenthal 1980, p.612). Baden-Powell's ideals, as expressed in the Eton scheme, were far less concerned with 'the issue of good citizenship, than … with the far narrower problems of conferring some minimal soldierly competence on the youth of Britain' (Rosenthal 1980, p.615). In short, Baden-Powell took Seton's coherent structure and organisational ideas and turned them towards military training, replacing Seton's references to Red Indians with the militarised symbols of the knights of old and the imperial scout (Rosenthal 1980; Morris 1970). The Boy Scouts focused on Baden-Powell's love of scouting – of stealth, observation, memory (such as Kim's Game, from the eponymous hero of Kipling's novel), man-tracking (more than wildlife tracking), camp routines and fieldcraft – all contextualised within a militaristic culture of salutes, oaths, a hierarchy of leaders and a uniform closely resembling the Stetson hats, neckerchiefs and bandoliers of the imperial scouts in Africa.

3.5 Indigenous knowledge, ethnography and survival skills

Throughout the twentieth century the ability to survive in remote areas with little or no technology remained an important concern for British and American militaries. Indeed, new needs developed such as survival-training manuals for pilots whose aircraft might be 'downed' in remote unfamiliar regions; these men would need to know how to live from available natural resources until rescue or self-rescue was achieved. This period saw the invention of the military 'survival manual'. These manuals were based firmly on knowledge drawn from indigenous peoples of particular regions. They drew upon the documentation of ethnographers and anthropologists who were employed or especially assigned by various militaries to translate the knowledge of the indigenous peoples they

studied for military guides; the information went into manuals that imparted local skills and techniques necessary to 'survive' in remote areas, alongside western techno-based survival knowledge.

The frontier conditions that had produced woodcraft, scouting and the youth movements, all typified by the 'colonial craft' of the Legion of Frontiersmen, was transformed once more with the arrival of the First World War. The meaning of the word 'scout' shifted with the advent of trench warfare. The static nature of the trenches, the machine gun instead of the revolver along with barbed wire and artillery made movement virtually impossible. Reconnaissance became airborne and Burnham, Selous and Baden-Powell's type of scouting became an anachronism. In this context, the word 'scout' passed from the adult realm of frontier military operations to become almost entirely associated with Baden-Powell and the Boy Scouts, who first appropriated the 'game' of scouting and then sanitised it. Military scouting largely disappeared and was replaced with elite units such as the commandos or sharpshooters.

With first reconnaissance and then warfare taking to the air, it was recognised that a pilot might be forced to land in any type of unfamiliar environment. Consequently, following WW1 and into WW2 there arose the recognition that pilots especially, but also other mobile military forces, needed to learn how to survive in unfamiliar environments – oceanic, jungle, desert and arctic. This led to the writing of 'field manuals' such as the US army's FM 31-20 Jungle Warfare (US War Department 1941) and 'survival manuals'. For example, *Survival: a manual for aircraft crews forced down in all parts of the world* was produced by the Airlines War Training Institute (1943) and contained instructions for living off the land including information on building shelters, travelling, protection against disease and first aid. At the same time, more publicly available survival manuals also began to appear aimed at civilians, such as Ellsworth Jaeger's *How to Camp Out If You're Bombed Out* (1942).

Perhaps the most influential of the early survival manuals was that written by brothers John and Frank Craighead for the U.S. Navy: *How to Survive on Land and Sea* (United States Navy 1943). It described how downed airmen might live off the land while avoiding capture. In his more recent television programme, 'Extreme Survival', Ray Mears interviews the Craighead brothers and asks how they learned their survival skills ('Desert Island' 2000). They reveal that, 'we

travelled into the jungle and kept notes of the kind of plant foods we found and what we lived on and got a feel for how difficult it would be' ('Desert Island' 2000) Mears concludes that 'survival was a pretty hit and miss affair', effectively depending on the individual's ability to adapt the training he received in the context of the States with no prior tropical experience until he needed it for real ('Desert Island' 2000). However, he continues, 'there are specific skills you need to know, otherwise your chances are slim' ('Desert Island' 2000). Thus, pointing to the importance of specific local skills for particular environments, which are difficult to train for in a dissimilar environment, such as that of America, rather than in tropical jungle. Whereby universal principles are taught rather than local particulars and experience.

Environment-specific manuals were produced throughout the war years and beyond, for example ethnologist Kenneth Pike Emory's 1943 classic *South Sea Lore*, written to accompany his 'Jungle Living' course for the Unit Jungle Training Center based on Hawaii. Emory worked alongside various indigenous groups of the Pacific and Indonesia, documenting their traditional ethnoecological knowledge and techniques. In 1942 the Royal Air Force published *The Jungle Hiker* for survival in Ceylon (now Sri Lanka) and, shortly afterwards, the ethnographer Viljalmur Stefánsson (1944) published his *Arctic Manual*. Stefánsson's book was closely followed by T. N. Freeman's *Manual of Arctic Survival and Useful Eskimo Words* (1950) which further documented the knowledge and skills of Inuit peoples.

In Australia, the term 'bushcraft' in relation to military skills for surviving in 'the bush', becomes prominent during this period, but also begins to cross again into the domain of recreational camping. For the first time the term is included in the titles of many Australian survival manuals such as*: Paddy Pallin's Handbook of Australian Bushcraft* by P. Pallin (1938); *Living Off The Land: a manual of bushcraft, compiled from articles contributed to 'Salt', the army education journal* (Australian Army Education Service 1944); the Australian Army Education Service's *Australian Bushcraft* (c.1943); *Bushcraft; how to live in jungle and bush* by Wontolla (the pen name of Richard Graves) (c.1941); *Camping and Bushcraft in New Zealand for Beginners* by A. P. Harper (1945), *The Ten Bushcraft Books* by Richard Graves (Wontolla) (c.1950) and *Bushcraft Manual* by R.W. Burrell (1968). Subsequent use of the term was much

shaped by these Australian publications, many of which were military in origin or with strong military ties. However, in outlining ways to 'live' in the bush they drew heavily on indigenous Aboriginal knowledge and on recreational camping and woodcraft/bushcraft practices. Thus several histories converge at this point: that of irregular frontier martial activity, recreational camping and woodcraft and ethnography and indigenous knowledge.

In 1948 another comprehensive Australian book, *The Bushman's Handbook* by H.A. Lindsay, was published. It begins by outlining what a 'foolish white man' might do if he became unexpectedly lost in the bush and then continues, at length, to describe in detail the methods, techniques and decisions that an Aboriginal might apply. In outlining all this information, Lindsay not only expresses admiration for Aborigines but also details the subtleties of their ethnoecological knowledge. Once again, an urban/wilderness distinction is made with a preference for the resilience and knowledge of the Aborigine or those skilled in bushcraft rather than the ignorance and fear of the city dweller.

Equally located in a specific ecology, the term for bushcraft also enters South African literature in the 1960s with Colonel D. H Grainger's *Don't Die in the Bundu*[14] (1967), a guide to surviving in the Rhodesian bush. According to Grainger (1967 n.p.), 'this book had its origin in the requirement of the [White] Rhodesian [Security] Forces for a concise book on bushcraft, couched in simple terms'. Grainger asserts that the book is aimed primarily at soldiers, airmen and policemen who are required to go into the bush, but that it is equally valuable for civilian workers such as land surveyors or National Park rangers and also those who visit the bush for hobbyist or recreational purposes. Here, the interest begins to fan out from military use into recreation in line with the increasing popularity of wilderness recreation and adventure travel.

More recently ethnographer Richard Nelson has continued the emphasis on the relationship between indigenous knowledge, ethnography and military

[14] The word *bundu* is defined as 'A remote rural region; the wilds' with a Bantu etymology' (OED Online 2015b). In South Africa, the activity of travelling through remote or rough terrain, especially as a form of leisure pursuit is known as *bundu-bashing*, which is very similar to the Australian neologism *bush-bashing* as a term for bush travel, although this is usually associated with off-road driving.

survival skills with his book, first published in 1973, *Hunters of the Northern Forest: Designs for Survival among the Alaskan Kutchin*:

> This book focuses upon modes of environmental exploitation among one of these land-orientated tribes. It is a study of the knowledge and techniques associated with hunting, fishing, trapping and general survival among the Athapaskan-speaking Kutchin of interior subarctic Alaska. Northern peoples such as the Kutchin have long attracted the attention of anthropologists and explorers because of their ability to live in extreme and marginal environments. (Nelson 1986, p.4)

The study built upon earlier work conducted with the North Alaskan Eskimo in 1964-66 'conceived as a means of obtaining survival information for the use of pilots downed on the Arctic ice' (Nelson 1986, p.5).

3.6 The ecological perspective

In the years following the Second World War concerns surrounding environmental degradation and pollution became an increasingly important political subject (Guha 2000; Mc Neill 2000). In 1962, Rachel Carson's *Silent Spring* warned starkly about the catastrophic impact of polluting capitalist systems on the planets' ecological systems. In a similar vein, the *Doomsday Book* published by Gordon Rattray Taylor in 1970 warned its readers that humans were not going to survive their own fouling of the planet. Thus survivalism went from a military concern to a civilian concern as the public became increasingly aware of new threats. Concern continued to gather momentum and in 1972 alone the following appeared: the Ashby Report to the Secretary of State for the Environment, *Pollution: nuisance or nemesis* (Ashby 1972); *Polluting Britain, a report* (Bugler 1972) and a report from the United Nations Committee on the Human Environment, *Only One Earth; care and maintenance of a small planet* (Ward and Dubos 1972). This latter announced on its back cover that 'Man has been washed up on an island like Robinson Crusoe. How is he to survive?'

A dual concern emerged: the growing recognition of ecological damage on the one hand and ways of responding to it on the other. Responses ranged from strategies for coping with the fear of environmental and social catastrophe brought on by ecological crisis (exemplified by survivalism) through to new ecological sensibilities (for example, James Lovelock's Gaia Theory) that sought

understandings, relationships and solutions to the catastrophic instability of vulnerable global ecological systems. These developments impacted on and shifted perceptions of the relationship between people and nature, leading some to reconsider the presiding paradigm of scientific/technical human dominance over nature. For others, preparation for survival was considered an appropriate response to fear of an anticipated overwhelming ecological crisis. This latter response became expressed by a muscular 'pop-survivalist' discourse that developed through the 1980s; this was illustrated by the fears of 'preppers'[15], namely those who 'prepare' for apocalyptic destruction or collapse of social systems and/or the environment.

A perceived need to prepare for 'survival' was further highlighted by the threat of nuclear attack during the Cold War and notions of what it might mean to have to survive a potential social, economic and environmental catastrophe produced a range of fear-based responses, well-characterised by Robert O'Brien's (1975) post-apocalyptic science fiction novel *Z for Zachariah.* The Home Office published *Protect and Survive* in (1976) providing a strong civilian survivalist narrative. Government-sanctioned survivalist themes are apparent in the instructions about how to build a shelter with natural materials, which are contained in the booklet. Against this backdrop, a proliferation of 'survival schools' surfaced across the UK to teach survival and preparedness to interested civilians. These schools were conducted by ex-special forces and military operatives. Military style survival training gained popularity concurrently with survival narratives which coalesced in popular media – e.g. novels and films such as the militarist *First Blood* (Kotcheff 1982; Morrell 1972) and the dystopian fantasy cult film *Mad Max* (1979). Military survival manuals written for a civilian audience also became highly popular in the UK and were on sale in most camping shops by the 1990s. In particular, John 'Lofty' Wiseman's the *SAS Survival Handbook*, published in 1986, quickly became a best seller.

From the 1980s onwards, fantasy survivalist ideas became increasingly entwined with apocalyptic desires and the ultimate survivalist created an archetypal trope for protagonists - that of the 'tough guy outsider' (Doyle 2012,

[15] 'Prepper' describes those who practice bushcraft or survivalism to prepare for a catastrophic event, either imagined or because they live in an area of geological, political or ecological instability.

p.5) or 'the lone *ubermensch,* succeeding outside social norms, and vanquishing a hostile world' (Playdon 2015, p.3). Thus, in survivalism nature becomes an 'imperiled category' (Doyle 2012, p.2). That is, survivalism arises out of a dislocation from nature and a fear of being overwhelmed by nature, which in turn produces an ideology of control, conquer and domination of nature. Standing at the other extremity of the survivalist narrative, however, is the range of philosophical ideas produced by the deep ecology movement, including notions of pristine wilderness, nature mysticism, earth religions and 'indigenous spiritualties' that seek a reconciliation and relationality with the natural world, often drawing from a practical skills base rooted in the landscape and the life-forms inhabiting it.

3.6.1 'Primitive survival skills'; a land-based, ethnographic approach

In 1967 Larry Dean Olsen published *Outdoor Survival Skills* which, despite its title, moved away from a purely military training style and marked a shift towards what has become known as 'primitive survival skills', 'primitive technology' or 'prim-tech', and eventually 'earth skills' or 'ancestral skills'. Primtive survival skills emerged from a clear ethnographic and archeological influence. Indeed, many of the photographs in Olsen's book *Outdoor Survival Skills* (1967) closely echo photographs taken of Ishi, the last Yahi Indian in Kroeber's *Ishi in Two Worlds* (1961). This illustrates Olsen's early fascination with ethnography as a source of archived knowledge that he sought to rediscover as practice. Furthermore, Olsen's recreation of the techniques and technologies of Ishi would come to represent the bedrock of the primitive skills movement as it developed in America. In some respects, this mimesis could be described as a type of ethnohistorical, ethnographic analogy, which sought to understand how historic material culture such as tools are used and made through examination of their use by analogous extant indigenous peoples, as well as through consultation of ethnohistorical texts and museum collections.

The significance of Ishi to the primitive skills scene was reinforced during my fieldwork in 2011 at the annual primitive skills Rabbitstick gathering in Idaho. David Wescott introduced the gathering by emphasising the significance of Ishi to the primitive skills movement. In interview in 2011, Olsen explained how he became profoundly influenced by ethnographic sources as a teenager, in

particular by *Basin Plateau Aboriginal Sociopolitical Groups* (Steward 1938) and, later, *Ishi in Two Worlds* (Kroeber 1961). Thus, as a boy, 'his unquenchable curiosity in Native American cultures lured him to the great desert wastelands of the Western United States and their ancient inhabitants' where he hiked in remote canyon areas and practiced the skills of living from the land (Anasazi Foundation 2015). In the 1960s Olsen had begun teaching classes in outdoor survival in the Division of Continuing Education at Brigham Young University (BYU) in Provo, Utah, sponsored by the Department of Youth Leadership. His approach to survival, which won wide approval, was based on the idea that survival training is best achieved by learning to live off the land without previously manufactured gear. Olsen's book became a foundational publication and a crucial conduit that brought a land-based skills approach into emerging outdoor education, wilderness therapy and recreation sectors, moving it away from the commodified technology of popular outdoor pursuits. Olsen's website puts it this way:

> Larry emulated the Anasazi or 'Ancient Ones' and carefully replicated the lifestyle of the Primitive Paiutes of the Great Basin Plateau areas of the western United States. Using tools and weapons of stone and bone, digging roots and trapping game, suffering cold nights without bedding, and hot days without water or even shoes, Larry gained a unique understanding of man in harmony with nature. (Anasazi Foundation 2015)

In addition to teaching survival skills, Olsen's courses proved to be a vehicle for helping young people to 'establish lasting values, exercise courage in the face of seemingly insurmountable obstacles, and above all, develop a compassionate respect for human life and its relationship to nature' (Anasazi Foundation 2015). While at BYU, Larry and his staff won a national award for 'Youth Rehabilitation Though Outdoor Survival' based on their original primitive living course for adjudicated youth from the courts in Utah County. This signified the early genesis and emergence of 'wilderness therapy' and the use of land-based skills for remedial practices. Emerging contemporaneously with the development of experimental archaeology, Olsen's approach combined with it to form the 'Society of Primitive Technology' in 1988 to 'promote the practice and teaching of primitive technology':

> …Aboriginal life skills are defined here as those traditional technological skills which primitive peoples of any location, from the equator to the arctic, East to

> West, and of any time period, Paleolithic to post-contact, practiced or are still practicing, in order to perpetuate or to improve the quality of their lives. Generally this definition embraces pre-literate, pre-industrial lifeways, although some such traditional life skills may occasionally be found interwoven with advanced technological societies. (Wilderness Survival Skills 2016)

Here, indigenous knowledge of all kinds is conflated into generic 'aboriginal life skills' of 'primitive peoples', in contrast to 'advanced technological societies'. The terms 'primitive skills' or 'primitive survival' are widely used as a catchall for traditional, indigenous, ancestral, primal and earth-based skills and technologies. The word 'primitive' is problematic, since using the word 'primitive' carries all the implications of inferiority in the context of the colonial gaze; furthermore, its conflation into a collective 'Other' reflects the globalisation and systematisation of Pratt's (2008) commoditised urban discourse. This, in turn, implies an ethically difficult relationship with all types of indigenous knowledge.

The story of Larry Dean Olsen is apposite here. As a boy in the 1950s, he came across a flint knapped arrowhead while digging in his uncle's garden in Idaho. It was archaeological remains that ignited (and continued to ignite) Olsen's passion for what came to be known as 'primitive survival skills'. It was archaeology and old ethnographic description of an earlier, pre-contact and pre-technological way of life that informed his 'rediscovery' of wilderness living skills. Accordingly, his influences continued to be informed by archaeological finds, museum collections and artefacts and the reconstruction of pre-historic living skills. This knowledge was then re-applied, not to static museums or to academic texts, not for purposes of empire of colonialism, but to the fluid, messy, real-life context of an outdoor recreational and outdoor educational programme. A university programme was introduced which aimed to rehabilitate failing students by situating them in the wilderness of Idaho and Utah for a period of up to 40 nights with very little modern equipment to support them. In this sense, then, I suggest that 'primitive' is an unfortunate rather than a pejorative term, perhaps better conveyed in the sense of 'prehistoric' because anyone who has learned to knap stone into an arrowhead knows very well that it is an extremely sophisticated process – not primitive in any sense, intellectually or physically. Thus, 'prehistoric archetypal skills' that remain in contemporary use by many cultures are rediscovered through diffusion from those cultures to urban cultures

in which such skills have become lost knowledge. This raises questions concerning cultural appropriation and authenticity which will be further explored in this thesis and its conclusions.

Nevertheless, at the same time, primitive survival skills also contain facets of romanticised, non-conformist, political ideology, foregrounding ideas of egalitarianism and sustainability:

> People in modern America choose to practice "primitive", also called ancestral or earth-based skills, for a number of reasons. Many oppose the modern lifestyle, are critical of capitalism and civilization and mourn the ways it has disconnected us as humans from the earth. Many recognize that Indigenous ways of being represent a picture of humans living in harmony with nature, a truly sustainable way of life, finding food, shelter, and every other need using local, natural materials obtained from the wild. Primitive skills gatherings attempt to recreate a kind of Indigenous lifestyle by mimicking egalitarian tribal hunter-gatherer cultural relationships, as an alternative to the obviously exploitative practices of modern civilization such as agriculture, mining and extraction, dams, and clearcutting. They argue that we all have Indigenous roots and to reconnect with them is a birthright (Onstolenland 2013).

Where military survival foregrounds short-term living from the land and primitive technology foregrounds skills that were once used to sustain a long term lifestyle, bushcraft's focus tends to fall between the two as an embedded relationship travelling between different ecologies. Bushcraft similarly falls somewhere between military survival's primary focus on technological gadgets and primitive technology's refusal of it. Similarly, where military survival tends towards a highly globalised skill-set and primitive technology tends to be highly localised, bushcraft seeks a more 'nomadic consciousness' (Braidotti 1994) with skills that are both strongly situated and potentially transportable.

3.6.2 Primitive skills and 'indigenous' faux-mysticism[16]

The Primitive survival skills movement drew on outdoor recreation, therapy and education and, in some instances, embraced aspects of mysticism as part of its ideology. However, claims of mystical experience are problematic when an individual bases them on experience that belongs to a culture of which they are not part; when that appropriated experience is used to establish personal

[16] The term "'indigenous' faux-mysticism" is used to distinguish this content from the esoteric branches of world religion on the one hand (Happold 1963; Underhill 1911) and the wide range of spiritual beliefs that form part of indigenous people's cosmologies.

authority; and when the experience is not verifiable from either internal or external sources. Carlos Castenada's Toltec shamanic training by Don Juan Matus offers a famous example of these problems. Such faux-mystical aspects of primitive survival skills are especially evident in association with the practice of animal tracking, scouting and trailing, and can be related to one American individual called Tom Brown Jnr (TBJ).

Author of 21 books, such as *The Tracker: The true story of Tom Brown Jnr*, (1979), and *The Way of the Scout*, (1995), Brown is one of the most established and influential wilderness skills experts globally, claiming to have been taught his bushcraft and tracking skills by a Lipan Apache elder named Stalking Wolf. Like Castenada's, these claims do not appear to be verifiable. On the website of Brown's instructional *Tracker School* he states that 'Stalking Wolf was raised free of the reservations' and was 'part of a band of Lipan Apache that never surrendered' (Tom Brown Jr's Tracker School 2015). Carrying the traditional knowledge of a healer and scout, a vision led the ageing Stalking Wolf to Brown who would become the only person to have ever met him and the sole living recipient of Stalking Wolf's accumulated indigenous knowledge, that is 'not only all that Stalking Wolf had learned during his travels, but the distillation of hundreds of years of Apache culture as well' (Tom Brown Jr.'s Tracker School 2015). It is this knowledge that Brown claims to teach at his Tracker School.

TBJ's philosophical and skills-based teachings have attracted a significant global following. However, he is also a divisive figure within the wilderness/primitive survival movements with many questioning the genuineness of Stalking Wolf's teaching or existence; others laud Brown for his almost supernatural abilities that are repeatedly asserted to be a type of 'indigenous spirituality' or, as Brown puts it, 'earth philosophy'. An extract from one of his many 'indigenous philosophy' courses follows:

> This course covers the philosophy by which Stalking Wolf lived his life, as well as what he taught to Tom during their 10 years together. While it is based in Native American philosophy, Stalking Wolf found many truths common to all mankind throughout his years of extensive wandering. It is the combination and distillation of these common truths that are covered in this, and subsequent, Philosophy classes. (Tom Brown Jr.'s Tracker School 2015)

Another example is provided by Bill McConnell, a prominent primitive survival skills practitioner in the USA and lead instructor at Brown's *Tracker School* for a number of years. He says of himself on his company website, 'Whether the subject is tracking, awareness, flintknapping, bow-building, fire-by-friction, or any of a dozen related topics, Bill teaches with a deep and abiding respect for the ancient skills and for the elders of indigenous cultures who devoted their lives to passing down these unblemished truths' (PAST Skills Wilderness School n.d.). Furthermore, McConnell's website states:

> If we follow the tracks of our ancestors back far enough, deep down in the roots of our collective family arbor, we find that we are the descendants of mystical people. Highly aware individuals with the abilities to track across any surface. Master survivalists, with the skills to flourish lavishly in any landscape. Every need provided for through the bounty of the living earth. Herbalists and healers with supernatural intuitive powers. Silent hunter-gatherers, camouflaged and invisible in the pigment and aroma of the very soils and plants. This knowledge is still being preserved and passed on.... PAST Skills wilderness school is the educational source for those seeking to immerse themselves in the ancient arts of indigenous philosophy, nature awareness, primitive survival, and aboriginal tracking (PAST Skills Wilderness School n.d.).

Such narratives devalue, globalise and appropriate indigenous knowledge as being instantly accessible to anyone. The skills are justified through the language of genetic science, figured as 'our collective family arbour'. At the start of this narrative, no-one needs to learn anything, since 'we' are 'mystical people', 'highly aware individuals', with 'supernatural intuitive powers' that make us 'master survivalists' enabling us automatically to 'flourish lavishly in any landscape' – to find food and water, make fire and shelter, intuitively, in any biome. However, the commodification that accompanies such colonial appropriation necessarily shifts the narrative to a commercial one, in which attendance at PAST Skills is required. The narrative is as internally incoherent as it is practically absurd, while providing a potential danger to those who take it literally and go unprepared into wilderness settings.

This kind of faux-mystical appropriation of indigenous knowledge strongly echoes genuine indigenous wisdom literature, such as the work of Black Elk that influenced some environmental discourses in the 1970s. In his critique of the rise of 'green primitivism' in environmental discourse, Ellen (1986) interrogates the use of indigenous knowledge as a conflation of spiritual guidance or wisdom in

the face of Western environmental concerns and its implicit evocation of a stereotypical 'noble Indian'. Ellen (1986) points out that such conflations mean it is difficult to know who is being referred to when the terms 'indigenous', 'tribal', 'ancestral' or 'primitive' are invoked, supposing by a process of elimination that it is foraging societies whose 'ecological virtue' is seized upon: 'populations that are small in size, uncentralized, and which do not obviously modify their environment in any radical way. And so by progressive elimination of social types we are left with foraging peoples as the archetypal primitives' (Ellen 1986, p.10). Citing examples such as the Sioux Indians, Ellen (1986) further highlights the paradoxical way in which a Euro-American stereotype of the American Indian operates in such projections of ecological virtue, by questioning where the boundary is placed between American Indians who were pastoralists and horticulturalists (some with sophisticated hierarchies and divisions of labour) and the hunter-gatherer archetype set out by 'green primitivism'. Thus, Ellen points out the problematical persistence and potency of the trope of primitive environmental wisdom.

Primitive skills have (and continue to have) a significant influence within the bushcraft scene; however, the hybridised nature of bushcraft removes it from the more 'purist' commitment of primitive technology to archaeological experimentation and a mode of subsistence in nature that aspires to a total rejection of modern technologies in a wilderness context. Therefore, whereas the woodsman's axe and the bush knife, the kuksa and the wool shirt are iconic in the bushcraft scene, it is the stone tipped arrow, flint knapped blade, bone fishhook or buckskin clothing that symbolise the primitive skills community. Thus, prim-tech moves closer to the re-enactment of an earlier time, prides itself on living archaeological re-discovery and can shade into and/or be influenced by 'Stone Age re-enactment', 'living history' and 'Indianist' scenes. However, while some of the exponents of the primitive skills scene may take a keen interest in archaeology and ethnography, and thus sometimes closely replicate the material culture/artefacts of hunter-gatherers, its core interest is in wilderness living, using minimal (or no) modern technology or materials. Indianism, on the other hand, seeks to re-enact the culture of the American Indian and prides itself on close accuracy, mimesis and precision in replica in this regard as well as fantasy and play (Kalshoven 2012). Bushcraft, then, shares with the primitive

technology/survival scene a desire not so much to re-enact or accurately re-produce historical skills/artefacts, but to be guided by them in reproducing living skills that enable direct life in a natural or wilderness environment – not for display in a static museum or a short gathering for historically accurate re-enactment.

There exists considerable overlap between the bushcraft and primitive survival/technology scenes since, while they may consult static sources such as ethnographic and archaeological records and artefacts, both relate their practices to lived, fluid (not static), land-based skills such as those involving food foraging, fire making and trap-making, for example. Both also express core interests in self-reliance *and* nature connection, often expressed as a connection to 'our primal ancestors' – that is, to what it means to be 'fully human' and live (for a while) as a species-being is 'supposed' to live. Whatever the case, a detailed, in-depth, sensitive 'perception of land' is what is sought in primitive technology, as in bushcraft – as well as the skill in producing useful items, as indigenous peoples did, in order to live in and with the landscape.

3.7 Critique

3.7.1. Woodcraft and Frontier Scouting

While the literature of the day does not always differentiate between woodcraft and frontier scouting, social organization made a clear distinction between civilian and military affiliation and purposes. It is useful to follow that distinction, since the skills of woodcraft and frontier scouting overlapped, while their contexts remained separated from each other. Accordingly, woodcraft primarily encompassed the bush skills of those who established their lives in wilderness with minimal recourse to modern technologies and with only a marginal connection to the imperial metropolitan centres. These were the men who observers of the eighteenth century, such as Benjamin Rush and Johann David Schoepf, termed 'white Indians' – those who 'went native', such as mountain men, backwoods settlers and pioneers (Jordan and Kaups 1992, p.4). I suggest, therefore, that woodcraft holds, as its focus, naturalist and ecological knowledge, craftsmanship, hunting, trapping, recreational camping and living

from the land. By contrast, frontier scouts seem distinct from the mountain men, coureur de bois and backwoods settlers, since they always remained in some way explicitly attached to a military supply line or the metropolitan centre and its institutions, and who often carried with them the technologies, uniforms and attitudes of those institutions. Further, the skills of frontier scouting emphasise fieldcraft skills and the tactics of stealth, observation, evasion, camouflage, long-range travel, military campaigning, intelligence gathering and man-tracking/hunting/trapping. This category broadly encompasses colonial explorers, Indian scouts and other military/ranger units who engaged with practices of campaigning, reconnaissance, stealth tactics and fieldcraft.

While civilian woodcraft and military frontier scouting are highly permeable and historically entwined, it is helpful to distinguish their different approaches to land-based skills, namely the difference between wilderness as a location for establishing and living a life and wilderness as a location for imperial activity. That difference is epitomised by the two contemporaries, Ernest Thompson Seton (1860-1946) and Robert 'Stephe' Baden-Powell (1857-1941). Seton's woodcraft and BP's imperial scouting conjoin as modern bushcraft at the turn of the twentieth century but lead in different directions. Seton's work fans out into indigenous knowledge as a basis for ways of living, naturist study and craft bases. Taking the image of the American Indian as an idealised type, its ideologies tend towards romanticism, anarcho-primitivism, humanism and ecological sensibilities. Baden-Powell's approach fans out into survivalism and the colonial use of indigenous peoples to deploy their skills for imperial purposes, supporting ideologies of militarism, nationalism, imperialism and individualism. Both approaches could become highly morally politicised, a feature observable in the youth movements of the early twentieth century, and both might also become highly romanticised, imaginative and even fantastical. At their points of contact, however, they intermingle into new, hybridised movements that hold a range of ideologies beneath their surfaces. Such hybridisation is apparent in the Legion of Frontiersman, where the military intentions of the Legion hybridise with its highly romanticised ideals of the rugged wilderness life.

Similar processes occurred in 'third' and 'new' cultures of neo-Europe: the hybrid cultures of Australia such as those of the bushmen, explorers, ranchers and stockmen, those of South African military scouts, Arctic explorers and of

Canadian trappers and mounted police, where colonising Europeans drew heavily upon the indigenous populations to support imperial aims. However, it is the Legion that first typifies and articulates these various Neo-European, frontier cultures of the British Empire as 'bush craft' and 'colonial craft' and situtates them in a context that contains most of what modern practitioners would recognise as bushcraft today. This development was supported by the emergence of a critique of modern Western civilisation that challenged earlier ideas of savage nature and 'primitive' peoples. A discursive shift occurred. Western assumptions of technological superiority, that first created the civilising mission of colonial exploration, shifted to a critique of modern, urban and industrial processes as dehumanising, feminising and alienating. This led to concerns about the social and moral character of urban youth at the turn of the twentieth century; and to a veneration of 'primitive' and wild nature as a corrective to the corrupt and alienating effects of modernity. Importantly, the work of romantic Euro-American nature writers such as Ralph Waldo Emerson, John Muir, Henry Thoreau, Ernest Thompson Seton, Archibald Belaney (Grey Owl) and Stewart E White, are now recognised by modern environmentalists as the precursors of modern conservation and ecology and of an 'ecological consciousness' (Devall and Sessions 1985). Further, combining both social concerns and nature veneration, McKusick (2010, p.123) claims that 'much Romantic writing emerges from a desperate sense of alienation from the natural world and expresses an anxious endeavour to re-establish a vital, sustainable relationship between mankind and the fragile planet on which [we] dwell'. These ideas of connection and re-enchantment with the natural world and environmental thought find their contemporary resonance in notions of 'deep ecology' and 'Earth wisdom' (Devall and Sessions 1985).

3.7.2 Survivalism

One response to collective social and ecological concern was survivalism. Its ideology encompassed various expressions of survival skills, from practical wilderness preparedness, to emergency wilderness survival techniques and military survival training, and is currently most visible as a popularist, civilian notion typified by sensationalist and fantastical survival television and other commercial media, as well as in the personal concerns and practices of civilian

'preppers'. I shall use terms such as 'pop-survivalism' and 'entertainment survivalism' to refer to a contemporary and popular survivalist genre/discourse, as distinct from the real-life practical concerns of wilderness emergency response and military survival training, although overlaps exist.

Survivalism is core to understanding bushcraft's historical development, paralleling it historically until the divergence marked by the different approaches of Seton and BP. In the nineteenth century, both shared the principle of 'self reliance in nature': for example, in 1871 (first published as a series in Lord and Baines 1868) Lord and Baines introduce their vast instructional compendium for travellers, *Shifts and Expedients for Camp Life, Travel & Exploration* by stating, 'As necessity is the mother of invention, so is self-reliance the father of its practical application' (p.1). However, the desire for 're/connection with nature', traceable back to Seton, marks an ideological point of divergence. The category of survival skills shares bushcraft's commitment to self-reliance in nature, but at the same time modern survivalism diverges from bushcraft in respect of bushcraft's second core ideal – the desire for nature connection.

In contemporary bushcraft practice the natural world is sought as a place of inhabitation; in survivalism, nature is viewed as a hostile place which must be tamed or conquered and where one can be overwhelmed. The concept of taming or conquering anticipates a return to civilisation or the re-establishment of a civilised space. To put it another way, while bushcraft and survivalism share self-reliance as a dominant theme, a joy of being in nature motivates the former (Appendix 1: Q8-10, p. 325[17]), while fear of a hostile world influences the latter. This fear/joy distinction between survivalism and bushcraft creates a fundamental polarity between the two approaches to being in the natural world. Ultimately, survival utilises 'self-reliance' to escape from untamed wild nature and return to a civilised state, while bushcraft utilises 'self-reliance' to retreat from civilisation and live in a state of nature (at least for a while). The two categories are, however, fluid as practitioners can move from one practice to the other.

Bushcraft seeks to re-establish a relationship with the natural world, whereas survivalism attempts to dominate nature in order to dispel fear of it as

[17] This appendix shows the results of a general bushcraft questionnaire survey that was conducted as part of this research in 2013. It included 44 questions and attracted a maximum of 434 respondents to any one question.

alien: apocalyptic anxiety gives way to apocalyptic nostalgia. The first response critiques modernity and the second response re-enforces it. Therefore, while both bushcraft and survivalism converge in emphasising self-reliance in nature, each responds quite differently to separation or alienation from nature, moving in different ideological and discursive directions.

3.7.3 Outdoor Education

The philosophical differences between bushcraft and survivalism are transmitted through education. Bushcraft education relies on land-skill and technique - 'proficiency in acquiring an intimate, hands-on knowledge of the woods' (Turner 2002, p.464), arising from a woodcraft tradition that celebrated 'the art of getting along well in the wilderness by utilizing nature's storehouse' (Kephart 1906, p.xi). By contrast, Outdoor Education has been described in terms that locate it closer to a survival/ military paradigm. As Loynes (2002, p.3) puts it, 'Nature is understood as an assault course, gymnasium or a puzzle to be resolved and controlled. It is a resource to be commodified instead of a home to which to relate'. In this formulation, OE's reliance on technology and force hints at a colonial commercial and military mindset. Loynes (2002, p. 3) further suggests that this algorithmic approach is born out of the British Army's Ro Allen Company at Sanhurst in the 1950s. These issues are further discussed in Chapter Eight.

Chapter 4 : Contemporary Bushcraft: An Ethnographic Approach

4.1 Introduction

The term 'bushcraft' is problematic. It has its origins in the practice and language of colonialism and, although it has been redefined and reclaimed subsequently, it remains inevitably 'post-colonial'. It resists a final, authoritative definition, politically, culturally and linguistically. Bushcraft's broadly coherent identity as a contemporary practice is fluid, accented differently according to its contexts, permeable to social, technological and cultural influences. It is a dynamic set of discussions and practices. However, despite its fluidity, bushcraft is a powerfully evocative term and concept, with a clear community of practice, literatures, debates and adherents as well as strong affiliations with particular worldviews and moral philosophies.

Whilst the preceding historical account has provided some sense of its origins, no ethnographic account or theorisation of bushcraft currently exists. This may be partly because the concept in its contemporary sense is still emergent, with no fixed definition, of subject or well-articulated sets of rules or organisational structures. Whilst contemporary subject specialists have written about bushcraft there is little consensus concerning its theorisation as a practice. Discussion in the current (popular) literature tends to be skills-based or personal-experience-based and does not attempt to locate it as a cultural phenomenon or practice. Accordingly, bushcraft remains a strongly personal practice that is situated outside 'the Academy'[18] (Stanley 1990, p. 9–10). This raises questions concerning the contemporary identity of bushcraft and its meaningfulness to those who engage with and shape its practices. In this chapter, I provide an ethnographic description of the social practice of bushcraft and examine the meaning and the meaningfulness of associations made by contemporary Western

[18] Stanley (1990, p. 11) uses the term 'the Academy' in reference to knowledge that is separable from those involved in it - 'the academic mode and its production of alienated knowledge out of a denied labour process'. Stanley (1990) distinguishes the Academy from praxis, which is knowledge as inseparable from practice.

practitioners. I use these data to further interrogate bushcraft's relationship with the academy and with current anthropological notions of 'indigenous knowledge'.

4.2 The social world of bushcraft

As an assemblage, bushcraft practitioners do not form an easily defined community with clearly discernible boundaries. Bushcraft has no established structures, organisations for membership or centralised institutions. Its practitioners, as potential subjects of conventional ethnography, are geographically and demographically diffuse. Therefore, delineating a well-bounded population for study is difficult. We might, however, consider it to be a 'social world'. Unruh (1979) describes this as follows:

> …A unit of social organization which is diffuse and amorphous in character. Generally larger than groups or organizations, social worlds are not necessarily defined by formal boundaries, membership lists, or spatial territory . . . A social world must be seen as an internally recognizable constellation of actors, organizations, events, and practices which have coalesced into a perceived sphere of interest and involvement for participants. Characteristically, a social world lacks a powerful centralized authority structure and is delimited by . . . effective communication and not territory nor formal group membership. (Unruh 1979, p.115)

In the diffuse social world of bushcraft, reliance on 'mediated communication' becomes a typical feature (Unruh 1979). Communications encompass the particular practices, processes and perspectives of bushcraft skill and knowledge, as well as ideas and styles concerning clothing, tools and equipment. This occurs through the medium of subject specialist magazines, bulletins, journals, manuals and books, and through technological media such as television and DVDs; most significantly, however, it occurs via information and communication technology (ICT) such as forums, chat rooms, blog sites, websites, social media and, in particular, YouTube (Unruh 1980, p.280). Despite the accessibility of mediated communications, my research indicates that face-to-face communication in the transmission and acquisition of skills and knowledge is, whilst less accessible than other methods, still most profoundly valued where it can be obtained either commercially through courses or through personal connection.

The idea of a 'social world' provides a helpful construct for the ethnographic analysis of bushcraft. It illuminates the complexities of delineating a group for research in a 'volunteristic, partial and mediated community' and where 'a search for formal roles, spatial delimitations, peer groups would cause the researcher to overlook much of what makes involvement in social worlds distinct from other kinds of social organization' (Unruh 1980, p.280). Since delineations of social worlds are not typically territorial or geographical, Unruh (1980, p.284) suggests that 'whatever formalization occurs … arises out of centers of communication'. 'Communications centers', then, are where debates, procedural matters and decisions surrounding the organisational focus are articulated while illuminating shared perspectives, processes and practices. In the social world of bushcraft such 'hubs' of communication exist most vitally as internet forums and Facebook groups where members can express and debate ideas and concerns, and which provide crucial sites for research to take place.

Whilst geographic dimensions are insufficient to delimit social worlds, non-formal spatial sites and components remain important for the structure of a social world which includes, for example, meeting places and convention sites (Unruh 1980, p.285). With bushcraft, such meeting places are conspicuous as public commercial annual events such as the 'BushMoot', 'The Wilderness Gathering' and 'The Bushcraft Show' in the UK, and 'RabbitStick', 'The Woodsmoke Symposium' and 'WinterCount' in the USA. Public events such as these provide physical sites for established practitioners to meet, learn, share and exchange ideas and debates, and often create and re-enforce long-standing professional and friendship ties, while providing a gateway for newcomers to enter the social world. Some types of geographical centre are also described by Irwin (1977) as a 'mecca', understood as a place that attracts a particular group of people who hold a particular interest. While face-to-face communication may be largely absent in them, particular physical places may be recognised as holding collective meaning for the social world. Thus, in the same way that Californian beaches hold geographical significance in the social world of the surfing scene (Irwin 1977; Irwin 1973), bushcraft practitioners, while part of a global social world spanning an array of places and ecologies, primarily focus on the expansive northern temperate forest, riverine and lakeland wilderness areas of the Scandinavian and Canadian 'North Woods' as a focal geographic place. The 'North Woods', then,

provide important psychological sites and physical locations for the optimum 'authentic' bushcraft experience – the bushcraft expedition or journey as a kind of pilgrimage.

4.2.1 Authenticity in the social world of bushcraft

The bushcraft journey or pilgrimage creates a liminal space in which practitioners partake of intense experiences, learning and interactions, and establish *communitas* for those who journey together in small self-reliant groups. They cope together with the complex of bushcraft activities, adapt to changing conditions and become immersed in remote 'wild' forests. The experience of a bushcraft journey thus produces for practitioners a deepened 'authenticity' in terms of bushcraft skill and knowledge (Irwin 1973). Rickly-Boyd (2013, p.3) employs the concept of 'existential authenticity' through which he examines the lived experiences of tourist pilgrims and rock climbers, noting that authenticity is performed and emplaced and, as he suggests, it has little to do with touring objects but instead refers to a state of being. That is, authenticity addresses 'the moments of tourism experience that not only induce spontaneous, heightened emotional states but also act[s] as a catalyst for existential change' (Rickly-Boyd 2013, p.3). As such, he asserts that it is an activity-based approach to authenticity in which, following Heidegger, 'authentication of the self-change narrative … [arises] from the journey' (Rickly-Boyd 2012, p. 3). Similarly, practitioners experience existential authenticity in both the application of bushcraft to the immediacy of negotiating a wilderness journey and also in terms of the directness of their relationship to natural materials and to their enskilled crafting of items by transforming raw materials using simple hand tools.

Another mode of authenticity relates to a type of cultural tourism found in the pilgrimage to physical and psychological sites of bushcraft significance and in the adoption of 'traditional' indigenous knowledge-based skills. In practice this occurs in the 'bushcraft expedition' to remote environments and extant indigenous peoples where practitioners seek to learn and experience how indigenous peoples live from and relate to their landscape, but with an emphasis on 'pastness', the learning of 'traditional', pre-contact skills. This is problematic since it evokes a colonial view of the primitive, suggesting notions of authenticity and tradition that are static. Nevertheless, in bushcraft, romantic and primitivist

notions of indigenousness are pervasive and represent what is considered authentic about indigenous, land-based skill. Moreover, practitioners who have learned their skills directly from indigenous peoples are afforded high status in the bushcraft scene. This is exemplified by Ray Mears who, in the BBC2 media production *Ray Mears' World of Survival* (1997-1998), was seen to visit indigenous people around the world to showcase their skills and knowledge for survival in 'harsh' landscapes. Not only this, but Mears also performed many of these skills himself – making friction fire just as the Kalahari Bushman do, for example. To a large extent this highly popular production set the scene, not only in cementing bushcraft's association with indigenous knowledge and skills, but also for this media genre of adventurous anthropological television to expand, giving rise, for example, to the BBC 2 production *Tribe* (2005-2007), presented by ex-marine Bruce Parry.

Theodossopoulos (2013) asserts that reification of this type of romantic and bounded image of 'native' peoples for populist media productions is a type of anthropological tourism recreating the colonial gaze. Moreover, it evokes an *Indiana Jones* stereotype that shares many similarities with 'anthropological tourism'. Salazar argues that, in anthropology, the image of the 'adventurous fieldworker, traveling to remote places, hunting for lost "tribes" and "noble savages," has been part of the romantic imagination associated with anthropological research throughout the 20th century' (2013, p. 670). In this context, practitioners may naively accept stereotypes of native peoples to which they are exposed by TV programmes, magazines such as *National Geographic* and films. This type of cultural tourism that not only seeks out authentic indigenous people but, in the case of bushcraft, also seeks their authentic land-based knowledge and skills, might then be regarded as both 'innocent and imperial' (Pratt 2008, p.33). I further discuss these issues in Chapter Eight.

4.2.2 Serious leisure in the bushcraft scene

Irwin (1977, p.27) characterises 'scenes' as expressive social worlds existing in mass urban society and arranged around leisure activities. In addition to being an expressive, leisure activity, the scene is voluntary and less organised than a counter-culture or subculture. For example, bushcrafters, like Irwin's surfers, do not go out and recruit as do Hare Krishnas or Black Panthers, and because surfers

(like bushcrafters) do not constitute an organisation, there are no governing rules and bureaucratic hierarchies. Nevertheless, scenes are generally located in physical places; for example, the beach is the meaningful location for the surfing scene, for the skiing scene it is the slopes and for the bushcraft scene the northern temperate forest. Irwin (1977, p.51) argues that, in wealthy countries in which people have leisure time, it is not so much the jobs that people do that provide them with personal identity and meaning but the scene, which expresses alternative lifestyles that are more partial than a sub or counter-culture (Farmer 1992).

However, the partial, voluntary and mediated nature of a social world as described by Unruh (1980) should not be mistaken for a lack of commitment among its participants. Those who enter the bushcraft scene may become so intensely and personally involved that they claim that it has infiltrated their everyday lives or has become synonymous with their personal identity. This is indicative of the deep self-identification of its participants with the scene, and thus locates it beyond casual engagement with a leisure pursuit, being perhaps better described, following Stebbins (1982), as a 'serious leisure activity'. Stebbins (1982) differentiates 'serious leisure' from 'casual leisure':

> Serious leisure is the systematic pursuit of an amateur, hobbyist or volunteer activity that participants find so substantial and interesting that in a typical case they launch themselves on a career centered on acquiring and expressing its special skills, knowledge and experiences (Stebbins 1992, p.3).

A focus on involvement and progression through 'career stages' of a participant in a serious leisure activity describes well the deeply committed experiences of many who enter the bushcraft scene, and also accounts for the six qualities[19] defined by Stebbins as characterising a serious leisure career. Progression and integration into the activity can be marked by turning points and stages of achievement requiring perseverance to overcome challenges and effort to acquire the necessary skills and knowledge. The durable benefits obtained by such effort, perseverance and achievement create a strong personal identification with the activity around which a unique ethos is constructed. These qualities

[19] The six qualities may be summarised as: 1) need to persevere at the activity, 2) availability of a leisure career, 3) need to put in effort to gain skill and knowledge, 4) realisation of various special benefits, 5) unique ethos and social world, and 6) an attractive personal and social identity (Stebbins 1992).

manifest differently in each social world creating 'unique sets of special norms, values, beliefs, styles, moral principles, performance standards, and similar shared representations' (Stebbins 1999, p.71) with which participants of the serious leisure activity identify. In discussing the social world of surfers, Irwin (1973, p. 133) proposes that identity in this sense does not refer to 'position within some social system' (such as an occupation) but rather to 'a category of meaning in the world, the system of beliefs and values'. Thus, like Irwin's description of a scene, 'commitment, belonging and ethos of a defined culture are at the core of the concept of serious leisure' (Kane and Zink 2004, p. 331). However, it should be noted that whilst commitment to a scene is a way of life for some, for others it is a passing fad or influence (Irwin 1973). In contrast, then, a serious leisure career expresses a great commitment to a social world that may or may not be considered as a scene (Irwin 1973).

Variability of commitment to a scene is exemplified by the partial, peripheral consumption patterns of participants at its more recreational end. The advent of ICTs, mass media and contemporary ideologies of consumption may have created an influx of new participation that is less committed to a 'career' and more characteristic of a passing fad or influence. This is highlighted, for example, by Platten (2013) in an account of allotment gardening knowledge and its transmission in the UK, where the rise of celebrity chefs and television and media popularity of productive gardening programmes have encouraged a more faddish type of participation in a serious leisure activity, with inexperienced participants having gained 'preliminary knowledge from gardening programmes, magazines and books that they try to instantiate with the expectation of immediate results' (Platten 2013, p.305).

In contrast, the 'elite', 'high status' or 'notable' members of the social world function as opinion leaders, being representative of many professionals, amateurs and hobbyists in the field who embrace the activity as a lifestyle. In attempting to elucidate the meaningfulness to participants of the educational, vocational and applied aspects of bushcraft on the one hand and the commercial styles and projections of media and product for mass-market consumption on the other, my research has sought the perspectives of those recreational and professional participants alike who enter a bushcraft 'career'. Thus, research into the social world of bushcraft has fallen broadly into examining the dual continua

of professional and recreational practice while examining the private and public features of that practice. Furthermore, in examining the bushcraft scene, it soon becomes apparent that it is most visible as an educational practice, characterised by teachers and learners.

4.2.3 Bushcraft social types: notables, professionals, amateurs, hobbyists and volunteers

High status or notable bushcraft practitioners such as Ray Mears (UK), Les Hiddins (Australia), Eddie McGee (UK) Larry Dean Olsen (USA), Mors Kochanski (Canada), John 'Lofty' Wiseman (UK), David Wescott (USA), Tom Brown Junior (USA), and Lars (Sweden), are widely recognised within the bushcraft scene. These individuals have (or had) each achieved long-established, professional, public and media profiles, acquired through original and influential (popular) publications and sometimes through mass media such as television. They each have established educational roles in providing military training or commercial education courses – often both.

Bushcraft notables, therefore, act as knowledge sources or conduits for practice, and their mode of learning the craft often has military associations. Mears' popular television and published material reveal, for example, that his influences include a Chindit soldier, Kingsley Hopkins, who taught Mears his earliest bushcraft (Mears 2013, p. 20). Lars Fält of the Swedish military also had a substantial proffessional influence upon Mears' bushcraft practice and development (Mears 2013, p. 340). Mears combines this military influence with a 'style' akin to the indigenous English Woodsman (exemplified by Robin Hood), countryman or hunter, while also being known for producing ethnographic television that imparts the 'survival' practices and wisdom of indigenous peoples. Lars Fält taught at the Swedish Army's Ranger School in Lapland for 35 years and at the parachute Training School in Kalsborg; he worked with UK and US Special Forces and, in 1980, established the Swedish Army's Survival School. However, Fält has also 'worked with indigenous peoples from such far flung places as Siberia to Canada, all the way down to Australia, and is also the author of eight books on Survival and outdoor skills' (Woodlore Ltd 2015). Fält was employed by the Swedish military to visit and research indigenous peoples and their knowledge of 'survival' in these various regions, while also unteratking

many of his own personal investigations, research and journeys to learn from indigenous knoweldges in various regions (interview, 2012). Eddie McGee served as a paratrooper with the British Special Forces as a tracker and inaugurated one of the first UK survival schools - the 'National School of Survival'. He was the author of an early iconic survival manual 'No Need to Die' which was first published in1977. An adventurer and explorer, McGee also appeared in his own television show, 'Stay Alive with Eddie McGee' which was first transmitted in 1979 (Survival Sam 2007). Les Hiddins, a Major in the Australian regular army, combined his military background with popular television productions, showing how Australian Aborigines survive in harsh bush with an emphasis on 'bush tucker' (e.g *Bush Tucker Man*, 1987-1996). Lofty Wiseman produced an internationally best-selling survival text in the 1980s based on his military experiences as an elite SAS soldier in the British army and the knowledge he thereby gleaned from local populations that inhabited the remote regions in which he served. Similarly, after a career in the Canadian Navy, Canadian woodsman, Mors Kochanski, went on to learn from indigenous groups, books and personal experimentation and recreation; he later taught survival skills and woodcraft to military personnel. By contrast, Larry Dean Olsen, an outdoor recreation educationalist, nurtured a lifelong fascination with re-creating indigenous and ancient wilderness survival skills through ethnographic and archaeological evidence and documentation. Olsen, a professor at Brigham Young University, USA, began running outdoor programmes in primitive survival skills in the 1960s, which eventually became privatised and incorporated as Boulder Outdoor Survival School (BOSS) – the longest running contemporary bushcraft/survival school. In 1985, David Wescott, a student of Olsen, took over the running of BOSS and also contributed considerably to the scene by launching popular publications and working as a lecturer at Brigham Young University. Tom Brown Junior (TBJ), one of the earliest and highly influential proponents of primitive and wilderness survival skills in America claimed to have learned his survival and tracking skills from 'Stalking Wolf', a Lipan Apache elder. He inspired a new generation of practitioners through his esoteric teachings, his wilderness survival school – 'Tracker School' – and his extensive publications.

These notable professionals have not only defined contemporary bushcraft practice but have contributed significantly to the field of practice, helping to

construct and shape its contemporary identity. Their collective backgrounds reveal common key strands of influence: ethnography, indigenous knowledge, adventurous exploration, archaeological re-creation, primitive survival skills, military survival training, wilderness recreation, woodcraft and scouting. However, their status is strongly dependent on *skills* (particularly with indigenous influence) and is practice-orientated. They have also defined the scene's symbolic capital (Bourdieu 1986), which has changed as their practice has evolved and changed, reflecting the 'ways of thinking' that coalesce within the practice of the elite or notable practitioners.

Following the popularity of the television documentary programmes of Les Hiddins, Eddie McGee and Ray Mears, the past decade has spawned an explosion of popular television entertainment survival shows. This broad category of 'entertainment survivalism' and/or general notions of survival, constitutes a genre visible in the mass media market of 'survival television', popular survivalist forums and text based sources. This popular genre tends to move in the direction of imagined (or even fantastical) survival scenarios, that can include imagined apocalyptic survival scenarios (from preppers to zombies). In this thesis, I will make a distinction between what I term 'entertainment survivalism', and 'military survival', while referring simply to 'survivalism' to encapsulate the entire category. Whilst entertainment survivalism usually incorporates aspects of serious military survival, it does not apply it for military survival purposes, but instead popularises ideas of survivalism among the wider civilian market to form a commercially recognised genre.

It is beyond the scope of this thesis to explore all the complexities of survivalism or to attempt a comparative analysis of the two genres of bushcraft documentary and entertainment survivalism. However, in order to distinguish clearly between them, it is important to note some of their key features.

Bushcraft documentary finds its origins in film documentary such as Robert J. Flaherty's *Nanook of the North* (1922), and John Grierson's *Drifters* (1929), both of them ultimately indebted to the Lumière Brothers' newsreel films of the 1890s. Essentially, documentary film operates 'either by means of direct recording or by reconstructing what happened – or by a combination of the two', often seeking to redress social, political, or environmental problems through an approach of 'give the people the facts and they will know what to do' (Milsome

1979, p. 182). Its purpose is explicitly educational. By contrast, entertainment survivalism follows the convention of serial drama, known colloquially as 'soap operas'. Like serial drama, entertainment survivalism focuses on interpersonal relationships between its characters, utilising emotional and moral conflicts, chance events, missed meetings, and a repeated sequence of crises and resolutions to gain their dramatic effect. Both bushcraft documentary and entertainment survivalism foreground their geographic locations, but where the former focuses on developing an intimate knowledge of and relationship to its setting, for the latter it is simply a backdrop to the drama of human relations.

Similarly, both genres utilise an expert presenter, but while bushcraft documentary will show the presenter engaging directly themselves with the skills, techniques, and knowledge required to relate to their environment, in entertainment survivalism the presenter's role is to comment on and judge the participants' progress and achievements. Ideologically, therefore, where the voice of bushcraft documentary is explicitly authoritative, the voice of entertainment survivalism is implicitly authoritarian. Correspondingly, in entertainment survivalism, an oppressively critical and insistently judgemental narrative replaces the scholarly distance maintained between presenter and viewer in bushcraft documentary. This difference in narrative tone is emphasised by their difference in narrative form: while bushcraft documentary works towards closure, entertainment survivalism continually resists it, providing a series of false culminations, to meet its serial drama convention of repeating disasters and resolutions, based on interpersonal relationships. Unsurprisingly, therefore, where entertainment survivalism has an undercurrent of sublimated sexuality, in its relationships between contestants, or in the hypersexualised images of their experts, posed in dominant and challenging positions, bushcraft documentary does not.

Accordingly, while the bushcraft documentaries presented by Mears and Hiddins, for example, sought to educate the public about knowledge required in order to live from the land – highlighting Indigenous knowledge as centrally significant – entertainment survivalism shows focus more on sensationalism, fantasy and amusement. The UK's most prominent individual in the field of entertainment survivalism, perhaps, is Edward 'Bear' Grylls, whose television shows, therefore, have little in common with bushcraft documentary or the

military survival training provided professionally by bushcraft education. Rather, entertainment survivalism shades into apocalyptic fantasy, epitomised most recently by Stephen Fingleton's (2015) film *The* Survivalist. For that reason, I suggest that entertainment survivalism has not contributed to the realisation of the contemporary concept and practice of bushcraft, so much as drawing from it for purposes of commodification and brand development. Further, as well as the accomplished and established military backgrounds of Hiddins, Fält, McGee and Wiseman, and Mears and Kochanski's significant contribution to crucial life-saving military survival training, those notable practitioners also foreground a relationship of respect for nature and the centrality of indigenous knowledge in their learning to live from the land. Thus, they bring to the genre of bushcraft insights they have gained first hand from studying indigenous or local methods. Grylls makes no such claims. Since local/indigenous knowledge is a crucial feature of bushcraft, this difference in source material provides another point of significant divergence between entertainment survivalism and bushcraft, whether as bushcraft documentary, bushcraft education for general or specialist military purposes, or simply the concept and practice of bushcraft

The distinction between bushcraft and entertainment survivalism is acknowledged by Grylls himself, who is dismissive of 'the boring bushcrafty stuff' (Snape 2015). Unsurprisingly, therefore, his television shows position nature as a punitive force (Doyle 2012, p.10). In a discussion of masculinity in narratives of 'apocalyptic survivalism', Doyle (2012, p.8) says of Grylls well-known television production 'Man vs Wild':

> Through the presentation of various dangers alongside ingenious precautionary methods (a hot day in the desert may require Bear to wear his tee-shirt as a urine soaked hat, the possibility of starvation in every episode necessitates eating something which seems inedible), the viewer is left with the impression that an adventurer such as Bear can survive in any harsh and inhospitable environment because of his training, his capability, his endurance and physical fitness.

Thus the need to be equipped against nature's hostilities is continuously re-enforced, which, as Doyle (2012, p.8) further describes, is epitomised by a narrative typical of entertainment survivalism: 'as he [Grylls] ploughs through the thick foliage he lists the threats encountered - low light, torrential rain, pounding

waterfalls, falling wood from "trees as big as skyscrapers", rivers transformed into "raging torrents"'.

The broader category of professional bushcraft practitioner refers to those primarily occupying educational or instructional roles and contributing to the definition and shape of contemporary practice through teaching and learning. This is generally in the context of commercial schools, internet websites, blogs and video productions for YouTube, as well as through popular publications, public lectures, performances and demonstrations at related events, festivals, shows and gatherings. These individuals also influence trends in practice through the specific contexts in which they choose to represent themselves, the particular ideology or approach they engender, the skills they select for inclusion in their syllabus and public performances and the way in which they express and present the subject for public consumption. Like the category of 'notable' practitioners, they too influence the scene's symbolic capital and illustrate how, in the bushcraft scene, symbolic capital is related to its constructions of authenticity. Biographies on professional websites reveal such capital as defined principally by four aspects: prior experience with indigenous peoples and their traditional knowledge; time spent in remote and challenging landscapes; affiliations with military teaching or learning and wilderness adventure or 'primitive' skills activities that provide a recognisable level of background experience. These four items of social capital all authenticate the 'expert', with time spent learning directly from traditional indigenous peoples representing the deepest 'authentication' available.

The category of recreational bushcraft practitioners, both amateurs and hobbyists, ranges from public consumers of the scene, who focus on commercial products and style, to those who have deeply committed to it as a serious leisure career but do not practice in a professional context. The recreational category includes Stebbins' (1982) 'hobbyist' and 'amateur'[20] types, although hobbyists, in contrast to amateurs, tend to refuse professional practice preferring instead to organise their own local, regional, national and even international 'meets' and activities such as the annual 'BushMoot' in Britain; these are only occasionally attended by, and certainly not dominated by, professionals. In Britain and the

[20] Literally, 'lover' of a subject from the Latin 'amare' – to love (OED Online 2015a)

U.S. hobbyist bushcraft practice is most visible on YouTube and online forums such as Bushcraft UK or Bushcraft USA. YouTube hobbyists sometimes attract their own substantial audiences with whom they share their skills and experiences through YouTube's visual media channels.

The final category, of 'volunteers' or helpers, is populated by individuals with varying relationships with professionals, depending on their involvement in assisting with activities, commercial or educational (Stebbins 1992, p.201). They are committed to deepening their bushcraft 'career', often with a desire for a vocational outcome. Often these individuals volunteer in groups for activities such as scouting; they also perform an important role through a kind of unofficial 'apprenticeship' relationship with professionals. This relationship varies depending on the needs of the commercial school. In these circumstances, the volunteer gives up their time to help while absorbing much of the 'hidden curriculum' and learning the explicit curriculum as a form of payment. Jean Lave (1991), following Becker (1972), notes how apprentice learners are surrounded by the characteristic activities of their trade:

> Apprentices have the opportunity to see community practice in its complexity early on and have a broader idea of what it is about than just the particular tasks in which they are engaged or that are most easily observable. This appears to be central to processes of learning in apprenticeship. Becker goes on to suggest that, as a consequence of the accessibility of the full round of activities, the apprentice makes her or his own curriculum; apprenticeship thus provides an individualized and realistic learning setting. (Lave 1991, p.69)

By determining the structure of the social world of the bushcraft scene, its mechanisms for interaction, communications centres and geographical hubs, I was able to target physical places and groups for research in this large and globally diffuse population. Commercial courses and meets and events were utilised for face-to-face research. These places were physical locations that enabled me to target a broad array of practitioners since courses and gatherings were attended by notables, professionals, amateurs, hobbyists and volunteers alike. However, it was more difficult to target the hobbyists and so, for this, I utilised 'communications centres' in Unruh's (1980) formulation which, in the case of bushcraft, are provided by online social media such as internet forums and FaceBook groups. I used these online hubs to distribute a survey that could target

both the hobbyist and amateur recreational bushcraft populations for data collection.

4.3 The bushcraft survey

To investigate the meaningfulness of bushcraft practice to practitioners, research was conducted among amateurs, volunteers, professionals and notables. The opportunities provided by commercial courses, personal engagements, public shows and events as well as Skype conversations were used to interview a broad range of these four groups in depth. However, accessing the fifth, large group of hobbyists was more problematic since they do not tend to be as publically accessible, preferring private practice and private 'meets'. Nevertheless, hobbyists constitute a large and representative group. It was important to access them in order to understand how bushcraft meanings are expressed and enacted publically; how they connect as a 'scene'; and how they influence the private lives of those who identify as 'bushcrafters'. In order to complement the in-depth interviews with some broad baseline data, particularly in encompassing the wider more diffuse hobbyist group, mediated communication hubs such as internet forums and social media presented the best opportunity. In 2013, a large general bushcraft survey (GBS) was designed and announced on key internet sites and forums eliciting replies from 432 respondents between May and August (see Appendix 1). The survey was primarily used to validate assumptions about bushcraft that I had observed over a period of years as a practitioner.

Using a mixture of rating and Likert-type scales in combination with directed and open questions, and comment boxes, the survey's questions were aimed at investigating ten interrelated areas: motivations and rationale for practice; taxonomy of skills; sources of knowledge; content of practice; degrees of integration/separation with daily life; emotional affinities with cognate practices; mapping resources and influences; philosophies and tropes associated with bushcraft; explicit relationship with indigenous knowledge; and an emotionally felt (if not explicitly articulated) relationship between bushcraft/indigenous knowledge at the level of skills. Survey results were helpful in confirming qualitative field data and corroborating areas of intense agreement within the practice, and also contained some more surprising and revealing results concerning the nature of what practitioners consider to be critical skills.

4.3.1 Overview of the GBS data

Motivations for practice showed a coherent narrative of relationality and appreciation for bushcraft. For example, practitioners strongly agreed that their practice develops a relationship between themselves and the natural world (Appendix 1.2: Q7.1); that it increases self-reliance in nature (Appendix 1.2: Q7.4); that it benefits mental well-being (Appendix 1.2: Q7.6) and that the practice keeps traditional living skills alive for future generations (Appendix 1.2: Q7.11).

Thus, practitioners sought 'to feel more connected to the natural landscape', 'to experience nature in a hands-on way' and to 'inform and enrich' their experiences of being in nature through bushcraft practice (Appendix 1.2: Q8-13). The survey also highlighted that bushcraft is a largely personal practice, while responses also revealed that learning skills in order to 'keep it alive for future generations' formed a commonly shared rationale, clearly demonstrating something that is strongly felt where there is an intention not simply to learn but also to teach, where practice is not just the rote repetition of a series of skills but the emotional engagement with a belief system. In support of this, open questions identified many respondents as recreational practitioners who also enjoyed teaching/passing on skills to others (Appendix 1.2: Q23).

Bushcraft appeared less important among respondents as preparedness for 'survival' in apocalyptic type scenarios, such as environmental disaster or societal collapse (Appendix 1.2: Q8). This demonstrated a divergence in practice away from the rationale of 'preppers' and survivalism. The lack of agreement concerning fear-driven motivations for practice was also corroborated by a notable lack of agreement concerning tropes of fear and dominance common in survivalist narratives, such as 'Nature is harsh and cruel; you need to be fit and tough to survive in it' (Appendix 1.2: Q41.1). Nevertheless, statements concerning competence 'to increase self-sufficiency in natural/wilderness and places' and 'to learn basic manual, practical skills' that are therapeutic, interesting, support human life and enrich a connection with nature all elicited significant agreement and relevance (e.g. Appendix 1.2: Q8.1).

This corroborates earlier suggestions that practical skill acquisition for wilderness competence is a central feature of bushcraft practice. While other

users of the countryside and wilderness go into nature to do something – sports hunting and fishing, hiking, canoeing - bushcraft practitioners explore skills that enable them to simply exist in nature. In this formulation the natural world becomes not a means to an end, but an end in itself. These findings were further substantiated by survey responses that demonstrated very high agreement concerning the need to learn practical skills in order to become more self-reliant and for the enhancement of personal physical capacity/dexterity leading to competence in wilderness. Participants strongly identified with the propositions that 'Hands-on, practical "know-how" of the natural world is vital if we are to understand, relate, respect and ultimately protect it' and that 'Traditional indigenous knowledge shows us a way to experience nature in a more direct, sensuous, holistic and embodied manner'. Question 20 (Appendix 1.2: Q15) asked respondents to list the skills they considered to be most important to practice, to which many participants responded with an inner quality as being a skill as well as, or instead of, a physical tangible skill. So that while 87.1% of participants cited practical skills, 55.6% mentioned skills relating to ecological literacy (such as tracking and plant identification), 30.4% stated inner qualities such as patience, adaptability or perseverance as essential skills, with 8.3% citing a respect for nature and 4.5% a connection to nature, as a fundamental skill. This response concerning non-tangible qualities as skills that are core to bushcraft was surprising considering the question was aimed at eliciting external skills (e.g. fire-making, knife use and shelter building). It therefore revealed a significant recognition among practitioners of a dual development of internal personal qualities, as well as external ones, as skills for living in nature. There was almost unanimous agreement that 'Man is a part of nature and with skill and knowledge can live in harmony with nature.' This displays a core ecological sensibility within bushcraft that leads practitioners to seek knowledge and skills that enable them to actually live in nature; they seek 'a more indigenous way' of relating to the natural world and moving away from both a colonial one of dominance and scientific rationality or, conversely, one of romantic sentimentality.

Questions aimed at understanding the organisational elements reported that bushcraft was most commonly practiced during local walks, while camping and while undertaking a personal journey (Appendix 1: Q18). Questions 19 and 20 (Appendix 1.2) showed that most people practiced in small woodland copses and

forested areas and mostly practiced alone, something which was also significant when exploring knowledge sources for the acquisition of skilled knowledge. Thus, while an array of text-based, visual and techno-media provided accessible information sources for learning, there was overwhelming agreement that knowledge was primarily gained directly from 'personal experiences in nature' (Appendix 1.2: Q28.10). The most valued ways to learn stood out clearly as being: 'directly from a knowledgeable person', 'from personal trial and error' and also from 'traditional indigenous peoples' (Appendix 1.2: Q31).

A wide range of terms were used to depict the practice (see Appendix 1.2: Q14), with 'bushcraft', 'wild camping' and 'wilderness living skills' receiving the strongest recognition, but 'classic camping', 'wilderness survival', 'woodcraft', 'traditional indigenous knowledge', 'primitive technology' and 'Native/Aboriginal living skills' also receiving substantial recognition as cognate terms for practice. This variation suggests both the linguistic and conceptual instability of the bushcraft domain. Practitioners also demonstrated emotional affinities with romanticised/historical archetypes such as the 'mountain man' and the 'native' or 'primitive', which were shown as being most highly affiliated, followed very closely by the 'frontiersman', the 'Native American Indian', 'the voyageur' and the 'English woodsman', re-affirming bushcraft's romantic and historic influences and roots, both real and imagined (Appendix 1.2: Q33).

The significance and potency of archetypes as symbols in bushcraft, however, raised questions about its relationship to historical re-enactment practices. While to some extent 'style' emerges as a feature of public identification, with lines of convergence around valued artefacts, displays of skill, authenticity, use of traditional skills such as brain-tanning[21] and typical dress, the key divergence between re-enactment and current bushcraft practice is a commitment to historical accuracy. While re-enactments of, for example, the mountain man (Belk and Costa 1998), are devoted to historical accuracy (even if it tends to shade into fantasy), bushcraft practitioners tend to know comparatively little about the history of practice. So that 'the escape from everyday reality and a correspondingly unreal experience' of Belk and Costa's (1998, p. 219)

[21] 'Brain-tanning' refers to a process employed to modify animal hides from a raw or 'green' state into buckskin leather, and which utilises the oils contained in the brain of the animal as a vital part of this technique (or the brain of another animal) (Richter & Dettloff 2002).

'buckskinners' is replaced in bushcraft by a removal to a different location and coping with/relating to the intensely real experience of that location and/or the ever-changing circumstances of the bushcraft journey. Thus, re-enactment, being the use of period costume and artefacts, is strongly located in a particular place and time and is static in its display, identifying features that are quite different from bushcraft's purpose in terms of its practice of moving from one place to another and requiring adaptation and adoption of new ways of doing and being. Therefore, while historical archetypes such as the noble/savage Indian, Robin Hood, the cowboy, mountain man or voyageur may influence particular interpretations of practices, artefacts and styles common to the bushcraft scene, the expression of these archetypes converges on a practice of rugged, masculine, self-reliant, stoic pragmatism for living and journeying in nature.

4.3.2 Style and self-identifications

'Scenes', as previously suggested, are lifestyle communities constituted of 'symbolically, aesthetically and thematically located "territories" in social space' (Pfadenhauer 2005, sec.5, n.p.). Stylistic aspects of behaviour, communication, consumption and ways of thinking determine the individual's relationship to a scene. For those who engage in the social world of bushcraft, style comprises an outward display of inner authentication and self-identification with the practices of bushcraft. Style, therefore, conveys much about the ethos and values of bushcraft that serves not only as affiliation with the scene, but equally as dissociation with the mechanised, urbanised, fragmented and alienated ills of modern society generally; this is distinct from the high-tech wilderness recreation scene which represents such ills and transports them into the outdoors. While I should like to note here that there are perfectly rational and reasonable explanations and arguments for adopting high-tech approaches to the outdoors, it is outside the scope of this thesis to engage with this discussion. Rather, I wish to focus here upon the disassociation of bushcraft from the dominant commercial, commoditised and high-tech approach to outdoor pursuits, evident in gear and technology selection, adoption and style.

For example, 'The Outdoor Show' is an annual exhibition held at the National Exhibition Centre (NEC) in Birmingham, UK, for all types of outdoor adventurous activities. During my attendance at this show in 2006, I observed

how bushcraft practitioners created an easily discernible visual presence against the more general style of brightly coloured technical garments that are characteristically worn by those who engage with adventurous outdoor pursuits such as mountaineering, climbing, hiking, backpacking, mountain biking and kayaking. Indeed, the appurtenances and apparel of bushcraft practitioners diverged clearly from those of all other outdoor pursuits, creating a visual disassociation with high-tech outdoor recreation. The sheath knife and the woodsman's axe are the two most iconic tools of bushcraft practice and are powerfully symbolic of bushcraft as 'working knowledge of the land', creating both a symbolic, as well as pragmatic, link between the individual and their relationship to landscape. The sheath knife signifies to the bushcrafter that, with a knife he or she can recreate wilderness as home. Thus, despite the highly urban setting of the Outdoor Show, at which it is illegal to carry such an item, the knife is so symbolic for practitioners that they attended the show with sheath knives displayed on their belts anyway, signalling their strong affiliation with the rugged, masculine and skilled, land-based identity.

Choices in materials and fabrics for clothing and equipment are essential to both style and practice. Preferred fabrics for clothing share similarities with those of naturalists (such as bird watchers) and hunters insomuch as they tend to be selected for ease of field-repair, inaudibility, concealment (or at least not high visibility), resilience and warmth during relative inactivity (in comparison with more athletic outdoor pursuits such as mountain climbing, for example). These qualities are valued not only for protection against natural elements (such as wind and rain) but also for promotion of direct interaction within the landscape. Natural materials such as cotton, leather, wool and canvas are tough and silent and are suitable for activities such as lying still in damp places, stalking (moving stealthily) through undergrowth, nature watching and gathering materials, working with and around fires, working with knives, saws and axes, hauling, cutting, gathering, constructing and making – for interacting directly with natural materials and landscapes.

These low-tech materials tend to be heavier and better suited to a campfire environment, which contrasts with the more high-tech-reliant experience of mountaineering. In the exposed mountainous conditions characteristic of lightweight hiking and mountaineering, where no fires are possible or permissible

to dry out clothing, the heavier materials favoured by bushcraft practitioners would be an encumbrance at best and dangerous at worst. Thus, material and fabric considerations in bushcraft apparel contrast with the highly visible, complex, highly technical, noise-making, flammable, waterproof nylons and polymers traditionally preferred in garments worn by outdoor pursuits participants; these, of course, are designed primarily as a lightweight, technological barrier against nature and often for a very specialised purpose such as ice-climbing or white water kayaking, for example. Therefore, where it is pragmatic to do so, bushcraft tends to reject the technical and specialised in favour of the simple, the natural, the replicable, the fixable and the self-makeable, sacrificing specialist, technical and light for flexible, adaptable and durable in the long term.

This distinction in gear and material selection between high-tech outdoor pursuits and low-tech bushcraft is well expressed by Tim Ingold's technology verses technique formulation (2000, pp.266–269). Ingold uses the example of a reindeer man's lasso and a food processor. The depth of technique required to operate the simple technology of a lasso (a piece of rope) requires many years of skill learning. In contrast, a food processor uses highly sophisticated technology, which users do not possess themselves and, therefore, cannot replicate if necessary, but requiring only a moment to learn how to operate and involves minimum effort. Furthermore, Ingold differentiates specialised equipment from all-purpose equipment so that, in the case of the lasso, it can also be used for 'setting traps, [and] tying animals to sledges' for example, where the food processor can only process food; Ingold then relates this to the versatility of the Aboriginal man's spear thrower and the woman's digging stick, both of which are simple technologies to which a multitude of techniques can be applied (2000, p.367). Thus he highlights 'tool use as a skilled practice rather than mechanical operation of exterior devices' (Ingold 2000, p.369).

4.3.3 Tools, technique and technologies

This, of course, is not to suggest that kayakers and mountaineers do not have skills, because clearly they attain high levels of skill in their chosen pursuits, but rather to highlight a different relationship to the landscape and to tools and technologies that, in turn, point towards a different underlying ethic in these dual

approaches. I have found this best explained by leading practitioners in the field, Garret Conover and Alexandra Bennett Conover, in their pioneering and influential publication *Snow Walkers Companion* (2006) first published in 1995. The book details traditional woodcraft skills and techniques for winter travel. Similarly to Ingold, but from the perspective of lifelong practitioners of traditional woodcraft skills for classical wilderness travel, they discuss the technique verses technology formulation using the example of the woodman's axe versus the backpackers' camping-stove.

They utilise the hypothetical characters Mark and Judy, who 'grew up with a tool tradition based on what became known as low-impact camping', in which 'the campfire had to be abandoned, and small camping stoves took its place. Equipment became sophisticated, complex and increasingly high-tech' (Conover and Conover 2006, p.101). Furthermore, 'Little of it was made with natural materials and nearly all of it had to be purchased, as little of it was simple enough to be homemade' (Conover and Conover 2006, p.101). However, they say that 'to become skilful with a stove, one merely needs to purchase one, keep it supplied with fuel and observe some easily learned precautions' (Conover and Conover 2006, p.105). In contrast 'to become skilful with an axe one must observe all sorts of surroundings and possibilities. Furthermore, the skills of handle making, sharpening, use and maintenance are lifelong processes that can be refined to exquisite expertise' (Conover and Conover 2006, p.105). Once again, this observation points to the divergence in practices of high-tech camping and low-tech woodcraft skills.

Consequently, Mark and Judy, they say, 'would be well advised to keep their winter travels to a minimum. If anything went wrong with their equipment or supply system, they would be helpless', this is because 'much of their equipment is neither adaptable nor repairable in the field, and even if it were, high-tech campers such as Mark and Judy, would not know how' (Conover and Conover 2006, p.103). Indeed they assert that 'Adopting high-tech gear means subordinating oneself to it' (2006, p.13). On the other hand, in the hands of a skilled individual in an appropriate environment, such as their real-life example, Tukenen McKenzie, with an axe a fire can be made in any conditions. Furthermore, they point out that:

> Using only an axe, one could manufacture tools to make fire by friction, make deadfalls [a type of animal trap] for acquiring food and build the simplest of emergency shelter or the most elaborate of log homes. Snowshoe frames, toboggans, canoe parts and hundreds of other tools can likewise be produced (Conover and Conover 2006, p.104).

They argue that 'high-tech campers are insulated from direct engagement with the environment by the nature of their equipment…essentially being visitors and privileged aliens in the wild' (Conover and Conover 2006, p.103), and highlight that 'With an axe you can build a life, with a stove you can heat water – that is, if you don't run out of fuel and nothing malfunctions' (Conover and Conover 2006, p.104). But not only this, they point out that, in using the axe for wood selection for your fire, 'you must learn about trees, their properties, their characteristics', and in doing so 'you begin to connect habitats species and interactions' (Conover and Conover 2006, p. 105). Thus 'basic knowledge may evolve into craftsmanship, and craftsmanship into art and artistry into something symbolic of place and being'. The principle they describe evokes a subversion of hegemonic capitalist forces, since they replace reliance on market commodities for outdoor practice with a deeper self-reliance and nature connection attained through skilled knowledge that is a central tenet of their practice.

4.3.4 Craftmanship

Similar values are articulated by Mears, when he says to the viewer:

> Even though I am travelling with an open canoe I still have to travel light and you have to be self-reliant. Things can go wrong; you can lose things and things can break. You need to be able to 'mend and make do'. To repair and replace things … that's all bushcraft. (Iromoto 2015)

This principle of 'mend and make do' that Mears refers to echoes Sennett's (2008) discussion about 'making repairs'. In *The Craftsman*, Sennett distinguishes between the 'all-purpose' and the 'fit-for-purpose-only' tool, saying that the 'all-purpose' tool 'allows the individual user to 'explore deeper the act of making a repair' in contrast with a 'fit-for-purpose' tool or 'gadget' (Sennett 2008, p.200). For Sennett, the difference is important insomuch as he suggests that if one simply wishes to relieve frustration then one can employ a 'fit-for-purpose' (or dedicated) tool, while for those who tolerate the frustration and

follow their curiosity ‘the multi purpose [or general] tool will serve as curiosity’s instrument’ (Sennett 2008, p. 200).

In bushcraft practice, a skilled woodsman usually carries a simple modest ‘general’ blade with which he can make more specialist tools from the natural materials available to him. This forces him or her to become very adaptable and to improvise. By contrast, military style ‘survival knives’ represent ‘fit-for-purpose-only’; they are often overly large and unwieldy, containing specialist gadgets that have a tendency to reduce or remove any general functionality and thereby shading into fetishism and fantasy. Similarly, gadget style multi-tool camping knives tend also towards fit-for-[specific]purpose and reflect a similar attention to specific technologies and the ‘operation of exterior devices’ approach that appears in technical clothing for mainstream hiking and backpacking culture. Thus, Sennett's (2008) craftsman values accord with bushcraft’s values, with the practice’s emphasis on simplicity and its focus on the generalised universality of tools/materials as opposed to the technical specificity of outdoor pursuits apparel.

This valuing of the ‘all-purpose’ as a significant definer of style in bushcraft also indicates the development of inner qualities that are suggested by Sennett’s craftsman as developing in an individual who leans towards all-purpose tools. These inner qualities were paralleled by responses to the questionnaire survey where they were identified as patience, perseverance, observation, adaptation, improvisation, humility and curiosity (e.g. Appendix 1.2: Q23). Taken together, they suggest that bushcraft, like craftsmanship, has an inherent ethical stance, a connoisseurship that may edge towards a kind of secular spiritual discipline.

4.3.5 The principle of mend and make do

The survey indicated a strong appreciation of ‘mend and make do’ amongst bushcraft practitioners. This is not only consistent with ‘style’ in the abstract but constitutes a central value in the ethos of bushcraft practice, an element of respondents’ daily lives and an influence on their lifestyle choices. The survey highlighted practitioners’ pride in being able to do more for themselves in everyday life than non-practitioners, by repairing, mending, adapting and reusing (e.g. Appendix 1.2: Q39 and 40). Furthermore, respondents claimed that their practice had made them more likely to engage in problem solving, creative

thinking and finding their own solutions through improvisation, which many claimed became a 'way' of life rather than a series of premeditated acts (Appendix 1.2: Q23).

Unsurprisingly, a large majority of survey respondents gave a positive response when asked if they valued making their own gear (Appendix 1.2: Q39). In particular, the making of gear such as tools, clothing and tents was also held in very high regard (Appendix 1.2: Q40). In response to question 40 of the survey - 'Do you value making your own equipment where possible?' respondents explained:

1. 'Yes – there is the joy of making it as a hobby and a pride in having it, particularly when others ask where you bought it. Best of all is if you can then teach someone else how you did it so they can learn the skills as well.'
2. 'Yes, you learn what it takes to make things and you look after them better.'
3. 'Yes, and the satisfaction from making it yourself is second to none.'
4. 'Yes always. May not work as well but the sense of achievement and connection to our ancestors is stronger.'
5. 'Not necessarily, but knowing how to repair/replace/improvise kit is...'
6. 'Generally yes – it gives greater understanding/appreciation of the equipment, greater scope for repair/improvement, enables customisation, sense of fulfilment.'
7. 'Temporary tools yes – like pot stands, shelter poles, traps etc.'

The ideas of 'mend and make do', of resourcefulness, self-sufficiency, improvisation, adaptation, sustainability, skill in repairing items and the understanding of what can be replaced using the natural world begin to shape what is taken into the natural world by practitioners. These qualities are not only central to bushcraft practice but are values that also form important social capital. For example, status is afforded to those who have the skill, using simple hand tools, to produce a specialist tool such as a canoe paddle using only an axe, a knife and a crooked knife. The same is true for those who can make a knife or can make or re-haft an axe handle or shape, steam and replace the wooden rib of a cedar-canvas canoe and effect this repair over the campfire on the trail. Those who can improvise or repair a snowshoe, or repair a pack basket, while knowing how to select materials and utilise the affordances of the local ecology in the

context of a journey are valued. Skills such as these also impact on choices concerning what practitioners bring, where they will go and how they will travel; based upon these core skills, they increasingly reject the use or fetishisation of technology in favour of reliance upon their own skill. As Mears explains in a short film by Iromoto – *We Belong To It* (Iromoto 2015):

> There is an aesthetic to bushcraft, I think, that is really important: things done well look right. And there is a delicacy, and I think it's a thing that the woodsman knows – that you make it just strong enough, not too strong, not too weak – just right, and that demonstrates your knowledge and understanding of the materials you are working with…. It's all part of the self-reliance that is at the core of bushcraft – if I damage it I can repair it, and if I break it I can make another one, and when it is worn out it can be thrown into the forest and nature can have it back. That to me is perfection... And then I realised that learning those skills was interesting in its own right.

This combination of tangible and intangible values suggests that, in bushcraft, ethics and aesthetics are one. This is a view consistent with a particular strand in the history of Western aesthetics. We see it, for example, in the appreciation of Shaker material culture, which combined simple geometry with spiritual vision, and in the British Arts and Crafts movement. In the bushcraft context, the reward for getting, for example, the North Woods paddle stroke right or for carrying out any part of the practice with fluency and skill lies in both the beauty and the utility of the action and in the deliberate, highly disciplined intention to make it both as beautiful and as effective as possible. This amounts to a minimalist approach, therefore, which suggests that ethics and aesthetics are united by an ascetic intention. Sennett (2008, pp.144–145) translates concerns such as these into a political concern in which 'the craftsman is a more inclusive category than the artisan: he or she represents in each of us the desire to do something well, concretely, for its own sake'. Sennett provides an account of historical change in the status of the craftsman which reflects what Braverman (1974) calls 'the degradation of labour' – that is, the process of divorcing craftsmanship from craft and its rationale in order to develop mass production and the relatively unskilled labour supporting it – and comes to focus on what he terms 'material consciousness'.

In addition, the general bushcraft survey also revealed that practice transformed the way practitioners perceived the world. These common themes

were reported in response to survey Question 24 (Appendix 1.2: Q24), which asked: 'Are there ways in which bushcraft has influenced or entered your daily domestic life?' Responses suggested that bushcraft practice transforms people and their perception and treatment of the natural world. For example, answers included:

1. The way I look at plants and wood when I'm out and about.
2. It has helped me to slow down and look for the little details.
3. It's made more aware, more observant, more self-reliant. Better at improvising. Better at adapting or making stuff rather than buying it.
4. Where do I start...! It probably affects everything in my life.
5. I'm much more aware of my surroundings and the changes of the weather and seasons.
6. I look at things differently e.g. see a tree in a park and think that would be good for making something.
7. Yes - it has changed my whole philosophy on life, and on nature.
8. Yes. I pay more attention to my environment and appreciate nature more in the city.
9. A greater appreciation of the weather and changing seasons. Taking notice of the world around me. I am more aware of where my food comes from.
10. It changed my life
11. Enriched my daily awareness and enjoyment of the natural environment.
12. Yes even when I go for short walks I am more aware of wildlife and the natural world in which I live.
13. How we see the countryside where we live.
14. Although I don't practice much of the skills I learned, bushcraft has had a huge impact in my daily life. After completing a bushcraft course last year my outlook on life has changed. I'm a lot happier now than I have ever been. Not taking more than I need is how I like to live my life, and this works in all aspects of life.
15. I have become more aware of my surroundings, I see the potential in natural areas, and I am more concerned for my environmental impact. I find that bushcraft isn't just about what is outside of us - it is also a part of ourselves.
16. Every day I have a greater awareness of the environment around me, I notice plants and animals daily which I was blind to previously.
17. It changed my view on the world around me.

This revealed that bushcraft influenced not only the wilderness and outdoor experiences and lives of practitioners, but also their daily domestic lives. In this way the natural world became alive with use potential, which simultaneously evoked sustainability stewardship, and affected problem solving and improvisational capacity, and on achieving increased levels of recycling, reuse and general sustainability. For example, further responses to the same question included:

1. It's overtaken my life! Constantly looking at trees and plants all the time for their uses.
2. I always find myself thinking, "Can I eat that plant?" or try to improvise with what's around me.
3. When using bushcraft you have to adapt to the environment and make use of the materials to hand. In my day-to-day life since going various courses/expeditions I have become very conscious about recycling and making use of simple things that normally I would have thrown away.
4. I'm always on the look out for something useful
5. Yes. Many of the items in our home are collected or constructed directly from nature, from decorative items to kitchen spoons. The emotional/mental/spiritual benefits of bushcraft improve nearly all aspects of my life.
6. Fire-lighting skills in the fireplace - I don't use matches anymore! Foraged foodstuffs when possible – on a weekly basis.
7. Increased use of 'wild' food (plants and animals)

Bushcraft practice not only transformed people's perception and experience of wild nature, and was not only experienced or practiced as an activity to be carried out in a wilderness place, but the transformation was deeper and of more personal type, such that for some it 'changed their view of the world' in a way that profoundly affected the way in which they conducted their everyday lives, and the choices that they made about how to live a 'happy' and 'good life'.

In sum, the bushcraft scene gives rise to a distinctive style that denotes affiliations and resistances apparent not only as external choices in clothing and equipment but as a set of personal qualities and craft values and practices. Taken together, these provide a unified ethic and aesthetic that is both minimalist and interpretable in political terms. Unsurprisingly, a particular identity as educational practice forms an important part of its theorisation.

4.4 Theorising bushcraft discipline as educational practice

The previous section establishes some indicators that help us understand the meaningfulness of bushcraft to its practitioners in the modern world. These suggest that the perceptions and procedures of bushcrafters are linked to notions of indigenous knowledge through three kinds of relationship: 1) a primitivistic, romantic and symbolic archetype of indigeneity, 2) as a source of practical knowledge and skill, and 3) through particular qualities and values central to their practice.

Despite its public recreational and commercial identity, bushcraft in the West today, no less than in its past, exists most vitally as an educational practice. Whilst most bushcraft education takes place outside the academy or formal schooling, its contemporary organisation tends to focus on contexts in which people are teaching and learning. This is evident historically in early self-help manuals such as Galton's *Art of Travel*, in 'schools' beginning with the British 'School for Colonial-Craft', in the educational structures of youth movements such as Scouting, in radical/progressive schools' curricula of the early twentieth century such as the role of woodcraft in the 'Forest School', within military instructional manuals and as practical 'survival training'. This educational emphasis is reflected today in the proliferation of bushcraft 'schools'. In 2015 there were eighty-plus commercial schools in the UK and approximately two hundred in the USA. The same emphasis is also reflected in the wide range of literatures on which bushcraft education draws. The strongest and most overt dimension of modern bushcraft is, therefore, the relationship between teacher and learner.

4.4.1 Bushcraft's founding fields

Chapter 2 demonstrated that ethnographic recording of indigenous knowledge, not in a value-free way but carrying the weight of a European colonial gaze, assumptions and appropriation, allowed indigenous knowledge to be exploited as a resource for colonial military and commercial expansion. That expansion had two main expressions: the Woodcraft of the Trader/Explorer and the Fieldcraft of the Military/Guerrilla. Chapter 3 went on to show how bushcraft arose, as wilderness survival guides emerged, military campaigning spawned civilian camping and a sentimentalised view of the natural world arose. This process crystallised as two streams of practice in youth education, namely Seton's Woodcraft and Baden-Powell's Scouting. Both could be morally politicised or fantastical, but it is at this point that a clear ideological difference is evident. While Seton's ideology was one of living in nature, studying it and crafting with materials taken directly from it, Baden-Powell's ideology was founded on survivalism, militarism and imperialism.

The historical and ethnographic data, taken together, indicate that the modern information-base of bushcraft is firmly rooted in three broad, interrelated

fields: military survival training (MST), indigenous knowledge (IK) and wilderness recreation (WR), each of which has their origin in the colonial project. Figure 4.1 models these overlapping relationships and, thereby, problematises the link between traditional ecological knowledge and contemporary post-colonial, post-Western, post-industrial cultures.

All four areas (Bushcraft, MST, IK, and WR) are geographically located in the same places – the specific biome, whether arctic or arid, temperate or jungle – where their activities take place. Their shared information-base, therefore, is necessarily supplied by the location itself – its flora, fauna, weather, accessibility and other affordances for living in and moving around that landscape. The specific practices, social worlds, scenes, purposes, material cultures and values are quite different for each area, however, linguistically and politically. For example, 'indigenous knowledge' is not a category created by those who possess it, nor is 'indigenous' their term for themselves: both belong to the languages of colonial conquest and commodification. Clearly, so-called 'indigenous' people have activities that may equate to 'recreation' or 'military survival' but these are parts of their whole experience, of play, life and conflict, which they express in their own terms. Similarly, each other grouping define itself in its own way so that, while MST may take place on the same Welsh hills at the same time of the year as WR, participants are not likely to confuse one with the other. However, this taxonomy does demonstrate the complex borrowings of MST, WR and IK in the formulation of Bushcraft and suggests the transformative nature of these re-purposing's.

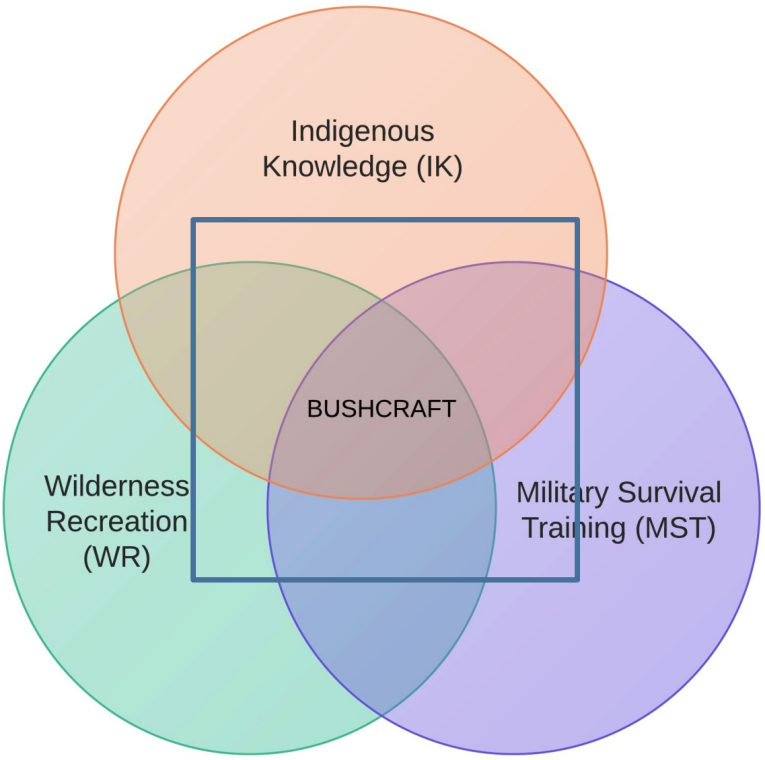

Figure 4.1: Bushcraft and its cognate disciplines.

Thus, although the information base for bushcraft is held in common with IK, MST and WR, ideology and culture are quite different. Practice is 'translucent' across all four areas, that is, in a mediated relationship rather than a direct one. Accordingly, bushcraft's relationship to IK is mediated by its relationship with the other two activities. For example, woodcraft and scouting first arose from a relationship between European colonialism and IK that produced the hybrid frontier culture in America from which woodcraft and scouting arose as new categories of European knowledge, substantially drawn from and influenced by IK. The intersections in Figure 4.1 show, for example, that where WR and IK overlap, we find Woodcraft. What appears to emerge in contemporary practice is a series of activities located at the intersections of the three categories from which bushcraft originates (Figure 4.2).

These diagrams indicate that bushcraft is at the centre of a complex set of intersections, rather than being a single defining movement. The contemporary transformations of bushcraft foreground its relationship to youth movements (both new initiatives such as the contemporary Forest School movement and long-standing ones such as Woodland Folk) to popular media

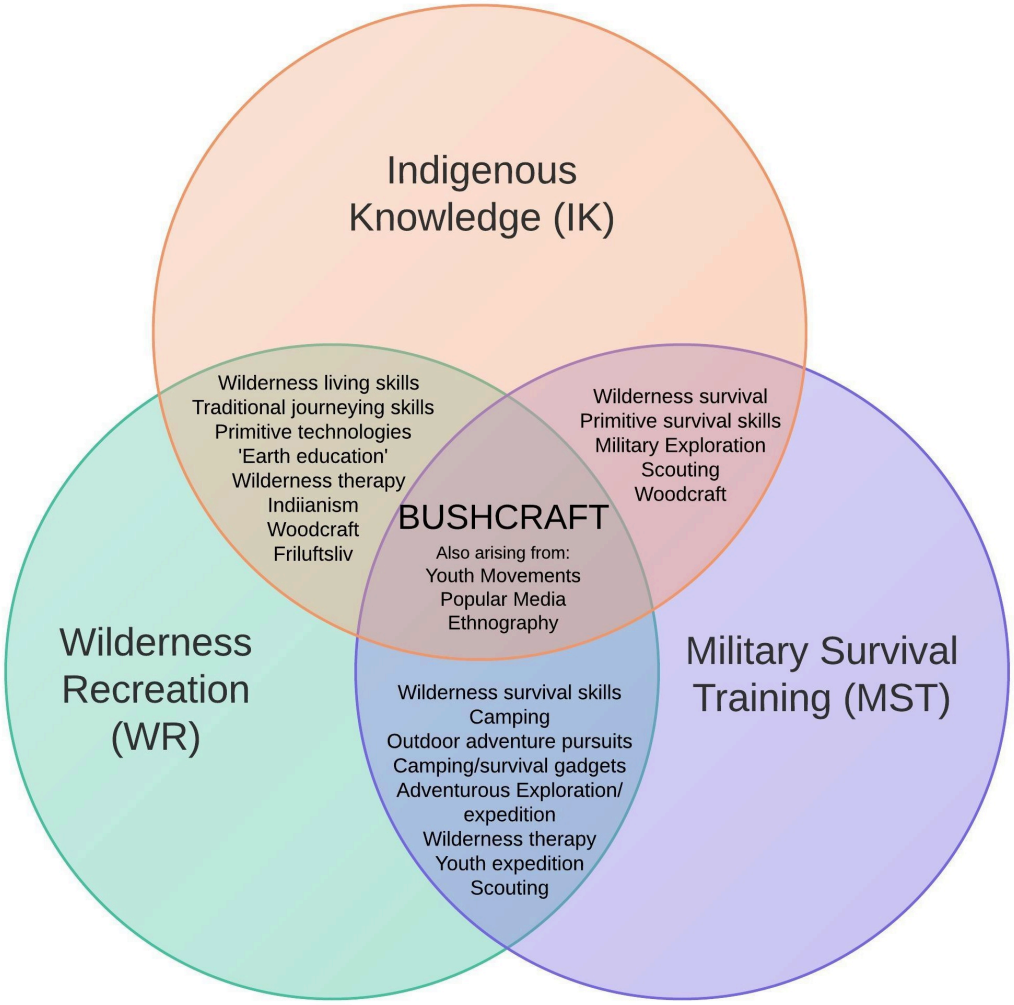

Figure 4.2: Diagram showing the contemporary activities constituted in the third spaces where disciplines overlap.

(both as documentary and as fantasy 'survival television'), and its enduring association with ethnography. This latter association is evident both as a pragmatic preliminary training for ethnographers travelling to remote territories, as the codification of IK for co-option by bushcraft enthusiasts and, as a topic of academic inquiry.

4.4.2 The relationship of bushcraft to the academy

Despite its clearly educational features, the relationship of bushcraft to formal schooling is problematic. This uneasy relationship is evident in the first few lines of Mears's popular text *Bushcraft* (2002). Here, Mears alludes to the relationship between bushcraft and academia from the outside, when he depicts bushcraft as 'a huge tree that branches out in many directions to botany, zoology, craft work,

outdoors leadership and many other divisions' (Mears 2002, p. 1). Using this analogy of a tree, Mears (2002) locates bushcraft as a 'whole' organic entity that exists outside the academy while simultaneously reaching into the fragmented disciplines or 'parts' of the academy. Thus, whilst elements of bushcraft knowledge relate to a range of academic disciplines, it is not characteristic of the fragmented, archived knowledge of books or of laboratories but rather, like indigenous land-based skills, is firmly rooted in practice, finding itself in the problematic, real-life, complex, messy experience of living in close relationship to the environment and travelling within natural habitats and terrains. It is knowledge that must be experienced directly to be learned and 'is not separated from practical life' (Maurial 2002, p.63). Maurial further explains this by saying:

> In the microscope the plant loses its relationship with the world, the society of plants, animals, and human society. At that time knowledge is reduced and fragmented. This is a given in an education in schools that strongly divides knowledge into disciplines (2002, p.66).

She further highlights the difficulty of locating the holistic knowledge of IK within the academy when she says:

> …indigenous knowledge is holistic. Ideas and practices are one. There is no division among "disciplines of knowledge." What western thinking calls "religion", "law", "economics", "arts" etc. are united in a whole entity of worldview….the holistic basis of indigenous knowledge is produced and reproduced within human relationships as well as in relationship with nature. (Maurial 2002, p.63)

Maurial's concern with the academic fragmentation/atomisation and insulation of knowledge from the practical messy settings of 'real-life' reveals her understanding of the holistic and integrated nature of indigenous knowledge. Bushcraft faces similar problems to those of indigenous knowledge in relation to the academy, which suggests a shared standpoint.

An important strand of inquiry, therefore, is into the nature and processes of bushcraft education. However, the web of affinities, developed both through bushcraft's three 'founding fields' and through the 'third spaces' at their intersections, suggests that contemporary mainstream educational activity may not provide easy or direct parallels for bushcraft education. In fact, it could be said that 'married to the knowledge of materials, it produces a working

knowledge that stands in stark contrast to the working knowledge produced by formal education' (Pálsson and Helgason 1998, p. 909). Bushcraft's type of learning is typically experimental and hands-on; it is experience and direct observation that is located in particular ecological settings that are most required.

The normative idea of teaching and learning, or 'transmission' of knowledge between individuals is, as Ellen and Fischer (2013) remark, suggestive of a passive recipient rather than an active engagement. In this formulation, knowledge is being passed from knowledgeable teachers to passive learners who, themselves, are positioned as empty 'vessels to be filled' (Ellen and Fischer 2013, p.4; Reynolds 1981). This normative idea of learning being 'analogous to the amount of liquid that can be placed in a glass' (Pálsson 1994, p.903) has been a concern of educationalists such as Paulo Freire (1970) who calls it the 'banking method' of education and contrasts it with 'libertarian education' and 'problem-posing' approaches to teaching. Freire says:

> Problem-posing education affirms men and women as beings in the process of becoming – as unfinished, uncompleted beings in and with a likewise unfinished reality . . . The unfinished character of human beings and the transformational character of reality necessitate that education be an ongoing activity. (1970, p.65)

Many anthropologists have also argued that knowledge is not simply transmitted from mind to mind, from generation to generation or culture-to-culture or, as Ingold (2011) suggests, it is not passed along the lines of a genealogical model – inherited as a possession or legacy – but rather, knowledge is 'made' in a 'continuous process of becoming' (Ingold 2011, p.238) and a process of shared production 'between people and with the world'. This is especially a concern in studies of professional knowledge and competence, for example, in the work of Michael Eraut (1994) and in the work of Lave and Wenger (1991), highlighting that this is not only a theoretical concern for education but also a very material one.

In the creation of practical knowledge of the environment, then, much knowledge is 'substantive', that is, while it may be complex it is also tacitly held, its acquisition not so much relying on language as on performance (Ellen and Fischer 2013, p.17). In the influential work of Pálsson concerning how fishermen perform at sea in becoming 'enskilled', he remarks that the normative approach

to learning entails a mental script that exists prior to and independent of human action (Pálsson 1994, p.903). In this way, the 'Western tradition of knowledge transmission is preoccupied with analytical and theoretical ways of knowing, *episteme*, whilst at the same time devaluing practical and contextual knowledge and learning, *techne*' (Pálsson 1994, p.903, original emphasis). Pálsson further suggests that 'the normative view…misconstrues the essence of the lived-in world, failing to capture what it means to engage in a skilful act, the "feel" for the game' (Pálsson 1994, p.903). Pálsson highlights the importance of constructing a third kind of knowledge, one which conveys 'the essence of the game from the point of view of the player' since, 'while rules and representations are relevant for the participant – the player – they are not what learning is all about'. Thus, in Pálsson's view, knowledge can be divided into: knowledge that constitutes the rules of the game; knowledge required to follow the game; and the essence of the game from the point of view of the player. One might then see how the 'rules' constitute episteme; how the 'knowledge' constitutes techne; and how the 'essence' is not accounted for in a normative approach. This, I suggest, echoes concerns in Puri (2013, p.267) and Marchand (2010, p.S3) who highlight that, although studies of knowledge and its transmission between individuals, generations and cultures occupy a central and ongoing theme within social and cultural anthropology, 'most anthropological analysis falls short of explaining how knowing, learning and practice actually occur, take place and continually transform with situated bodies and mind' (Puri 2013, p.267). This echoes Ingold's point that, whilst rules can help in the beginning, skill emerges where the rules can be abandoned, so that rules and representations 'are like the map of unfamiliar territory, which can be discarded once you have learned to attend to the features of the landscape, and can place yourself in relation to them' (2000, p.415). The aim, then, is relational: 'to learn the country, not the map' (Ingold and Kurttila 2000, p. 415).

A formulation similar to Pálsson's rules/episteme and knowledge/techne contrasts is provided by Playdon (2011) in the context of medical education and practice. Her approach shares similarities with skipperhood and bushcraft in terms of the need for medical practice to be adaptive and responsive and in terms of its occurrence in real-life contexts. It reflects the same rules/episteme structure but extends the idea of knowledge

beyond that of the culturally transmitted stock of knowledge comprised by techne. It is subsumed into the individual's embodied, contextual learning that can only be gained by forming relationships with people and places – gnosis – and which also accounts for the 'essence' described by Pálsson as 'phronesis', learning which can only be gained over time (knowledge as process, rather than knowledge as a thing to be known) (1994). Phronesis, then, equates to Pálsson's essence, meets Polyani's concern about how skilfulness occurs and exemplifies Ingold's concept of person and tool becoming porous to each other in an unbounded relationship in which people 'pour ourselves into them and assimilate them as parts of our own existence. We accept them existentially by dwelling in them' (Polanyi 1958, p.59). Educationally, then, these expressions of gnosis accord well with Conover & Conover's earlier comment concerning tools, technology and technique, namely that 'the axe is liberating, a tool of self-reliance, engagement and growth' (2006, p. 105), which echoes Freire's concerns for libertarian education, in contrast with the camping stove that only requires episteme to operate and is suggestive of a passive recipient rather than an active engagement.

The primary tool of bushcraft practice – the simple bush knife – is the first tool that the practitioner learns to use skilfully. Perceived as the defining tool of the woodsman, this relationship between person and tool is reflected in popular sayings such as: 'Your knife is your life', 'a good woodsman is only as sharp as his knife' (Mears 2002, p. 24); 'never lend your knife: a damaged knife may result in a broken friendship' (Mears 2002, p. 21). Thus, the primary skill of safe effective knife use is where every learner begins. Manuals and educators alike furnish learners with fundamental advice: never cut towards yourself; always sheath your knife when not in use; never stick your blade in the ground; always keep your knife sharp – a blunt knife is a dangerous knife… and so on (eg Mears 2002, p. 21). These fundamental 'rules' thus form the fundamental 'always and only' beginner end of bushcraft knowledge. Furthermore, according to Playdon, this 'always' sheath you knife and 'only' cut away from yourself approach to teaching epitomises a training environment; it is the 'episteme, therefore [that] is [the] kind of knowledge that is most amenable to training approaches. It does not need a rationale, because it is to be learned as axiomatic, as a matter of fact' (Playdon 2011, p.32).

Some practitioners are content to discontinue their learning at this stage of episteme, exemplified by, or often producing, Pálsson's fetishisation of gear and gadgets. Using the case of Icelandic fishermen, the problem of tools and technology in relation to the individual is well captured by the distinction Pálsson makes between those who fish 'by skill' (dexterity) in contrast to those who fish 'by force' (power) (Pálsson 1994, p.910). 'The skilful skipper attends to his fishing technology as if it were an extension of his person; the novice in contrast focuses upon the gear itself – fetishizing his gadgets' (Pálsson 1994, p.910). The former, who assimilate technology or pour themselves into their tool as part of their personal skill, are the ones whose dexterity and skill is applied 'attentively' to the task at hand, reflecting the importance of Gibson's 'education of attention' (1979, p.254). This approach is contrasted with that of the latter, those who fish by force, usually novices, whose focus is upon technology, gadgets and gear itself, on which they focus their attention in the hope that technology rather than skill will bring success. In this way technology and tools become not porous but fetishised (Pálsson 1994, p.910).

To the ancient Greeks techne meant the kind of art, skills or technical ability that we associate with craftsmanship (Ingold 2001, p.17; Ingold 2000, p.294). From episteme learners develop into techne and practitioners, at this stage, symptomatically display their accomplishments. In bushcraft practice this element of 'display', most visible at public bushcraft events, may refer to a stage at which practitioners are keen to demonstrate technical accomplishment with a knife and axe. For example, carved items such as wooden spoons and 'kuksa' provide a visible demonstration that their episteme has developed into techne, thus gaining them status associated with their skill. A well-crafted spoon or kuksa, hanging from the belt or the backpack of the bushcrafter or displayed on the stand of a commercial school at a show or event to advertise competence, implies the ability to keep a blade sharp and conditioned and to use it safely. It also demonstrates a knowledge of materials in relation to selecting, harvesting, shaping and cutting them, and the potential to use it creatively and with imagination, for example, to visualise the spoon in the wood. In other words, it shows 'an ability that depends upon the craftsman or artisan's capacity to envision particular forms, and to bring his manual skills and perceptual acuity into the service of their implementation' which conjures an 'image of the artisan,

immersed with the whole of his being in a sensuous engagement with material' (Ingold 2000, p.295). This is what Pálsson is describing when he quotes Polanyi: 'as we become skilful practitioners we assimilate technology as a part of our own body' as tools become part of 'ourselves, the operating persons' (Polanyi 1958, p.59). These aspects of episteme, techne and gnosis are well represented in Mears' discussion of the use of the knife for carving:

> The knife being well used is a joy to behold: the transformation of a piece of wood into a tool is magical and the smooth cut marks are pure art. But to achieve such skill requires patience, practice and familiarity with fundamental safety techniques. Every piece of wood has a grain structure that determines its strength and performance in a range of tasks. The structure varies from species to species: one wood might suit a task that requires flexibility, while another might be resistant to splitting. The grain structure will affect the ease or difficulty you will experience in carving the wood: in learning to understand its behavior, you will become able to predict the wood's likely response to carving. Then you will carve more easily, the grain assisting you. (2002, p. 22)

When Mears suggests that 'the knife being well used is a joy to behold' and that 'the grain will assist you', he signals that the woodcarver has not only acquired knowledge and familiarity with fundamental safety and technique, but has begun to understand the behaviour of the wood in order to begin to predict its response to the actions of the carver. He has thus entered into a relationship with his tool and with the material he is shaping. Rather than imposing his design upon the wood, he listens, feels, predicts and looks for the idiosyncrasies that the wood's grain reveals to him. This is suggestive of an inter-subjective relationship – gnosis – knowledge acquired from being in a relationship with something, rather than knowledge about something, so that the quality of the knowledge depends upon the quality of the relationship (Playdon 2011, p.34). Moreover, gnosis suggests that the ability to enter into inter-subjective relationships with localities is enlarged by practice, so the practitioner becomes increasingly flexible, sensitive and responsive to new environments, developing his/her ability to improvise and thus to be able to travel to other localities.

Aristotle gave the name phronesis, meaning 'judgment', 'prudence' or 'practical wisdom' to a further type of knowledge, one that arises from this complex interplay between episteme and gnosis; it is 'the ability to visualise ends, means, and consequences, to relate them to moral lawfulness and to choose

rightly' (Playdon 2011, p.31). Thus, phronesis is ethical practice that arises from gnosis and episteme which are held together to meet the needs of a particular context, as praxis, in Heidegger's formulations (Playdon 2011). It therefore emphasises practical knowledge and practical ethics, and is both exterior and interior praxis which, according to Aristotle, is principled action to engage uncertainty (Playdon 2011). Pálsson (1994) provides an example of the provisionality of phronesis required by skippers in judging where to fish. Skippers say they solve this dilemma 'by a strange message or intuition, some kind of "whisper"' explained by them as 'knowledge in the head' or 'thinking like a fish' or 'wisdom carried in the blood' and 'unexplainable bodily judgment' (Pálsson 1994, p.919).

4.5 Travelling knowledge: nomadism and hybridisation

The origins of bushcraft lie in colonial and military expansion, in long-distance travel and in the adaptations of traditional ecological knowledge that these required in order to provide food, shelter and transport. While contemporary British bushcraft is primarily a personal practice visible in static performances and public demonstrations for educational purposes, an interrogation of its relationship with traditional indigenous knowledge reveals bushcraft as living and fluid, grounded both in local traditional knowledge about woodcraft and naturalist study. Mears says:

> Bushcraft is a knowledge of nature that enables you to travel safely and relying upon nature to some extent for your sustenance and self support. It's the knowledge that our ancestors had; it's the knowledge of First Nations – knowledge that's not just ancient, but it can be modern as well – new knowledge, new understanding, so it's a blending of old and new. But, at its core is a love and understanding of nature. (Iromoto 2015)

However, while the 'knowledge of First Nations' is always and only rooted in and developing from a specific location, bushcraft seeks to draw on knowledge from that embedded location to transform it into a knowledge and practice that is more universal and able to travel. Yet, this is only successful when it is acknowledged and accounted for, that is, when the embedded knowledge is used to scaffold across to another context, where, for example, the flora may be different but similar enough in its inherent qualities to enable techniques to be

adapted and used. Thus, as practitioner's travel further from home and the landscape becomes increasingly unfamiliar, their available knowledge decreases and so they seek to augment their knowledge and make a new relationship with a new environment. Much of the knowledge they are able to use in new environments may not be visible, tangible knowledge at all but might instead be reflected in decision-making and the 'impermeable' internal qualities, guiding principles and practical wisdom they have developed through their practice. This suggests what Braidotti (1994, p.25) refers to as a 'nomadic consciousness' – utilising 'travelling knowledge' in which the practitioner accepts the fluid nature of their praxis as they move location and continually adapt to changing contexts:

> Being a nomad, living in transition, does not mean that one cannot or is unwilling to create those necessarily stable and reassuring bases for identity that allow one to function in a community… Rather, nomadic consciousness consists in not taking any kind of identity as permanent. The nomad is only passing through; s/he makes those necessarily situated connections that can help her/him to survive, but s/he never takes on fully the limits of one national, fixed identity. The nomad has no passport – or has too many of them. (Braidotti, 1994, p.33)

Thus episteme remains a fundamental building block of practice but it is open to adaptation (e.g. making fire with new materials) while gnosis is made anew in different ecologies. This nomadic response to practice was highlighted during an interview with Swedish professional practitioner, Juha Rankinen, who identifies 'journeying' as being the living location for skill:

> I think that the overlap [between IK and bushcraft] first happens within the skills themselves since indigenous knowledge and skills are transferred to and taught in bushcraft settings. Secondly, the overlap develops as the participant in bushcraft starts to use the skills in reality – in the context of a wilderness journey, for example. The reality of the context is an important part of the experience and brings back the functionality to the skills. Thirdly, as you become really good in a skill you can drop the basics, and that´s when you start really *using* the skills. With experience of using the skills in the reality of a journey you can start to focus on the landscape instead, which will further your skill and bring in other aspects of indigenous knowledge. As I see it, indigenous knowledge isn´t just the skill, it´s also the way you see the world (Rankinen, interview 12th July 2012).

Here Rankinen also strongly locates the functional context of bushcraft skill in journeying where one begins to leave behind the 'always' and 'only' rules of episteme and enters the uncertainty and unpredictability of nature as the interlocutor that one cannot control, thus requiring that the individual enters the

conversation of gnosis, 'using the skills in reality' – that is, intersubjectively with the changing landscape, rather than mechanically in the more predictable static setting of a base-camp where many practitioners begin their learning. This is where Rankinen locates the most vital link between bushcraft and indigenous knowledge – in the transfer of techne to the changing environments of the journey in which one must become open and attentive to the landscape and its affordances. The relationship with landscape that comes with growing experience supports the development of an interior praxis, entry into an ethical consciousness, a 'way' to see the world that Rankinen likens to 'other aspects of indigenous knowledge'. This is a cumulative movement from episteme, through techne and gnosis, to an arrival at the ethical wisdom that is expressed practically by phronesis. Thus, at its best, one is able to take the focus away from episteme and techne and enter gnosis and the prudence and ethics of phronesis enabling the versatile adaptation of episteme, techne and gnosis to new ecologies.

When professional practitioner, Stuart Goring, suggests that bushcraft has evolved from 'the adoption of traditional skill sets without the adoption of a traditional mind-set' (Stuart Goring, interview 8th August 2015) he is delineating a fear-based, survivalist ethic whilst also pointing to a fundamental aspect of bushcraft – that is does not seek to adopt indigenous cosmology or 'mind-set':

> When people come into the jungle they regularly want to learn how the locals navigate – how do they find their way in this difficult environment? But, what they can't seem to grasp is that the local people have no special navigational skill for getting through the jungle. When the military teach jungle navigation they endlessly pour over maps, and they develop techniques such as 'dead reckoning' to try and figure out where they are going, but the locals don't do this! They sort of say well we will go somewhere in that direction and off they go…and you say but what if we get lost, and their basic response is 'what difference does it make?' Everything we need is all around us, it's all 'home'…and if we pass too much to one side or the other, well, we run into people every few days and they will tell us'. But the local people have absolutely no fear of the environment they are in and so there is no problem in being 'lost' in it, whereas we Westerners need to feel a tangible link to our start point and our finish point at all times because we are not capable of surviving or being at ease in the forest on its own. So we feel like we are delving into it, but we must be able to get out….and it's like the minute we walk into a forest we have this clock counting down to when our food runs out.

Here Goring reminds us not only of McLaren's concern, outlined in Chapter 2, with respect to the perceptions of Western explorers and Aboriginal guides in wayfinding skills, but also highlights the Western anxiety about

survival as a direct product of the person's incapacity to be 'at ease in the forest' so that gnosis, and its development as phronesis, are unavailable. It is replaced by a feverish attempt to create a Westernised episteme that will support a Westernised techne – not a 'we will go somewhere in that direction' practice but a set of definitive rules for always knowing precisely where you are and the one, true path you must take. This militaristically orthodox mind-set provides a startling contrast to the ethos of indigenous knowledge and a useful way of distinguishing between bushcraft's appreciation of gnosis, and survivalism's focus on episteme. Gladwin (1964) similarly compared the navigational techniques of Trukese sailors with the navigational strategies of European navigators. Indeed, Berreman (1966), following Gladwin (1964) says:

> The Trukese navigator begins with an objective rather than a plan. He sets off toward the objective and responds to conditions as they arise in an ad hoc fashion. He utilizes information provided by the wind, the waves, the tides and current, the fauna, the stars, the clouds, the sound of the water on the side of the boat, and he steers accordingly. His effort is directed to doing whatever is necessary to reach the objective. If asked, he can point to his objective at any moment, but he cannot describe his course. The European may not know where his objective is relative to himself at a given moment, but he knows his course and can quickly compute his location on the course. (Berreman 1966, p.347)

Thus, for the Trukese, practical wisdom and 'decision making is continuous, accommodated to winds, tides, ocean currents, and so on' (Pálsson 1994, p.906). However, the technologies they use and their psychological application, Pálsson – following Gladwin – tells us, cannot be understood as separate from the way of life in which they are embedded. While the pre-planned and carefully constructed strategies of European navigators enabled them to describe their intentions easily in words, for the Trukese navigation is situated, context responsive, adaptive and intuitive. They are not able to provide a set of instructions for navigational techniques, nor easily able to verbalise the 'subtle and complex' navigational knowledge it takes Trukese an entire apprenticeship to learn (Berreman 1966, p.347). Thus the European system is based on a universal principle, whereas the Trukese system is based upon interpreting cues and signs in the landscape and weather-world and responding with prudence to them as they arise.

In this type of learning the individual gains personal experience and uses her or his senses in relation to the environment. In this context the cumulative body of knowledge, both collective and individual, derives from individual special skills and praxis – what we might call the construction of enskillment (Ingold 2001; Ingold 2000; Ingold and Kurttila 2000; Pálsson 1991).

All this suggests that, whereas indigenous knowledge is local, bushcraft has global pretensions. We might say that practitioners relate to a series of ecologies and indigenous knowledges as transnational, transecological praxis. Bushcraft then is nomadic; it arises in the history of explorations and adventure travel; it responds to a range of ecologies and, at its heart, lays the notion of the journey or pilgrimage in nature. Thus, a fundamental part of its praxis is to adapt as necessary and the people from whom practice is adopted, as required, are those who live directly in relationship with a particular ecology or have chosen a deep focus on a specialist skill from which the practitioner can learn, such as hunting, foraging, shelter-building or fire-making. The practitioner learns from both skilled specialists and from the ecological knowledge of ordinary people. It is both locally embedded and universal, both situated and itinerant; it is highly adaptive and utilitarian, and practiced most vitally not in the recreational environments of UK bushcraft meets, shows and static courses, but during actual travel in remote locations. It does not depend upon a staged set of sequentially performed, pre-arranged actions but on adaptability, improvisational capacity and versatility. Its practices make sense not only as part of a physical journey where bodily comfort, and perhaps survival, depend on the concrete benefits of bushcraft, but also as a psychological journey where the emotional demands for resilience, self-sufficiency and the ability to bounce back are developed alongside an inter-subjective and emotional relationship of 'love and understanding' with nature. This, as Mears suggests, forms the very 'core' of bushcraft practice.

In the context of journeying, bushcraft skills are not ornamental but utilitarian. When it moves from wilderness to recreational space, or from nomadic to static, bushcraft shades back into naturalist knowledge, local knowledge, woodcraft, naturelore, green woodworking and bow-making, suggesting the archetype of Robin Hood whose strength was that he knew every inch of the Sherwood Forest in which he was firmly located and with which his legends are indissolubly associated. A creative tension emerges, therefore, such

that, when woodcraft and naturelore start to travel, they begin to transform into bushcraft. This may occur as peaceable personal exploration and journeying or as part of an organised colonial project, as the development of bush skills in order to travel in and explore alien ecologies. In either case, as you move from place to place, less and less of what worked well in your home location works in the new location, so that there is a gradual stripping down to essentials and a corresponding opening-up of space for learning, devising, improvising, experimenting, adapting and being versatile and imaginative. It is this movement through landscapes that prompts the movement to learn so that the internal transformative process of education accompanies the transforming ecology as the bushcraft practitioner passes across biomes.

In his film *We Belong To It*, Mears (Iromoto 2015) emphasises that bushcraft is not simply a desire to return to a notion of the primitive but, rather, is a 'pragmatic blend of old and new', a 'third space' where values are held in relation to purpose and performance:

> I use and utilise the skills that are appropriate to travel. And there are some modern things that are better than the old and there are some things that are old that are better than the modern, but it is in the harmony of those two things that your journey is smooth.

These features of bushcraft as adaptive practice are characteristic of what has come to be called a hybrid knowledge system. The notion of hybridity fits well with the nomadic, provisional, metamorphic and adaptive features of bushcraft, producing some 'third space of enunciation' (Bhabha 1994, p.37).

4.6 Summary

In this chapter I have explored the relationship between the concepts of indigenous knowledge and bushcraft, and thereby sought to define the identity of bushcraft in the modern world. I have envisaged bushcraft successively as a 'social world', as a 'scene' through surveying practitioners, as a 'style' and as a kind of education. I have identified three transformational processes. The first is the direct transmission of information, epitomised by survival manuals developed, where relevant, from ethnographers and those who have studied the practice of indigenous peoples, such as those produced by Lofty Wiseman and

Ray Mears, and historically by Emory and Stefánsson. The second is the historically located, politically charged, cultural transformations through which colonial activity was justified and enacted, and which has given rise to contemporary post-colonial and post-Western discourses. In this context, 'indigenous knowledge' itself may be seen as a fundamentally colonial term, defining a non-Western set of understandings, way of living and worldview. The third is the personal experience of bushcraft through which its exponents develop, define and find affinities with their practice. The following three chapters will explore the experiences of bushcraft practitioners through the lens of particular emblematic skill constellations, using in-depth case-studies.

Chapter 5 : The Saami Kuksa in Bushcraft Practice

5.1 Introduction 5.2 The traditional Saami kuksa 5.3 Craftmanship, green woodworking and sloyd education 5.4 Kuksa making in bushcraft practice 5.5 What the kuksa case-study tells us about bushcraft practice

5.1 Introduction

The history and data review have provided insights into the process by which bushcraft has developed as a distinct set of ideas and practices. Bushcraft has been identified as a diffuse social world, expressed as a scene, which participants treat as a serious leisure career. I have also discussed its relationship to the academy and the types of knowledge with which it engages, including the development of exterior and interior praxis. However, in order to understand further the practices, processes and perspectives of bushcraft and its relationship to indigenous knowledge, it is useful to examine three case studies of particular skill constellations that represent its most iconic contemporary features. As Yin (1994) points out, the shift from breadth to depth allows previously developed theory to be compared with the results of real-world enquiry, and this is considered to be a major benefit of case study. The following three chapters trace the provenance of each case study item in turn, analysing their meaning and rationale for inclusion in core bushcraft practice. I begin with the 'kuksa'.

Green woodcarver, Ian Tompsett, in his website 'Handmade of Wood', says the kuksa is:

> …A cultural artifact from the Sami people of Lapland [that has] come to symbolise unity between a people and their wilderness. For this reason they have become important worldwide to woodcarvers and employers of bushcraft alike, both for the unique challenge they offer and the connection with a people who are at one with nature. (Tompsett 2014)

Tompsett expresses well the core functions and meaning of kuksa carving within the bushcraft community as: a symbol of unity with wilderness, the particular challenge and demonstration of craftsmanship they engender, intimate knowledge of nature and materials, the personal mastery of simple hand tools for shaping natural materials in the field rather than in the workshop and craftsmanship values and aesthetics. Kuksa also hold meaning for practitioners in terms of comfort in wilderness, notions of nature as home – a working knowledge of the land and their 'connection with a people who are at one with nature'

(Tompsett 2014). I argue in this chapter that, for practitioners, owning a kuksa that is self-made with simple hand tools demonstrates their knowledge of tools and a direct relationship with materials and landscape, their development of inner personal qualities for skill acquisition and the embodiment of knowledge. It typifies bushcraft's relationship with indigenous knowledge. I describe how practitioners do not seek to be 'like the Saami' in an Indianist sense of mimicry but, rather, seek something of Saami-ness, of an 'authentic' and 'indigenous' connection to landscape and nature. This arises from their own situatedness in a similar landscape and their deployment of personal land-based skills using Saami models of material culture – the kuksa – as scaffolding for individual exploration and transformation. I also discuss the relationship of craft making to progressive education, such as is found in Scandinavian 'educational sloyd', a pedagogical system of manual training (Thorbjörnsson 2006).

I examine the Saami kuksa as an example of a local indigenous land-based practice and a 'traditional' cultural artefact that has recently become both co-opted and transformed by the global bushcraft community and has thereby acquired new meanings. The kuksa has, in the past decade, developed strong associations with global Western and contemporary bushcraft pursuits and practices. This enquiry asks how and why the kuksa has become iconic of Western bushcraft practice. Furthermore, kuksa carving, like other aspects of greenwood working has become a kind of craft-making tourism that embodies a particular feature of bushcraft practice and is pursued as a serious leisure activity by enthusiasts. It contains notions of craftsmanship and authenticity while highlighting values that underlie the tool culture of bushcraft. Stebbins (1982) differentiates serious leisure from un-serious leisure through requirements such as 'significant personal *effort* based on special *knowledge*, *training* or *skill,* and sometimes all three' (Stebbins 1982, p. 265 original emphasis). In addition he highlights eight *benefits* discovered by individuals who perform serious leisure activities: 'self actualization, self-enrichment, recreation or renewal of self, feelings of accomplishment, enhancement of self-image, self-expression, social interaction and belongingness, and lasting physical products of the activity' (Stebbins 1982, p. 257). The making of a kuksa may represent all eight of Stebbins's benefits.

The kuksa has recently been adopted from Saami and Scandinavian folk traditions into bushcraft practice. Its re-contextualisation and transformation as a

traditional cultural artefact into modern global bushcraft practices has come to represent a type of authenticity for bushcraft practitioners who, through the adoption and crafting of a kuksa and the accomplishment of associated *techne*, may identify themselves as a competent and skilled member of the community. In his BBC 2 television series *Ray Mears' Bushcraft* (2004-2005), Mears was observed using a kuksa to drink river-water in Swedish Lapland ('Sweden' 2005). Here the kuksa is clearly related more to the surrounding wilderness and to bushcraft practice than to the culture of the Saami people who are featured separately, later in the programme. However, the kuksa, whilst most often traced to Saami culture, is also a popular item in Scandinavian folk culture more broadly; it is, therefore, difficult to discern a clear traditional origin. The use and production of a self-made kuksa represents a guiding symbol for authentic wilderness skill, belonging and competence – a romantic or nostalgic imagining and a connection of the self to wilderness. The research showed that for those that self-make a kuksa by hand an authentic, place-based and personal relationship of the self to body, tool and natural environment is developed. That is, through the regular use and familiarity that ensues in the process of *enskillment* (Pálsson 1999) with natural materials.

How the making and use of a kuksa hybridises traditional indigenous knowledge and Western bushcraft is illustrated in Figure 5.1. The dominant images in the foreground are of an axe, the pack and the kuksa, while the dominant images in the background are snow and forest, suggesting an association between the foreground and background elements. While the background invites us to question how a person might live and travel in an environment that appears to the urbanised eye to be both desolate and hostile, the foreground provides the answer: through skilled use of simple tools, materials at hand can be transformed into something both aesthetically pleasing and strongly utilitarian, transforming the urbanised view of the background as desolate into one rich with resources. Taken together, these dominant images signify a creative interplay between people and their environment, through which are discovered and developed affordances for living. Moreover, skilled practice is embodied in the individual person rather than in industrial production,

Figure 5.1: Rucksack in the forest – this photograph portrays iconic features of bushcraft culture, with axe and kuksa hanging on the exterior for easy access and ready use (Source: Chad Von Lind, 2012).

and the individual's cultural and transformative skills stand out against an otherwise unpeopled forest.

5.2 The traditional Saami kuksa

The cultural production and use of a hand-carved wooden cup or drinking vessel has no narrow temporal or geographical range. Although the Saami kuksa takes a specific form and style and uses particular materials, it is of a type that is found more widely. Many cultures use wood and simple, portable hand-tools to make vessels from which to drink.

The kuksa belongs to the traditions of the cultural group generally referred to as Saami (the Lapps). The Saami are the indigenous people who traditionally inhabit the very northern parts of Europe, in Sápmi (Lapland), which stretches across the northern parts of Norway, Sweden, Finland and the Russia Kola peninsula. Traditionally a nomadic people, the inland Saami have customarily based their livelihoods upon reindeer herding and coastal Saami groups rely upon fishing. However, there is no general definition of what makes a person Saami. Relevant criteria include where a person comes from, their settlement, language, occupation and the heritage with which they identify (Kjellström 2000, p.22).

The *guksi* (or Finnish kuksa) is a hand-carved wooden drinking vessel and a cultural product customarily associated with traditional Saami culture. However, the *guksi* is also found commonly in northern Scandinavian folk cultural history, and in recent times, it has become a popular souvenir item, particularly produced for touristic purposes in Finland. This could explain why it is the Finnish name kuksa that has become widely adopted within the global bushcraft movement. In the Tornedalen region (the northern border area between Sweden and Finland) this type of cup is known as the Gåsa; in the Lulesami region (an area in north Sweden close to the town of Luleå), the Gukse; and Kåsa in Sweden more generally. All of these are names that refer to the Saami cultural item (notwithstanding regional variations) translated to mean 'a wooden cup with handle to drink from' (Kjellberg 1964, p.24). Here, I use the Finnish word kuksa to refer to the traditional Saami cup due to the widespread adoption of this Finnish term in Western bushcraft practice.

Saami *duodji*[22] describes a centuries-old handicraft tradition in which tools and clothing accessories served a highly functional purpose and in which Saami craftsmen brought together function and art in a refined way to create beautiful works in their own right. These items include knives, boxes, bags, wooden cups and certain articles of clothing. However, *duodji* items were made for practical use as part of the daily lives of the Saami nomads. The kuksa, then, is a type of drinking cup carved in the *duodji* tradition from the *burl* of the birch tree (*Betula* spp.) (Barck and Kihlberg 1981, p.23). The kuksa is described as a *kapusta* [a ladle] and is used:

> …to take fish and meat from a pot. However more common is short handed and round wooden ladle called "kuksa" (kuk'si). The ladle used for drinking (soup and alcohol in some parts) is small, no more than size of ones palm, and equipped with a very short handle. It is made out of curly birch or juniper; often one can see one hanging in a belt of men in Enontekiö. (Itkonen 1948, p.303)

The burl is the strongest wood in a tree, especially if taken from the roots, but most often it grows higher up the tree (Itkonen 1948, p.467). Considered as a deformity on the trunk or branch of any tree, a burl is formed as a result of

[22] The word *duodji* means an act, activity or product, although today it is mostly used to refer to handicrafts. The corresponding verb is *duddjot* meaning to work with one's hands, construct, build.' (Kulonen, Seurujärvi-Kari & Pulkkinen 2005, p. 74).

disturbances to the regular growth pattern and produces a swirling grain with no dominant direction which, when this occurs in species of birch (*Betula* spp.), is sometimes called 'curly birch' by green woodworkers. This curly grained wood is selected in preference to the usual 'straight grained' pattern of healthy wood, as it produces a more durable item with no 'end grain' in the final product. This makes the item particularly robust and less prone to cracking as the end grain is where the wood will likely crack when dried initially or when repeatedly filled with hot water and then dried in the process of use. A birch burl kuksa will last longer than one made from wood with a straight grain and it is expected that a well-made kuksa will last a lifetime. Traditionally, the kuksa was produced by contouring the burl into a rough shape and then carefully drying it to prevent the wood from cracking. It was completed in accordance with local traditions: 'One finishes, more or less, the outer shape of the kuksa before one starts to hollow it out and here one traditionally uses a hollowing-out iron specifically designed by Saami' (Barck and Kihlberg 1981, p.49).[23]

In addition to being made from birch burl, the traditional kuksa made by nomadic Saami were small and round with a rounded underside, with a shape more associated with a bowl than a modern cup or mug. They also had a small handle and the lip of the cup curled inwards (see Figure 5.2a); 'the rounded and soft designs made them easy to pack and store in limited spaces. Rounded objects do not get damaged so easily when packed as objects with corners' (Barck and Kihlberg 1981, p.25). Kuksa, from this practical point of view, are made for a nomadic outdoor life: tough enough not to break easily when being transported and stable enough to place on an uneven forest floor. The wood is also a good insulator, keeping hot liquids warm without either scalding (when containing hot liquids) or freezing the hands or lips as a metal camping mug might in the freezing conditions of northern Scandinavian winters.

Kuksa were also ornately decorated by Saami makers (Figure 5.2b), with designs indicating the local and cultural affiliation of the maker and owner (Kjellström 2000, p.120). A decorative and intricate *doudji* technique called *kolrosing* (a kind of scrimshaw) was employed on objects made of wood, bone or

[23] I am indebted to Juha Rankinen, Principal of the Vildmarks Gymnasiet, Sweden, for this and subsequent translations from the original Swedish.

horn. Using this technique, patterns are first inscribed into the object with a sharp knife and then a black dye made with charcoal mixed with animal fat is

a) b)

Figure 5.2: (a) Left: Traditional Saami Kuksa photographed in the Nordiska Museet, Stockholm Sweden. (b) Right: Traditional Saami kuksa handle decoration detail photographed in the Vesterhiem Museum in Decorah, Iowa. Both photographs used with permission from Jarrod Von Dahl (2012).

rubbed in, which adheres to the previously etched lines so the pattern is clearly visible (Berg 1993).

In Scandinavia today, the kuksa is strongly associated with hiking and can be seen swinging from the outside of adventurer's backpacks. It is closely linked with the Scandinavian love of coffee and is also used for alcohol. Research informant, Juha Rankinen, says '…a kuksa should be self-made or a gift. Factory made shop bought kuksa are not the same, they don't have the same smell or feel somehow'. Rankinen continues that 'the smokey smell of a well-used kuksa reminds me other places and people. It reminds me of journeys in nature that I have taken, and the people with whom I shared the campfire' (interview July 13th 2012). Rankinen also explained that the factory-made kuksa is usually produced from straight-grained wood of either birch or pine and that when a kuksa is made from cheaper materials and sometimes not cured and treated properly, cracks appear over time with the constant changes in temperature caused by use with hot and cold liquids. This narrative of the inadequacy of mass production supports the idea suggested by Figure 5.1 that there is a plasticity and permeability in the relationship between self, body, tool and environment, as well as its intensely personal nature. Rankinen's description of the smell evoking both 'people' and

‘wildness’, and thereby combining them, identifies the kuksa as a material embodiment of the connection between not only urban and natural settings but also between past and present experience and the movement – ‘journeys’ – between them, both physical journeys and emotionally recollected associations. In this way, the kuksa, it might be said, is representative of nomadism; its traditional design features are for travelling in nature, for resting on uneven ground rather than flat surfaces of tables, and it symbolises to bushcraft practitioners their inner and outer journeys through and in the natural world.

A traditionally made kuksa is difficult to find outside Lapland, partly because burls are seldom harvested in the course of modern mechanised forestry. With the introduction of glass, ceramic and metal drinking ware, the art of making *duodji* has become a skilled recreational pastime rather than part of basic subsistence. As *duodji* artwork, the kuksa has also been culturally appropriated by non-Saami artists who replicate the work as tourist souvenirs. At some point in this process the traditional Saami kuksa features – such as a rounded underside to the bowl and a small handle (Figure 5.3a) – have been transformed. It is more common today to see both hand crafted and machine made kuksa being produced with a flattened bottom and finger holes in the handle, features which most likely arrived much later to satisfy the needs of people who wished to have kuksa indoors on tables (Figure 5.3b). There are no early historical examples of kuksa with finger holes, a feature that is somewhat impractical in freezing outdoor wilderness conditions where a mitten is worn to keep hands warm and is only removed when absolutely necessary. In these conditions the traditional handle would be far more practical. In addition, the factory produced kuksa are manufactured with a cup part that is widest at the top. The reason for this is that the machine used to hollow the cups can do nothing else but cut a perfect half sphere.

The vast majority of historical, handmade kuksa had an inward lip at the top of the opening to keep liquid from spilling when placed on an uneven forest floor; the widest part of the cup cavity was about an inch below the rim (Figure 5.3a). You can accomplish such a feature with a crooked knife but not with a machine. Apart from the contemporary Saami *doudji* handcrafted kuksa (or Guksi) it is also far less likely that horn or antler will be inset into the handle, with the intricate designs of *kolrossing*, whether an item is machine- or hand-produced.

Such transformations in the style of the Saami drinking vessel, perhaps stimulated by the tourist market that developed in Finland in the early

a) b)

Figure 5.3: (a) Left: contemporary kuksa – hand carved with a 'tooled finish' by master craftsman Wille Sundqvist, Sweden, following traditional Saami design elements (Source: Sundqvist 2013) (b) Right: Modern kuksa, machine made and demonstrating modern features such as flat underside and handle with finger holes (Source: Sanford 2014).

1900s, have most likely developed for indoor use on tables, much like a modern cup.

5.3 Craftsmanship, green woodworking, and sloyd education

For the nomadic Saami the concepts of handicraft and art are intertwined. Everyday items have a practical function but, importantly, were/are also designed to be aesthetically pleasing and so the shape and appearance of everyday objects such as knives, ladles and bowls are as important as their functionality. Ideas of handicraft, art and functionality are also entwined in Scandinavian folk approaches to 'green woodworking', 'sloyd' and handcraft. The term 'green-woodworking' refers to techniques and tools for working living or green wood that still has its sap, as opposed to seasoned, dried, dead wood, where the moisture content of the wood is minimal. Green wood is harvested straight from the tree and used directly. This is because green wood is softer and easier to carve using simple hand tools such as a knife, saw and axe. In contrast, dry or seasoned wood becomes much tougher and, to shape wood in this hard state, power tools are preferred, leading to divergent traditions and techniques in woodworking. This

makes green woodworking a more portable approach. It allows for more complex crafting with relatively simple tools requiring only a small private workshop spaces and even in situ, in the forest, where the material has been harvested, as in often in the case with bushcraft practice and education. However, greenwood working requires a far greater knowledge and understanding of raw materials, and involves what David Pye (1968) refers to as a 'workmanship of risk' rather than the workmanship of certainty seen in machine-produced items. That is, grain must be understood as fully as possible since there is always risk in the idiosyncratic nature of wood grain will move, warp or crack as it dries. This parallels the quality of working with relationality and uncertainty, identified in the previous chapter as a feature of gnosis and phronesis.

This more organic approach to craft-making is sometimes evident in the Swedish educational concept of 'slöjd' (translated as 'sloyd' in older English texts). In explaining the meaning of the word, Jögge Sundqvist, a globally prominent and influential Swedish 'sloydartist', who has much inspired the contemporary greenwood carving aspects of bushcraft, as well as being a core inspiration within the green-woodworking scene more broadly, says that 'the word *slöjd* refers to '"know how to", "smart" or "do it yourself" and is still in our dialect. It is a Viking age word – it means "crafty"' (Sundqvist 2013). This meaning echoes that of the meaning of 'noos' or 'nous' in Ancient Greece, that is a mind that uses both intellect and intuitive understanding, epitomised by the craftiness and craft of Homer's Odysseus (OED Online 2015e). In colloquial British English, nous also denotes 'good sense'.

Hoffman (1892) emphasises the dexterity, versatility and artfulness of sloyd, focusing on a particular group of Swedish workers known as 'Sloyders':

> The word Sloyd (Swedish Slojd) is derived from Icelandic and means dexterity and skill… In old Sweden we find the word Slög meaning artistic or skillful… There is in Sweden a distinct class of workmen known as Sloyders, whom we would call "jack of all trades"…in English it is synonymous with manual training as distinct from technical and industrial training. (Hoffman 1892, p.19)

In the UK, although a 'jack of all trades' means, literally, someone who can turn their hand to any kind of work, it often has pejorative associations (OED Online 2015d). However, Stowe (2004) is clear that in Sweden, sloyd represents an educational means of developing physical, mental and personal qualities:

> While the term sloyd can literally mean any type of handcraft, 'woodworking sloyd' was seen as the form of craft most conducive to the desired mental, physical, and moral development in children. Thus, Educational Sloyd was much more than just the craft of working with wood. It was a well-designed system utilizing wood-working for specific educational purposes. The underlying idea was that the activities of the hands encouraged the development of the brain and led the child to the expression of higher values, greater confidence, self- esteem, and a general respect for all types of work, whether mental or physical. (Stowe 2004, pp.67–68)

While the term sloyd can mean any type of handcraft, 'woodworking sloyd' is the kind associated with educational development. Thus sloyd is likened to craftsmanship that uses dexterity, feel, intuition and embodied skill. Sloyd emphasised the intellectual and social development associated with the practical training of the hand and the eye and was influenced by and had influences upon the industrial arts and vocational education which grew out of this system. Sloyd is also a well-accepted educational context in Sweden, where 'Educational Sloyd' was imparted in schools principally for the means of developing character (Thorbjörnsson 2006, p.17; Stowe 2004, p.67). There are similarities here with the educational role of craftsmanship in some British youth movements.

The way principles of craftsmanship emphasise moral as well as muscular understanding has been highlighted in the literature on embodied knowledge. For example, Marchand (Marchand 2008, p. 267) suggests that:

> [f]ieldwork with craftspeople reinforces the idea that the body is a prime site for establishing an education for social citizenship. Like craft apprenticeship, all learning should be embedded in a framework that scaffolds a lifelong pursuit of physical, spiritual and intellectual development, making individuals into valued and responsible agents within their communities of practice.

In a talk given by Swedish sloydartist and greenwood master craftsman, Jögge Sundqvist, he comments: 'But' we never do say that we *are* crafty, practical – no we say "we are not *un*-practical", "we are not un-crafty" or in Swedish "Int' o'slög"' (Sundqvist 2013). This apparently self-effacing way of referring to oneself not as being 'crafty' but as being 'not un-crafty' is perhaps a reflection of the unassuming approach to both nature and craft that is an underlying notion in Scandinavian ideas of handicraft. In his book, *Sloyd Begins in the Woods*, Petersson (2011, pp.103–107) says:

> Sloyd is like other folkarts or culture which are based on local environments and culture…It´s all about how to shape things, a seeing and a power which is timeless and limitless... The man who is seeing and knowing has the ability to see the end result already in the woods. One thing that differentiated artists and craftsmen from the city to the village *sloydartist* was the attitude towards nature and the shapes that nature provided. The academics and their employers saw it as a duty to tame all wild things...while for the sloydartist never saw it that way...he had a more pragmatic approach...today we would call that a more humble way of seeing things...it was all about producing beautiful, long lasting and functional items from what nature provided. The sloyd artist lived in nature and with it. He was well aware of its rules and ready to submit to them and adapt to them...not to dictate the rules for nature. The view of the sloyd artist was, using a modern expression, holistic. It was geared to the whole and full picture of the process. It was built on a deep knowledge of the materials, an ability to find right things within the woods. A knowing and insight to see the process from the raw material to the end result for it to serve a purpose.

Petersson's concern here is with a symbiotic relationship between person and environment, in which the natural world is recognised as having agency – rules to which the artist must submit and adapt. This recognition leads to an interplay between artist and material requiring both a deep knowledge and a particular kind of insight which is typified here as holistic and which is, thus, identified as separate from 'the duty to tame all wild things' that typifies the vision and ideology of 'the academics and their employers'. Similarly, in a discussion of Inuit ivory carving, environmentalist and humanist, René Dubos relates the 'working with' discovery of internal characteristics of materials as opposed to the imposition of form upon the material, with wider philosophical concerns about human-nature relations:

> The respectful attitude of Eskimo carvers towards ivory symbolizes an ideal for modern man's relation to the external world. Instead of imposing our will on nature for the sake of exploitation, we should attempt to discover the qualities of each particular place so as to foster their development. Human life should grow, not quantitatively through the conquest of nature, but qualitatively in co-operation with nature. (Dubos 1973, cited in Morris 2012, p. 128–129)

Master craftsman Jögge Sundqvist also reflects this ideal of a dialogue with materials in his practice of greenwood craving and sloyd when he says:

> Form follows fibres – it's a search for individuals…When I walk into the woods I put on special glasses to see this kind of materials: I have lenses for straight grained wood and special lenses for bent curves, and it's a special communication

> between us…. And, back in the workshop we take a wrestling match, we go in a clinch….it's a process and a dialogue with the material. (Sundqvist 2013)

This idea of the craftsman in dialogue in the form of a wrestling match or a clinch with natural materials is echoed by the way sculptors describe their practice. For example, Henry Moore talks about 'direct carving' and 'truth to materials' (Moore and Wilkinson 2002, p.187). Moore's descriptions of the carving or sculpting process were sometimes in terms of entering a battle with his materials; he says 'unless you had some tussle, some collaboration and yet battle with your materials, you were being nobody' (Moore and Wilkinson 2002, p.201). Picking up on these notions of tussle, dialogue and participation with materials, Arnold Haskell, in an interview with Moore in 1932 (1932, pp.65–66), asks how far a carver is 'bound by his materials'. The carver, replies Moore, should not force his materials or 'weakness is the result.' He continues: 'At the completion of the work the material should retain its own inherent qualities' (Haskell 1932). Barbara Hepworth echoes the same ideas when she says that 'the material has vitality – it resists and makes demands' (cited in Witzling 1991, p.279).

These ideas about craft produced from nature in simple, direct ways, are important when identifying the underlying values of the contemporary production of the kuksa for bushcraft practitioners. Recent trends in green woodworking activities across the British Isles and North America increasingly reflect concepts inherent in sloyd. The influence of Swedish green woodworking techniques, designs and concepts entered British and American green woodworking traditions in the 1970s through the work and influence of Swedish master craftsman, Wille Sundqvist (the father of Jögge Sundqvist mentioned above). In turn, Sundqvist's ideas and pedagogy subsequently influenced bushcraft practices. In the early 1990s, when Wille Sundqvist's seminal text *Swedish Carving Techniques* was translated into English (Sundqvist 1990), a new generation of British and American green woodcarvers became inspired to approach nature in fresh ways. Ben Orford is a green woodworker and bushcraft knife and tool-maker, a former apprentice of notable British green woodworker Mike Abbott. He also attributes his skills to attending courses with sloydartist Wille Sundqvist. Orford explained, in an interview I conducted in June 2013, the difference between the British approach to green woodcarving and the Swedish approach, saying:

> Traditionally the English approach is to take the wood and then impose the form and design: to make the wood do what you want in order to get the spoon [for example] that you want. The Swedish approach is that you go into the woods and you learn to see your spoon, already there in the crook of a tree-branch. You cut that crook and then you begin to carve by following the grain, allowing the spoon to emerge. This gives the spoon strength as well as elegance, because you are not cutting across the fibers. You allow the wood to tell you what or how it wants to be. I think that's what everybody loves about the Swedish way.

Understanding the ways in which the kuksa may have passed into the bushcraft domain is important and, for that reason, I also interviewed Juha Rankinen in July 2012. Rankinen was my main research informant, host and translator for my fieldwork in Sweden. Rankinen currently lives and works in Sweden as the principal of the 'Vildmarks Gymnasiet' or Wilderness Academy. However, he was employed by Mears periodically between 1993 and 2007 and took a highly influential and leading role in the educational aspects of Mears' school of wilderness bushcraft 'Woodlore', becoming his lead instructor for much of that period. He said:

> When it comes to spoons and kuksas and the usage of knife, saw and axe and how to work green wood much comes from sloyd...and the big influence here has been Wille Sundqvist with his book which Ray [Mears] found in Lars Fälts library, but also eventually Mike Abbott brought, from courses with Willie [Sundqvist], skills to UK and used in his company of green woodworking. My own influence has been that I was taught green woodworking from several people doing sloyd here [in Sweden]...and of course that eventually got to be taught and used on bushcraft courses with Ray...like spoon making on Fundamentals [bushcraft course], kuksa on Campcraft courses and so on...and the way bushcraft use knives, saws and axes comes from sloyd quite a lot too, but not all.

Wille Sundqvist's book *Swedish Carving Techniques* also became the textbook for learning about safe and effective knife and axe practice, use and maintenance.

5.4 The bushcraft knife: a central symbol of bushcraft culture

Crafting from green wood, using the simple and universal 'all-purpose' woodsman's tools of a knife and an axe in order to produce simple functional items for backwoods life is immensely appealing to those involved with wilderness skills. The simplicity of the woodsman's tools in combination with the use of nature in a raw state to fashion simple, aesthetic and functional items

together created a logical application for greenwood skills and ideas in the practices of wilderness living. Indeed, the tool culture overlapped with that of the woodcraft tradition. The ideas espoused and enacted by sloyd craftsmen were also congruous with the deeper concepts underlying bushcraft which, in distinguishing itself from a 'survival at any cost' ethic of survivalism, identified with the ideals of finding a deeper personal understanding of the natural world. In this way Sundqvist's book was, and remains, a valuable guide for both learning and teaching the skill of using simple tools in nature, in combination with the principles of sloyd.

Early in *Swedish Carving Techniques* Wille Sundqvist (1990, p.3) writes about the Saami use of knives and suggests that he was influenced by their ways:

> Among the Lapps, the custom of bearing and using knives is an inherent part of their culture, probably more so than any other ethnic group. The Lapp and the knife are inseparable, at work as well as at play. Often two or three knives hang from their belts: the smaller knives for making repairs, skinning and eating and the larger used in place of a hatchet.

In bushcraft, the use of the knife is essential to all its practices, and so a particular culture has developed around the design, use and maintenance of the belt knife. However, instead of the use of a large blade and a small blade that hang from the belt, such as those of the Lapps, in bushcraft a medium sized belt knife is used in combination with an axe (hatchet) which is more reminiscent of American woodcraft. In Britain, the Ray Mears' 'Woodlore' sheath knife design (see Figure 5.4b) has become an almost universally accepted 'bushcraft style' knife – a ubiquitous standard design that is now recognised more generally (see, for example, a version made by master knife maker Ben Orford in Figure 5.4a). The bushcraft knife has a simple, fixed (not folding) leaf-shaped blade, a wooden or antler handle (not leather or paracord[24]), a thick blade with a full tang[25] and it is made from carbon steel[26] rather than stainless steel with a 'scandi' grind bevel, which means a flat grind single bevel that promotes ease of maintaining a sharp

[24] Leather, for example, soaks up blood from gutting animals and cannot be sanitised; materials that are abrasive, such as paracord, are avoided because they quickly cause chaffing and blistering on the hand.

[25] A 'full tang' means that the metal of the knife blade continues through the full length of the knife handle maintaining its width, not ending at or just inside the knife handle, thus no weakness exists at the join as there is no join.

[26] Carbon steel, while requiring more attention to prevent rust, can acquire a keener edge than stainless steel and can be more easily sharpened when becoming blunt than stainless steel.

edge (Mears 2002, p. 20). These features are distinct from what has developed out of the military style combat and survival knife to a more commoditised version simply thought of as a survival knife. Survival knives tend to be made from stainless steel (difficult to sharpen to a razor edge in the field), have a secondary bevel (difficult to sharpen in the field), to have many additional features such as 'saws' on blades, guards on the handle to protect the hand from slipping onto the blade in a stabbing action of a combat style knife (but interferes with many of the 'grips' required in crafting and carving), handles made from plastic or paracord and so on (see Figure 5.5) (eg Mears 2002, p. 20). In summary, they tend to be highly commercialised and multi-gadget orientated. The classic bushcraft knife design reflects stylistic influences from Scandinavian and Saami knife culture, particularly the smaller Finnish 'puukko' belt knife (see Figure 5.6) and/or the Saami 'Leuku' knife (big knife) (see Figure 5.7). However, it also contains influences from the American woodcraft sheath knife (such as the 'Kephart sheath knife' shown in Figure 5.8) and from British military style knives. Thus, the contemporary bushcraft knife is, in itself, a hybrid of influences containing indigenous, woodcraft and military features.

In the contemporary bushcraft scene, proficiency with a tool is considered axiomatic to practice, and one's competence and behaviour with tools can be a measure of one's acceptability in the community. It follows that what one then *makes* with a knife and/or axe, and the techniques they employ, becomes a visible demonstration or display of an individual's skill and knowledge. It is here that the kuksa also becomes particularly significant to bushcraft practice – as a symbol or statement of tool proficiency and knowledge of the natural material of living wood. Thus the knife, the axe and the forest become synonymous as symbols of the northern forest as a bushcraft mecca.

a) b)

Figure 5.4: (a) A popular contemporary bushcraft knife design showing a simple leaf shaped blade, with a Scandinavian grind (single bevel) for ease of field sharpening (Source: Ben & Lois Orford n.d.). (b) Mears popular bushcraft knife design brings together influences from woodcraft, Saami and military designs, and has become a ubiquitous type of knife used in bushcraft practice (Source: Woodlore Ltd 2016).

Figure 5.5: Bear Grylls popular survival knife showing more complex features such as a saw on the blade, and a 'secondary bevel', a guard on the handle and a more gadget orientation to the whole knife (Source: Bear Grylls Store, 2012).

Figure 5.6: Sámi puukko knife (Kils 2006; CC BY-SA 3.0).

Figure 5.7: Sámi style Leuku knife (Inkeroinen, 2016).

Figure 5.8: The Kephart woodcraft sheath knife (Hunter Library Special Collections 2005).

Furthermore, cutting tools also become another point of expression and distinction, highlighting once again the convergence and divergence of survivalism and bushcraft. Both use belt knives but they differ substantially in design and features. Survivalists tend to use wieldy machetes with fit-for-purpose gadgets (see Figure 5.5) as large cutting tools whereas, in bushcraft, as in woodcraft, the axe is used as the large cutting tool. In pop-survivalism the knife may be fetishised by understanding it as a 'weapon' to wield and defend against the feared and dangerous wildness, rather than the whittler's tool for the creation of living conditions in nature. These are important distinctions given the centrality of the knife to the material cultures of both bushcraft and survivalism: they reflect Pállson's skill/force distinction between reliance on gadgets and gear and utilisation of skill (Pálsson 1994, p.910). A different relationship with the natural world is engendered when the tool is a simple extension of the person's enskilled knowledge.[27]

In bushcraft then, the tool, the blade, the knife or axe becomes an extension of the hand, body and mind of the carver. As a demonstration of this, it has become fashionable, when carving items such as spoons, cups and bowls from wood, to achieve a 'tooled finish' (See Figure 5.3a). This 'knife-finish' rather than a sanded finish (Figure 5.3b) gives the item a raw/hewn feel and indicates the marks, style and effort in hand carving. It also demonstrates the skill and motion of the practitioner or craftsperson because every cut, slice and movement made by the craftsman is visible. Not only does one require the skill with a knife to 'tool finish' something well but the tooled finish also makes an item highly personal and idiosyncratic. A sharp, well-honed tool is also required, which additionally demonstrates the practitioner's skill and pride in tool maintenance and sharpening. In contrast, using sandpaper removes all of the marks made by the tool and the craftsman on the wood, leaving only the shape. Using sandpaper can sometimes be seen as hiding a lack of skill. The point was made by Jögge Sundqvist in the Tedx talk given by him in 2013:

[27] Clearly, the same is true of knives that are designed for military purposes, such as the Fairbairn-Sykes fighting knife. These are quite different from the more impractical, fantastical productions frequently associated with entertainment survivalism and thus highlight the distinction between military survival and entertainment survivalism.

> I just love the surface [of the hand-crafted wooden object] coming from the cutting tool, coming from generations – a technique refined from thousands of years of a kind of assembled aesthetic form, which is intimately associated with tools and technology. My production system is based on handcraft; it is an axe and a knife; a shave horse and a froe[28] and a club. (Sundqvist 2013)

Note also that, while the handmade, tooled finished kuksa in Figure 5.3 (a) requires no 'window-dressing' – its balance, line, shape and hand-finish speak instantly to the personal skill and knowledge required for its creation – the factory-produced item is surrounded by false authentication: the knife, snow and forest floor, none of which were part of its mechanised production. Thus, the 'tooled finish' shows the craftsmanship, aesthetic and dialogue of the maker with the material: the transfer of the action of the sculptor's body into the material.

5.5 Kuksa making in bushcraft practice

Returning to the making of the kuksa in bushcraft practice, professional green wood craftsman Jarrod M Stone Dahl, (pers. Comm. 2014) said:

> I think it's the fact that it's a wooden cup...regardless of the specifics to it's name or regional/cultural style in our modern world, whether it's Saami, or Finnish, Swedish, Ojibwe, Mohawk, etc.... It is a great symbol for the 'DIY project in the woods' concept; independent of a factory made object that permeates most modern camping/bushcraft gear. It's a handmade object or craft object born from a real need, this is why it is so popular. The object itself in my opinion is a symbol for these types of concepts and ideas. You can go into the woods and make what you need. As to the specific kuksa, the one with the finger holes is a relatively new design, replacing the dipper style cups of old. These new forms are mass-produced. I bought one when I was in Stockholm last year. I picked it out of a very large barrel filled with a 100 of them. In the Saami cups you still see the older style handle. This I learned when studying wooden cups, bowls, spoons, in Sweden last year.

Here Dahl positions the culture of kuksa carving in the UK as strongly symbolic of woodsmanship, which refuses the factory produced 'gear' of modern camping. Bushcraft, like camping in the past, has recently become increasingly commercialised, producing new items that are marketed to a broadly 'camping' consumer market, somewhat stimulated by entertainment survival television. For

[28] A froe is an L-shaped green woodworking tool specifically designed for cleaving wood along its grain. The froe is hammered into the end of the wood to be split and then twisted to cleave apart the wood fibres along the grain, and thus split the wood.

example, the wooden kuksa, transformed from hand-made to factory-produced for a tourist market, has become further transformed from a Scandinavian commercially produced item, to a handmade green woodworking item, to a factory produced or handmade bushcraft item.

Within this wider phenomenon, the kuksa has undergone another transformation, into a mass-produced plastic, or semi-plastic kuksa. For example, two Scandinavian outfitter companies, Kupilka and Fjallraven, have produced commercial kuksa-style products for the camping market (see Figure 5.9). Moreover, some sales outlets now simply refer to the plastic kuksa or 'guksi' generically as a 'camping cup' and thus remove the last vestiges of its Scandinavian and Saami heritage. This commercialisation is strongly antithetical to the core ideas and notions of the concept of bushcraft, namely those of craftsmanship, self-reliance and the ability to shape natural materials using simple, transportable hand tools, to provide a degree of comfort and facility in wilderness. In this way, the plastic kuksa or 'camping cup' does indeed share more with the ideals of a material and commercialised camping culture than with the core ideals of bushcraft as a skills-based practice.

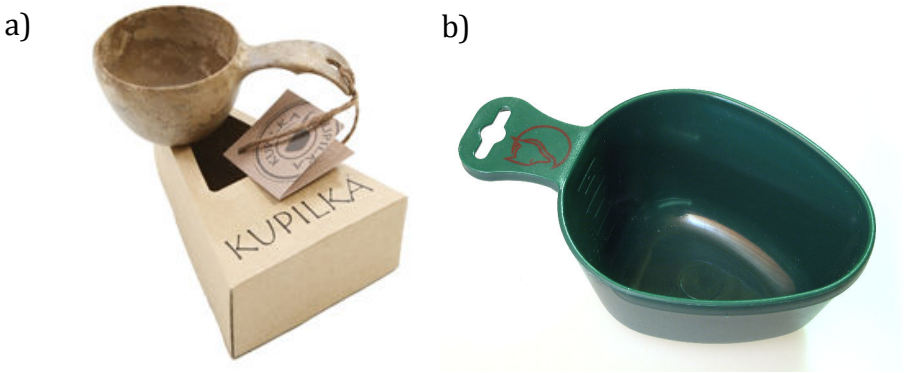

Figure 5.9: (a) the Kupilaka is made with 50% pine fibres and 50% plastic (Original Equipment Shop, 2011), while Figure 5.9(b) the Fjallraven Guksa is made entirely of plastic (Bergsten, 2005).

In contrast, I provide a description of making a kuksa according to bushcraft convention. In so doing, I draw upon my own experience, participant observation with master craftsmen and interviews. The description is based, in particular, on my involvement in a course run by the UK bushcraft school 'Wilderness Survival Skills', operated by Joe O'Leary. Joe kindly agreed that I

should attend the course as part of my field investigations in the UK: to conduct interviews and to be an observing participant. The course was based around crafting a kuksa using simple hand-tools and was located in a woodlands environment where the group also camped over several days. My field notes record that:

> I took up my axe again, and turned around the wood in my hands, trying to decide where to strike next. The woodland was clattering with the repetitive, rhythmic sounds of metal striking wood, of light chatter and birdsong. I easily engaged the group in conversation regarding the kuksa and its modern meaning for them. These were people who loved what they were doing and who wanted to talk about what it meant to them.
>
> 'So why a "kuksa?"' I asked simply. 'Why not stick to carving spoons?'

Spoon-carving has been a common practice in the bushcraft syllabus on almost every basic type of bushcraft course in the UK and is considered to be a fundamental aspect of bushcraft education and practice. Under the guidance and tuition of Joe O'Leary and his instructional team we had selected a tree for harvesting and were shown how perform a simple fell of a tree and section it. We were shown which part of our freshly sawn section of birch would form the kuksa. It was important to pay attention to grain. We split our rounds in two using our axes and then, continuing with the axe, hewed the still rounded outer side of the half round, flat. We then drew the outline of the top half of the kuksa into the other surface of the block. We were told how, as the green-wood dried, the inner part of the trunk would shrink and move more than the outer part, making it more liable to crack upon drying out. Consequently, it was best for the grain closest to the original centre of the trunk to become the bottommost part of the cup. We were not using burls, which are rare to find, and so problems such as cracking upon drying were more likely to occur. This use of ordinary sections of birch trunk or branches for kuksa carving appears to be common in bushcraft practice due to the rarity of burls available and so techniques have focused upon the use of the material which is more easily available – straight grained birch. However, it remains ultimately desirable to produce kuksa using curly birch for its strength, beauty, individual character and adherence to more traditional styles of kuksa.

When I queried the rationale for expending effort on producing a self-made kuksa, the group responded unequivocally that ‘A kuksa says outdoors’. One respondent stated:

> A kuksa reminds me of the outdoors. It is specifically an outdoor cup. I never use my kuksa indoors, whereas a spoon, a butter knife or a spatula I use indoors as well as outdoors – they all speak of the domestic, whereas a kuksa speaks of campfires, camping and wilderness.

Another respondent quickly agreed that ‘Yes, spoons you use daily in the house; the kuksa you don't – it is an outdoor cup’. Joe added, ‘If I am taking a stylised photograph to use for advertising my company, or to promote the appeal of bushcraft skills generally, I will include a kuksa hanging from a branch or off the back of a rucksack. It speaks of sitting around the campfire, of wilderness, but also the communal pot, sharing, community’. He continued: ‘It’s a reminder of where you have been - a place. It is something you have plucked from your environment and carried on your outdoor journeys – from campfire to campfire; it’s nostalgic; it’s about place’. Others agreed, that carving in this way tied them to the places in which they harvested and carved the wood, and also the places where they used the carved items – around fires, on journeys – outdoor places – the way in which the self became entwined with place through productive activity in and with the natural materials of particular places. This was invested with emotion – nostalgia, and something of that place remained, where your personality conjoined with the materials of a particular locality, the character of a particular piece of wood, with which a relationship was formed, and remembered.

Other respondents added: ‘It is nurturing, rounded; you hold it closely in your hands; it feels nurturing’ and ‘The kuksa has more style, design and inherent beauty than a spoon’. I pressed further… ‘But why make one yourself; why not buy one?’ and replies included: ‘You are not a kuksa owner until you have made one – it is a rite of passage’. ‘Buying it is soulless, whereas if you select a particular tree, select your wood from that tree and, with your own hands, turn it into something beautiful and functional, then you put your soul into it.’ ‘Yes, you put your soul into it, unlike something cut from a machine; it is a representation of your soul and character’.

My field notes record the strongly embodied and deeply felt relationship with which participants spoke of their creation of a kuksa: ‘So, it is like a wilderness souvenir, a reverie to nature in general and to a specific place and time and to yourself and your journey in skill and wilderness, both physically and emotionally. It ties you to the land.’

I noticed that participants spoke with a pride about the marks left, even though impermanent, upon their own bodies in the form of blisters and the eventual hardening of their skin. They spoke of how carving cups and spoons were also about gifts, and in giving such a gift, how they were giving of their very selves, gifting something that may contain the materials and skill journey demanded their very own blood, sweat and tears (or frustrations).

The emotional relationship was interpersonal as well as individual, so that one participant spoke of the tension between possession and gifting associated with it, saying: ‘It's a lovely thing to give someone a gift that you have put in so much care effort and attention – it’s actually a real tear to part with it’. Another participant’s narrative reflected a similarly strong emotional relationality held for him by a spoon that his partner had made when they began their ‘journey into bushcraft together’ many years previously. He said that, even though his partner didn't like this spoon, he hung it in their kitchen because it held meaning for him. During an intense argument, she snapped the spoon and threw it in the bin. ‘It was her spoon’ he continued ‘but it meant something to me and when she had gone I took it out the bin, glued it together and sanded it down and put it back…The spoon represented something about herself that she wasn’t happy with, but for me it represented something else – a reminder of a good period of our lives’. My field notes record that: ‘This story demonstrated the emotional content of this type of carving…the investment in, or even lack of, one’s very self’.

As we continued to carve and chop and our kuksa began to take shape, we continued, as a group, to consider what it was that drew individuals to make a kuksa and what it meant. I noticed how often the conversation turned to moral aspects of character building and of characteristics of good citizenship, sociability, community and moral values that clearly underlined the craft-making. Participants said things such as:

> A kuksa needs more effort, knowledge and commitment to make [than a spoon]. If I see someone with a shop-bought kuksa, I think – you haven't earned that! The self-made kuksa shows your character. That is your goal – to have the character to want one, to learn all that is needed to make one. If you make a rubbish kuksa, and you are prepared to display that then I think it also says something about your character. (Joe O'Leary, interview June 2013)

5.6 What the kuksa case-study tells us about bushcraft practice

Whilst the kuksa was originally a cultural product of the Saami people, it has become re-contextualised in the new circumstances of modern 'serious leisure'. The kuksa has been repurposed and developed a new identity with new meanings attached to it. It has undergone production and design transformations to reflect modern usage and limitations and it has come to represent new meanings within global 'bushcraft' practice. Popularised in Britain through media associations with television presenter Ray Mears, the kuksa has come to signify not only a useful or traditional wooden drinking vessel, it is also imbued with notions of status and authenticity within the group, owing to the workmanship required in order to make it. Figure 5.10 shows a stand erected by Joe O'Leary advertising his school at an annual UK 'Wilderness gathering'. Bushcraft here is characterised by the demonstration of craft skill and thus knowledge of nature's materials and the technical know-how to process them into useful wilderness living items such as fish traps. The number of kuksa and spoons displayed on the left hand side of the stand indicates how central such items are to bushcraft practice.

Figure 5.10: Wilderness Survival Skills stand at the Wilderness Gathering, Wiltshire, 2014. Photograph used with permission from Joe O'Leary (2014).

Since Mears influenced the adoption of the kuksa into the bushcraft community it has become part of the uniform of practitioners, displayed as an accessory on the belt where it hangs alongside other uniform and status appendages such as a knife, axe, saw, ditty bag and fire-steel; alternatively, it may hang from the back of a rucksack, alongside the woodsman's axe (see Figure 5.1). The self-made, handcrafted kuksa may be considered symbolic of a person's skill and dexterity with a knife and axe, the individual's knowledge and understanding of natural materials, and the connection they have attained between their own bodies, use of simple hand-tools and the natural world. It may also evoke an acknowledgement among fellow practitioners of a deepened level of involvement in the community. Ingold (2010a, p.1222) suggests that these qualities of craftsmanship extend to a deeper moral responsibility:

> Once, to have said something is "made by hand" would have been a statement of the obvious, but in today's world "handmade" is a mark of distinction. It connotes a kind of authenticity and devotion that people, increasingly cast as passive consumers rather than active citizens, feel is otherwise missing from their lives. With citizenship comes moral responsibility, yet how can we become responsible for a world that comes to us ready-made. At the very same moment when the world is at our fingertips, it also seems completely out of our hands.

In this formulation, the 'devotion' required as external praxis may be read as an expression of the 'moral responsibility' of internal praxis. 'Making', in the context of crafting a kuksa, encompasses a deeply embedded level of knowledge. This not only refers to natural material selection and preparation but also concerns levels of skill, craft and artistic self-expression as well as connection to oneself and nature. This is apparent, in both a domestic and an outdoor or 'wilderness' context; as an external display of validated competence in self-reliance and nature-skill; and as the understanding and mastery of a whole constellation of tool proficiencies such as the competent use and maintenance of a knife, axe and crooked knife. It denotes the deep connection between tools, person and environment; and the investment of emotion into nature and object through creative practice and the effort of labour. These practices and their contexts suggest an ecology of skill that develops through aesthetic and romantic appreciation, through tactile processes of shaping, collecting, processing and creating, and through tacit knowledge acquired through a pragmatic, sensuous, emotional relationship with nature; this participation with natural materials creates feelings of belonging and relatedness within the natural world.

While bushcraft practitioners are drawn to many aspects of Scandinavian folk craft, rural life-styles and associated images/representations of wilderness (such as forest log cabins, reindeer hide rugs, antler crafts, woodcrafts, Scandinavian outdoor clothing and tools), the Saami kuksa forms a significant part of that representation within bushcraft today. And yet, my research also showed a lack of knowledge or particular interest in the cultural relationship between the kuksa and the Saami culture – the meaningfulness of the kuksa for the Saami, both practically and cosmologically. It is for this reason that I suggest that bushcraft practitioners are not so much concerned with being 'like the Saami' in an 'Indianist' sense, or producing a kuksa 'like the Saami do', so much as acquiring a more abstract and internalised knowledge, something of 'Saami-ness' or indigenousness more broadly. I suggest that, unlike the related genre of 'Indianism', which seeks authenticity through close representation and re-enactment of the cultural practices and appearances of North American First Nations, bushcraft practitioners are reaching for a deeper authentic relatedness with the natural world itself. The example of kuksa carving shows us a type of authenticity that resides not just within traditional, indigenous or local cultural

practice, but within *skilled practice* with nature. If an individual carves a beautiful 'version' or expression of a 'traditional' Kuksa, whether or not they share genetic or cultural heritage with Saami, they are able to share an authenticity of broad-based individual skill and knowledge.

In this way, 'traditional' features of indigenous knowledge can perhaps be seen as providing a guiding symbol of such a relationship of belonging, inhabitation and participation in nature and place, in the individuals' own, personal context, both through knowing and through being – a conjunction of epistemology with ontology. Implicitly, they recognise comity with all other people who have sought to develop these forms of knowledge and skill in order to live in similar ways, in similar locations. In this way, on the surface, we can say that bushcraft has appropriated a traditional cultural artefact of the Saami for inclusion in its own re-invented traditions and, at the same time, transformed its production, design, materials and meanings. In so doing, bushcraft valorises indigenous knowledge as a symbol of a people who are considered still skilled enough to live in nature: a symbol that is felt at the core of bushcraft practitioners' imaginings and desires.

Chapter 6 : Creating Fire by Friction - The Bow-drill Method

6.1 Introduction to friction fire-lighting

My second case study examines the skilled practice of producing fire by friction. The two most common techniques that utilise friction by a rotary motion are those that are known within bushcraft practice as the 'bow-drill' and the 'hand-drill' methods. Together, these may be classified as 'fire drills' (Tylor 1865, p.237). Both techniques are so iconic in the contemporary practice of bushcraft that creating friction fire using a fire-drill technique has become virtually synonymous with the Western concept of bushcraft itself (see Appendix 1.2, Q16). Thus, it is this skill *par excellence* that appears to identify and symbolise bushcraft as distinct from all other Western outdoor recreational pursuits. Unlike a kuksa, fire is ephemeral, and personal skill is evidenced not by display of an artefact but by demonstration of a process. Furthermore, it is a high-stakes bushcraft activity in terms of preserving life and improving its quality. Mears reflects this when he says of fire-making:

> Fire is a fundamental human skill; I have seen other animals use fire, but I have never seen any other creature *create* it. It's what separates us from other animals; it's our special skill, and it's a vital skill in a remote place – it means protection from dangerous animals; it means warmth; it means safe food to eat. And it also means community and cheer…but there is a lot to know about fire; it is not as simple as a flame. (Iromoto 2015)

Practical insights into the ways in which fire has been produced in human history are recorded in the journals of early explorers, such as the accounts of James Cook during his voyages to Australia and Charles Darwin during his explorations (Tylor 1865, p.237). During the eighteenth century, the collection of artefacts for museums increased and so demonstrated a wide variety of the raw materials and fire-lighting methods used globally. However, ethnographic

descriptions of fire production methods among indigenous peoples do not begin to appear until the late 1880s; at this point they begin to appear more frequently until around 1940 (Hough 1928a; Hough 1926).[29]

Walter Hough (1859-1935), head curator of anthropology at the Smithsonian Institution, provides especially comprehensive accounts of global fire-making apparatus and techniques[30] and is credited with being the first 'modern up-to-date civilized white man…[to] make a fire with rubbing-sticks, as well as the primitive man' (Beard c.1920, p.5). Beard continues, 'it was an Englishman who popularized this method of making fire, introducing it among the Boy Scouts of England and America, and the sister organizations among the girls' (c.1920, p. 5) It is unclear, however, whether Seton or Baden-Powell is meant, although Seton is more directly associated with the bow-drill friction fire method (see for example, Figures 6.1 & 6.2).

6.2 The classification of 'primitive' fire-lighting

Friction fire-lighting methods can be classified into three broad categories: the first employs wood-on-wood friction; the second utilises stone-on-stone percussion; and a third, rarer type, uses air compression (such as in the fire-piston). Stone use generally refers to the combination of a 'strike-a-light' composed of flint (or another siliceous rock or mineral) and marcasite and/or pyrite. Both wood and stone methods have been used historically with various types of tinder that 'catch' a spark or ember and allow it to be more easily fanned to flame (Sorensen, Roebroeks and van Gijn 2014; Hough 1928a; Hough 1928b; Hough 1926). Building on Hough's (see Hough 1890, p.360) early classification, Watson (1939) categorises fire-lighting types as follows:

---

[29] Descriptions of 'fire-drills' are recorded by nineteenth and twentieth century explorers, ethnographers, museum curators and naturalists; see for example, Francis Galton *The Art of Travel* (1855, pp.171–188); Walter Kelly in *Curiosities of Indo-European Tradition and Folklore* (1863); Edward Tylor's *Researches into the Early History of Mankind and the Development of Civilization* (1870), Walter Hough, *The Methods of Fire-making* (1892) and *Aboriginal Fire-Making* (1890)*;* Balfour, *The Fire-piston* (1907) and then *Frictional Fire-Making with a Flexible Sawing-Thong* (1914); Warren Watson, *ed by Early Man* (1939); and Davidson. *Fire-Making in Australia* (1947).

[30] See *The Distribution of Man in Relation to the Invention of Fire-Making Methods*, by Walter Hough (1916).

Figure 6.1: Ernest Thompson Seton with Blackfoot Indians, starting a fire with bow and stick (Library of Congress c.1917).

1. Friction of wood (across the grain)
    I. Drilling – fire drill relating to (a) hand drill, 2 parts, (b) strap drill, 4 parts, (c) bow drill, 4 parts, (d) compound or pump drill
    II. Sawing – friction saw and fire thong
    III. Planing (with grain of wood) – fire plow
2. Percussion (strike-a-light)
    I. Pyrites and pyrites
    II. Pyrites and flint
    III. Steel and flint
    IV. Bamboo and pottery or flint
3. Physical
    I. Fire piston (compressed air)
    II. Lens and reflector
4. Chemical
    I. Match

Interestingly, this typology focuses upon the 'primitive' methods of other peoples to create a classification that underpins a putative evolutionary model from simple to complex. Ingold (2000, p. 289-290) challenges such evolutionary representations, however, suggesting that 'the transition, in the history of human technicity, from the hand-tool to the machine, is not from simple to complex, but is rather tantamount to the withdrawal of the producer, in person, from the centre to the periphery of the productive process', and so, 'It is a history… not of complexification but of externalization'.

6.3 Friction fire-lighting in practice

Because bushcraft uses the bow-drill more widely than the hand-drill, I take the bow-drill method of friction fire as the main focus of this case study. The bow-drill technique is considered by practitioners to be the easier of the two techniques to teach, yet it is more complex than the hand drill in its technology, requiring four parts to be found, made and worked together (Figures 6.1 & 6.2), rather than the two parts of the hand-drill (Figure 6.3). Furthermore, suitable materials for the bow-drill are more readily available across a far wider range of environments. Finally, because of its mechanical advantage the bow-drill can be employed more reliably using inferior materials and in more challenging conditions than can the more nuanced techniques of the hand-drill.

The difficulty or ease with which an individual can learn the technique for producing fire using friction methods is a long-standing point of discussion. Arriving in Tahiti in 1769, Cook recorded the procedural aspects of friction fire-lighting, observing of the indigenous peoples of Australia: 'by this [two stick] method they get fire in less than two minutes' (Tylor 1865, p.236). Similarly, in 1839, Charles Darwin recorded his own experience in acquiring the skill of friction fire in Tahiti:

> They then proceeded to make a fire, and cook our evening meal. A light was procured by rubbing a blunt-pointed stick in a groove made in another (as if

Figure 6.2: Ernest Thompson Seton demonstrating the four-part bow-drill technique in 'How to make fire by rubbing sticks', Country Life in America (Seton 1904).

Figure 6.3: The author practicing the two-part hand-drill technique in Namibia, reproduced with permission of Ben McNutt (2008).

> with the intention of deepening it), until by friction the dust became ignited. A peculiarly white and very light wood (the *Hibiscus tiliaceus*) is alone used for this purpose... The fire was produced in a few seconds: but, to a person who does not understand the art, it requires the greatest exertion; as I found, before at last, to my great pride, I succeeded in igniting the dust. (Darwin 1839, p.488)

Hough provided photographic images of the various body positions required in the activity of fire production across all the friction methods he used, claiming

‘the author can make fire in 10-seconds with the twirling sticks [hand-drill] and in five second with the bow-drill’ (Hough 1890, p.360). Hough reports that the ‘Apache can make fire this way in eight seconds and if a tribe cannot produce fire by friction in under two minutes then it is likely that they are either not well prepared or practicing a waning art’ (Hough 1890, p.361). His focus is on practice, commenting that: ‘Generalisations with respect to fire-making have been made from theoretical difficulties presented without recourse to a practical test’ (Hough 1890, p.361). Hough points to the limitations of textual descriptions in relaying the necessary nuances of skill, since ‘there are other minor steps in the process which are seemingly inconsequential yet are vital to efficiency’ (Hough 1928a, p.4). This helpfully draws our attention to the difficulty in providing adequate text-based descriptions for the more tacitly held aspects of the skill, as well as the challenge of explaining the infinite complex of variables of circumstance and materials, the understanding of which are critical to the successful operation of the apparatus. Hough comments: ‘Even the best descriptions … omit details essential to the success of the process. Few note, for instance, the great *knack* in twirling the stick’ (Hough 1890, pp.362-363, emphasis added).

Typical of the early literature on the production of fire by friction, then, is an account of its ease and ‘simplicity’ of production on the one hand and yet descriptions of it as ‘almost impossible’ in its difficulty on the other. However, there is general agreement in the literature that once a person has acquired the skill, it can be relatively easy to apply it consistently, especially in relatively dry and stable climates. As Wescott (1999, p. 41), explains ‘With bow drill, the parts are complicated and precise, the body position and control is difficult, and these problems are compounded when the two are put together with a lack of understanding on what makes friction fire work in the first place’. Yet, Wescott continues, ‘making fire by friction is a deceptively easy process once the principles are understood and the technology well practiced’ (Wescott 1999, p. 41). This is easily clarified by saying that friction fire requires simple technology but sophisticated knowledge, wisdom and technique which can be difficult to acquire without expert instruction.

6.4 The operation of the bow-drill method

All fire-drills use wood on wood friction. The drilling action involves the rapid spinning of a drill or spindle back and forth, whilst simultaneously exerting a downward pressure on it against the grain of a wood hearth or block, causing friction at the point at which the spindle meets the hearth. With the right speed and pressure, a sufficiently hot fine dust is created which combusts and forms a small glowing ember. This essential action is found in bow-drills, hand drills, pump (or compound) drills and strap (or cord) drills. The following is a brief description of the bow-drill method.

A rigid, straight or slightly curved stick (or bow), from 10 to 20 inches long, is selected and a cord is tightly fastened to one end which can be adjusted at the other to take up slack, since the cord must be tight enough that the drill cannot easily be moved along it once it is wound in. The drill is tapered like a pencil at the top end (where friction needs to be minimised) and rounded to a dull curve at the bottom end (where friction is maximised). The bearing block, which Hough refers to as the 'nut', is a block of dense grained or green wood (to reduce friction at the top) of convenient size for holding in the hand. The bearing block is made from materials that will reduce friction at the top (where the bearing block is pushed onto the pencil end of the drill); it can also be made from materials such as a smooth stone or bone. The hearth board is a piece of straight-grained wood that has been flattened to a board-like appearance into which the dull end of the spindle or drill is placed and rotated. The driller must make one turn of the cord around the drill, leaving the drill piece on the outside of the bow string, and then set the drill in the socket of the hearth and place the hand piece on top of the pointed spindle end (see figure 6.1). A few sawing motions with the bow are made to check the equipment, especially to make sure that the cord grips the drill sufficiently to ensure that it does not slip when downward pressure is applied on the bearing block. The driller takes up a position over the drill (figure 6.1). If the driller is right-handed, the left hand holds the bearing block with the left arm wrapped around the outside of the left flexed knee and braced against the shin, which aids pressure on the drill. The left foot is placed on top of the hearth and positioned next to the spindle while the right knee is on the ground kneeling behind. The right arm makes the sawing action. Hough (1890, p.6) instructs his reader to:

> Begin slowly and increase the pressure, nicely balancing the pressure with the grip of the cord. In the concluding rapid work the cord may be tightened by pinching it up between the thumb and first finger of the right hand. When the drill is felt to bite strongly into the wood and throws up a little smoke increase the pressure and rotation until the fire coal is thought to have appeared. Hold the drill in place till this fact is known, as it is much better to continue with a hot drill than a cold one.

As Hough notes, the skill of friction fire is not yet over since, 'to get a blaze from this fragile coal is like Langley's problem in launching the first airplane; the difficult problem which was hardly envisioned in the more important effort' (Hough 1928a, p.6). Thus, once an ember is produced students must then learn how to perform the delicate and vital task of transferring an ember to tinder and gently blowing it to flame. Hough provides the following description while noting, of course, that there are a number of variations to the procedure:

> The coal may be very gently fanned where it lies and finely divided material added in the right amount. Generally, softened inner bark strips are previously placed under the hearth and shredded grass or bark with perhaps a bit of tinder placed near the slot. The coal emerges in this material, which is taken up on the strips of bark and gently waved in the air. In a little while a flame bursts forth. (Hough 1928a, p.6)

The way that the body is positioned in relation to the bow-drill set is a critical aspect of fire production and it is quite specific in bow-drill technique (Figure 6.1). However, a visual image cannot express how it feels, sensorially or emotionally. Learners must, therefore, acquire, through instruction and sensation, a feel for how the body must be positioned for operation of the drill throughout the process, to keep it from flipping out of the stringed bow and for maximum efficiency. For example, practitioners must learn to exert enough, but not too much, downward pressure through the bearing block and onto the spindle which pushes into the hearth where the friction is required. Downward pressure on the drill can be assisted by positioning the body to use weight rather than strength, thus relieving pressure on tired muscles.

Aspects such as this (and there are many more similar ones involved) must be learned by feel in relation to results – that is, by trial and error. The teacher can help this process by, for example, mirroring the learner while laying their

hands on top of the student's hands and applying the right amount of bowing speed in combination with the right amount of downward pressure. In this way, the student literally *feels* through the instructors' body the right combination of pressure and speed, which they then try to replicate. Thus, as Ingold (2000, p.356) puts it, 'it is not enough for the novice to know how their constituent movements look "from the outside"; she has to know how they feel "from the inside"'. Professional bushcraft educator, John Rhyder, echoes this when he says of the bow-drill technique:

> Body position is very critical to success, particularly with the bow drill technique, and I would say this is the area of learning that is most useful to have another person guiding you because you can't see yourself; you can't see if your spindle is wonky or if your body position is subtly wrong, and this body position really can be the difference between success or repeated failure. The bow drill can sometimes be harder to learn than hand drill precisely because the body position for the bow drill is pretty fixed – well it has a narrow margin of variation anyway – I mean, there is only one basic position and then subtle, but critical, personal variations to achieve that specific position. In the hand drill there are a range of positions that can be adopted and its more down to finding out which one is most suitable for the individual, which is often initially best dictated by their weight, size and upper body strength, before they can refine their technique and explore other positions. This is where being taught in person can be so productive because an experienced instructor can firstly make an assessment of an individual's physiology and show them how to adjust subtly to optimise their chances, and even select wood species that might suit their physiology best, and then can see problems in technique and correct them immediately. (John Rhyder, interview, 3rd Oct 2014)

Understanding the way in which the proportions of the fire drill 'set' relate to the specific proportions of the body that wields them was also significant in responses I obtained from students concerning the acquisition of friction fire skill. In bow-drill, the correct positioning of the body was considered a vital aspect of successful operation and the construction and scale of the equipment made can invite the body to take up the right or wrong position. Dimensions of materials are also variable depending on the wood species used; for example, if using ivy (*Hedera helix*) (which is considered a 'novice' wood as it is comparatively easy to achieve a fire with) the spindle, it is advised, must be carved thinner than, for example, that of sycamore (*Acer pseudoplatanus*) – a denser grained, more challenging, wood type. Not only is the correct construction of the fire-making apparatus critical to producing a coal, but the body positioning and biomechanical aspect of the operator is also a highly significant feature of successfully operating

the technology. A student of friction fire further corroborates this in another response:

> For me the crucial part was learning how to make a bow drill kit to fit me. Previous attempts had always been done with other people's sets, all of who were 6ft+, whereas at 5ft it became apparent that I would need some adjustments. Once my leg height had been taken into account and the length of the drill piece adjusted according to the length of my shin bone, I was able to apply downward pressure more easily. Also using softer woods, as pressure is something I struggled with. With these adjustments, I found that it was possible for me to maintain the pressure and friction for long enough to obtain an ember. (FFS, Q6, respondent F#9, 18th Sept 2014)

Thus the production of bow-drill fire necessitated that an individual must do quite precise things with their own bodies in order to correctly operate components that are precisely shaped and proportioned in relation to their personal physiology. Furthermore, they must demonstrate a high degree of skilled knowledge and practice in terms of the selection of materials, demanding a necessary 'drawing in' (Ingold 2000, p.314) of nature. Such self-reliance in nature is greatly admired in bushcraft practice as ultimately leading to the experience of feeling more deeply connected to nature – being a part of it. What is more, fire by friction's reliance upon technique, as opposed to technology, suggests a *minimal* distance between the operator of the technology and the nature world. In a similar way, Ingold proposes that for hunter-gatherers, 'nature is personal and drawn into a nexus of social relations', thus 'humanising' it (Ingold 2000, p.314). This establishes conditions of 'mutualism' with nature, rather than control exerted over an objectified nature. As such, the development of substantial personal skill in operating simple technology contains a personal rather than mechanical potency. Accordingly, whereas technology 'affirms the independence of production from human subjectivity' (Ingold 2000, p.315), the development of technique or skill places the subject at the centre of activity.

6.4 Learning to see *into* landscape: an education of attention

Being 'drawn in' to the natural world is especially apparent in selecting materials and producing apparatus. There are subtleties at every stage of this complex and vital process that will either promote or hinder the successful production of fire. In

the early ethnographic study of fire-making the equipment or 'fire set' was received by the ethnographer or museum curator in a ready-

made state. It might, therefore, be supposed that ethnographers like Hough learned first how to operate the technology, rather than how to produce the apparatus, but both are equally challenging, requiring subtle knowledge about the material affordances and landscape. As Hough puts it:

> In considering the difficulties which confronted the inventor of the wood-friction fire-making apparatus it is pointed out that the proper wood in proper condition must be found. All advanced Boy Scouts will subscribe to this.
> Evidently the wood was not selected by the early experimenters before they knew what was to be done with it….Tinder of a suitable kind in which the spark may be nourished must be found, and this is no small task. Finally the little coal of fire can be brought to a blaze only with great skill and a knowledge of a number of things. (Hough 1928a, p.4)

Access to information concerning the process of friction fire is now vastly more wide-ranging and globally available to bushcraft practitioners, via the internet, than it was even twenty years ago. Despite this corpus of readily available online information, my research revealed that personal tuition and apprentice-style learning remained the most valued pathway for the actual attainment of skill (See Appendix 1 .2, Q29, Q31). An experienced practitioner can show the student a range of materials required for friction fire-lighting in a range of conditions and under an array of circumstances. Learning to locate and identify appropriate materials in the landscape that contain the required properties involves a sensuous and tacit type of knowledge. Through observation, personal instruction, feeling, sensing, following, imitating and replicating, practitioners learn how to see into materials for their possibilities and to *feel* for the right conditions. They must learn where in the landscape to locate plant and tree species and where in the landscape those species might provide materials in the best available condition; 'they are taught how to *see into* the forest, and learning to *see* in this way is fundamental to all bushcraft practices' (Ben McNutt, interview 9th July 2013). This 'seeing into' and 'learning to see' might also be described by what James Gibson referred to as an 'education of attention' (1979, p. 254).

My field notes record the 'education of attention' required in the selection of materials for fire production using the bow-drill method. This account is

quoted at length to demonstrate the complex decisions required at each stage of selection. Key words and phrases referring to sensory relationships are underlined to highlight the sensuous knowledge required to select correctly, as well as the process of being 'drawn in' to the natural world:

> Selecting materials for bow-drill fire
> The instructor, Ben, holds the dead branch to his lips. He is using his lips because, he tells us, our lips are the most sensitive part of the body for detecting moisture in wood. This action is to determine not only if fire is possible from this wood, but just *how* possible it might be. He tells us that he weighs this information (how damp the wood is) against his own bodily state, capability and skill, which might be different for everyone and can also differ according to circumstances. He tells the group that this principle of economy is central in bushcraft practice – the experienced woodsman is distinguishable by the elegant efficiency of his actions. Next Ben pushes his thumbnail into the wood to conduct what he calls the 'thumbnail test', that is, to feel for the state of rot. He wants the wood to be soft enough that he is able to leave a minor indentation, or a trace, of his thumbnail in the wood, but not so much as to be able to gouge any wood out – that would be too soft. This is critical information but difficult to relate. It is, however, far more relatable in the form of demonstration and context than by the sterile words of an instructional manual. 'It is ridiculously difficult' Ben says 'to learn to make friction fire by reading instructions from a manual. I have met very few who have achieved friction fire this way. Although it is much more realistic to self-teach these days with the aid of YouTube videos…this seems to work better if combined with learning from an experienced person who can help you avoid the main pitfalls'. He warns the group that, while one *can* make friction fire with very hard dense-grained wood or very soft wood (which crumbles with pressure), one needs to have in-depth knowledge and experience; thus for beginners, it is best to start with a wood density/hardness that is somewhere in the middle of the extremes before learning additional techniques to cope with material at the extreme range of the technique. In this way, success or failure can certainly depend upon the wood you select in the first instant. This also highlighted the importance of being able to identify various tree species, even in a dead, dry state. Each species has its own character in the way it tends to behave for friction fire, with some species such as rowan (*Sorbus aucuparia*) being almost impossible; thus Ben tells the group that only personal experience teaches you the subtleties of what species work best, in what kind of condition, and under what circumstances. On top of this, one can experiment with different combinations – an alder hearth with a willow spindle, for example. Some combinations work better than others.
>
> Next Ben breaks the dead sycamore (*Acer pseudoplatanus*) branch he has selected – listen, he tells his students, for that dry 'crack' when a branch is snapped. Often I pull dead braches down from the tree, and I can tell if it is 'good wood' or not by the sound of the snap as it hits the ground. Here I have selected a sycamore; squirrels like the sweet sugary sap of this maple, and as they gnaw the

bark to access the sap they ring-bark the upper branches in the spring. This kills the branches, but leaves them dead and 'standing', still attached to the tree, and thus elevated from the damp forest floor where dead wood will soak up moisture. This will give you dead wood in best condition since the rain runs down the outside of the upright branch and off it evenly rather than soaking into it, all of which makes for superior bow-drill wood.

Having collected the sycamore branch from which the drill and heart components will be produced, we next look for tinder in the forest. 'Your tinder is vital', Ben says. 'If you select bad tinder you will do all the work of making your bow drill kit, and producing an ember with it, only for it to die in your tinder bundle'. Your tinder needs to be dry, with fine fibres, of which there are many types: inner tree barks such as those of lime (*Tilia* sp.) or willow (Salix *sp*.). Inner barks such as these need stripping from a live tree, the outer bark is scraped off using the back of a knife and the fibres allowed to dry before being rubbed vigorously between the hands to 'buff' into fine fibres. Outer barks such as clematis (*Clematis vitalba*), honeysuckle (*Lonicera hildebrandiana*) and juniper (*Junipus communis*), all of which have sort of dead fibrous outer barks that are simply stripped off and 'buffed up'; plant fibres such as nettle (*Urtica dioica*) require some processing techniques to extract and dry the inner fibres of the nettle stalk; seed heads such as cattail seeds (*Typha latifolia)*, clematis, thistle (*Sirsium sp*.) seed 'down', bog cotton (*Eriophorum angustifolium*) seed 'fluff'; grasses and foliage such as purple moor grass (*Molina caerulea*) and dead bracken (*Petridiam aquilinum*) even types of fungi can be helpful such as the true tinder fungus (*Fomes igniarius*) cramp balls (*Daldinia concentrica*). However, all these materials, we were told, are used and prepared differently from each other – all requiring slightly different knowledge and skills in preparation and also application. Tinder must be selected for dryness, and so weather conditions are also an important factor. For example, we were, at this time, based in the Lake District National Park and it being a typical damp, wet day, we were forced to immediately exclude possible tinders such as purple moor grass, which tends to grow in exposed boggy areas and thus becomes soaking wet; therefore, we look clematis (*Clematis vitalba*) bark and dry bracken that has been sheltered from the worst of the weather, collecting dead bracken fronds from under dense bracken patches in sheltered areas. We are then told to place out tinder in pockets close to our bodies allowing our body heat to remove more damp as we walk about. The final component we look for is the bowing-stick or blade, to which a piece of natural made string (such as nettle or lime cordage) or man-make cord (such as paracord) will be attached, pulled tight and the spindle part inserted so that it can be bowed back and forth. However, even in this component, not any stick of the right length will do. What is required, then, is something that is preferably light, thin and yet strong, with a slight curve or bow to it, but not too much. Something which is not flexible since flexibility will prevent a tight grip of the string onto the spindle and thus interfere with the efficiency of the bowing in precisely the same way that a gear mechanism might slip.

Lastly the hand-piece or bearing-block can be made from several materials such as a smooth rounded stone such as soap-stone (also known as steatite), a piece of bone (such as the knee join of a deer seems common), or, most commonly, of dense-grained or green sap-filled wood. However, once again, not

> just any wood is advised, although could be made to work. What is most sought is something that is 'harder' than the spindle, so that when pressure is applied to the spindle, the hand piece firstly does not wear through, and secondly does not produce friction, and therefore resistant at the top, as well as where it is desired – at the bottom (where spindle meets heart-board). Again, this maximises efficiency of energy of the individual. Thus the hand piece is usually a dense-grained piece of cleft wood such as oak (*Quercus* sp.) or blackthorn (*Prunus spinosa*) (being rounded on the outside for the hand to fit on comfortably, while flat on the bottom to minimise any wobble), or a green, sappy piece of wood.

In this narrative concerning finding materials for a bow-drill in the local landscape, no precise measurements or specifications are provided but precision is a key requirement. Such precision depends on comparative judgments, made by the practitioner on the basis of their past experience and their sensory perceptions of the present. Those data are then subject to further modification, depending on the immediate embodied state of the practitioner – their bodily state, capability and skill and their location in landscape modified by external events – according to circumstances. It is, therefore, a highly phenomenological approach to a fundamentally mechanistic activity, bringing together both perceptions of the self and the environment with the physics of pressure, leverage and friction. Taken together, these qualities comprise 'an education of attention', leading eventually to the phronesis that typifies mastery of the skill.

6.5 Early educational instruction in frictional fire-making

In an interview with a notable practitioner of primitive survival skills, woodcraft and classic camping, David Wescott, I asked why he thought that the bow-drill technique had been emphasised over the hand drill technique or, indeed, any of the other fire-making types. He responded:

> The short answer (in my humble opinion) is Ernst Thompson Seton. Seton was the ultimate bow-drill man. His early experience with southern Canadian tribes and his affinity for tribes like the Ojibway exposed him to the material cultures of those people. I believe that was the place where the bow-drill was regularly used – damp country with marginal wood where a mechanical advantage is critical. Having learned the method, Seton used it as an almost magical event to punctuate his talks as he traveled the world. It was also the method of choice that he and others later focused on in texts of the day. It has remained standard fare because of his including it in Boy Scout manuals. For boys of the 30s, 40s and 50s, the bow-drill fire was one of the last vestiges of traditional woodcraft that survived the purge of the modern environmental ethic. It is still the craft that dazzles just about anyone you show it to. Larry [Dean Olsen] was one of those boys; I and many others were

> Larry's students. It was a sure-fire demonstration piece, was easy to teach students with predictable outcomes, made up for bad form and materials and so I think it persisted in the field for those reasons. (Interview, 4th Aug 2011)

Seton was perhaps the first to write extensively and informally on the subject of bow-drill technique for the explicit purpose of inspiring, instructing and educating others in its use, rather than simply recording an ethnographic technique (e.g Seton 1912a, pp.192–194). Seton, then, through his *Woodcraft Indians* and associated manuals for boys, is probably most responsible for transporting the art of friction fire, the bow-drill technique in particular, out of ethnographies and museum collections and firmly placing it in the wider popular public domain (e.g. Figure 6.4). This occurred through the inclusion of the bow-drill in the earliest Boy Scouting Manuals at the turn of the twentieth Century (e.g Seton 1910, p.84). Despite Seton's early acquaintance with southern Canadian tribes, in studying the art of friction fire it appears that it was textual accounts from which he himself first attempted to learn the skill. However, as he notes below, he struggled to acquire friction fire-lighting skills through close examination of text-based records:

> My early efforts [of bow-drill] were inspired by book accounts of Indian methods, but, unfortunately, I have never yet seen a book account that was accurate enough to guide any one successfully in the art of fire making. All omit one or other of absolute essentials, or dwell on some triviality.' (Seton 1904, p.145)

Seton attributes his eventual success in acquiring the skills for the bow-drill technique, neither to knowledge of 'Indians', nor to book-knowledge, but to personal instruction through museum curator Walter Hough: 'When I first learned from Mr. Walter Hough, who learned from the Indians, it took me five to ten minutes to get a blazing fire, not half an hour, as some books will have it. But later I got it down to a minute, then to 31 seconds…' (Seton 1904, p.145).

The *speed* at which a person can produce fire by friction is perceived as a direct measure and display of skill and mastery. Ernest Thompson Seton (1904) emphasised the prominence of fire-making among his Woodcraft Indians as an important 'feat' or 'exploit' of woodcraft that apportions status to those 'warriors' who can make a friction fire, by bestowing them with 'honors'. Such 'honors' are

ranked from low to high, based upon the *speed* at which fire, made in this way, is accomplished. And thus, the member who proves himself most expert, due to the speed at which he can attain fire by friction, achieves the highest status of all – 'Chief of the Council Fire' (Seton 1904, p.204).

Seton's Woodcraft Indians experienced the production of friction fire as a status symbol, and achieving it was a *rite de passage*. However, the usefulness of such skills in wilderness emergencies have been, and remain, questionable, which further supports its location as a *rite de passage* and a demonstration of mastery, as opposed to a practical survival skill. This is a point that Horace Kephart (1921, pp.33–34), author of *The Book of Camping and Woodcraft*, notes:

Figure 6.4: Ernest Thompson Seton demonstrating the fire-drill method to young students of Woodcraft, Unsourced.

> As for the fire drill, so dramatically exploited by popular lecturers, who make fire with sticks in less than a minute, it is all right if you have the right material… In most situations it would be accidental if a lost man should find such wood. As a matter of fact, savages carry their fire-sticks with them, as we do matches.

In *The Book of Camp-Lore and Woodcraft*, Daniel Beard echoes this view of the practical application of friction fire techniques in the wilderness:

> The 'rubbing-stick' is a picturesque, sensational and interesting method of building a fire, but to-day it is of little practical use outside of the fact that it teaches one to overcome obstacles, to do things with the tools at hand, to think and act with the vigor, precision and self-confidence of a primitive man. (c.1920, pp. 6-7)

Beard's writing thus locates the importance of friction fire, not primarily as an emergency wilderness technique, but more as a pedagogical tool to develop the inner qualities required 'to overcome obstacles' and the external mastery required to 'do things with the tools at hand'. Educationally, then, learning friction fire production teaches and develops, in the woodcraft or bushcraft practitioner, qualities of improvisation, adaption, thought, vigour and precision, whilst instilling the 'self-confidence of a primitive man'. This strongly positions the skill of friction fire-lighting, not primarily as a survival technique for remote emergency, but rather as a pedagogy for developing the 'ontological vocation to be more fully human' (Freire 1970, p.74), enabling the learner to be a re-creator rather than a spectator, not merely *in* the world but *with* the world. This process of 'reflection and action upon the world in order to transform it' provides the praxis that Freire calls 'conscientization' (1970, p. 33, 85).

6.6 Personal qualities in learning friction fire

In describing their experiences of the *process* of learning friction fire techniques, respondents frequently revealed the necessity of developing not only physical understanding but also personal qualities. 'Tenacity', 'patience', 'persistence' and the ability to 'endure' were frequently cited as qualities that were considered particularly important. At the same time, the most common emotional responses to the process of learning friction fire were reported as being 'frustration' (even anger) and 'relief', which was commonly linked to the physical experience of pain and exertion coupled with the psychological experience of failure. As one respondent explained: 'I have read and watched many different methods [of friction fire-lighting] and for what it is worth it appears as with many other fire-lighting techniques it is patience, practice and tenacity that are really the keys to success.' (FFS respondent F#61, Sept 2014). In this way, friction fire skills become a symbol of desirable personal qualities, sufficiently developed for the rugged encounters of wilderness life. Professional practitioner and UK friction fire expert, Dave Watson, further explained:

> I think the stepping-stone is that most people's methods that they use [for fire-lighting] are dependent on need for commercially produced 'kit' to make fire. I think the transition is when you start looking at the idea – 'could I find what I need out there?' Now the idea is 'oooh yeah, that would be great, and it is what lots of people here at The Bushcraft Show are excited by, because they probably theoretically have the knowledge, but doing it for real is probably still way beyond. That's fine; it's a journey. The more you go into the skill, the deeper you go into yourself, but also you really grasp how to interpret your landscape. It's also about confidence – I think confidence is key and it's a universal – if you actually genuinely read the landscape well, you are going to be calm, thoughtful and mindful in almost any situation and what to one person is a desperate survival situation, to another is a problem that can probably be solved, and you have that understanding, on a deeper level, you can see it in people. When I challenge people with their fire skills, I take them into a woodland area they haven't been before and I say to them 'go make a fire'. I then tell them that I will probably know whether they will succeed or not in the first 30 minutes. Those that will succeed with go into the woodland and they will sit still; they will read the landscape, the weather, what the weather has been like, what it's doing now – is it going to be a nice day today?…They will think, 'hmmmm I can wait before I collect my tinder bundle as the day is getting warmer and the warm air will dry stuff I can collect later', OR...'hmmmm, its getting damp; I better get that tinder first and start drying it out in my clothes with body heat'. Then they will think 'Ok, I am going to need to find some dry dead wood for my bow drill components…hmmmm, ok, I kinda sense there will be some dry dead trees down that end of the wood…I am going to find it there'. You can do a lot of this standing still. What is also important is being real and honest, and ask yourself, 'can I do this today' and if the answer is an honest 'yes' then you will succeed and you won't hurry because you don't need to; you will be calm. Any deviation can lead to frustration and, if you let frustration dominate, soon you will be falling apart at the seams and it isn't going to happen. In society we like to have competition or, in some education practices, we avoid competition but in the woods the competition is with yourself – Can you get that fire lit? And that sort of competition is of real educational value – Can you do the job that you need to do, regardless of whether others are better or worse than you; can you do it? – That's what matters in the woods. The bushcraft skills expose the truth and also potentially expose the lies in our society. In bushcraft you have an instant sense of your own value – you know if you don't get a fire going for yourself or as a group, you are going to be cold. These skills can draw out the real person. If I was to sum myself up, I would consider myself a mentor who uses these skills to reach people and these bushcraft skills have a beautiful way of reaching through the false façade of society and what society leads people to think of themselves – the skills expose the truth – reality. There is magic there; there are those elements that bring the fullness of life; there is awe. (Dave Watson, 2013)

Watson's comments reflect common themes of community, individual challenge, emotional stability, self-reliance, education, transformation and landscape literacy, which also ran through many of the interviews, online survey responses and campfire conversations both during my research and throughout my career. In addition, Watson refers to the transformative and educational value of

bushcraft as a tool to 'draw out the real person' (2013). Thus he locates bushcraft skill acquisition as a corrective to societal impositions and hegemonies – that is, as a 'way of reaching through the false façade of society and what society leads people to think of themselves' (Watson 2013). This echo's Paulo Freire's concern with 'conscientization' in problem-posing, libertarian education. Bushcraft skills, Watson asserts, can expose 'truth' and 'reality' while exposing the 'lies' of society so that a transformation occurs in the process of their acquisition, leading to a greater valuing of self and thus to self-confidence. Freire (1970, p. 81) says, 'Whereas banking education anesthetizes and inhibits creative power, problem-posing education involves a constant unveiling of reality. The former attempts to maintain the *submersion* of consciousness; the latter strives for the *emergence* of consciousness and *critical intervention* in reality.

Bushcraft then, in Watson's formulation, transforms people's consciousness and brings greater valuing of the self and the 'fullness of life'. Watson positions his own role as that of a mentor whose work is to reach people and guide them through a transformative inner journey while they learn how to acquire the external skills and mastery required of bushcraft practice. In this way, bushcraft is simply the tool that he uses to educate people, thus recognising the transformative power of bushcraft skills: 'The unfinished character of human beings and the transformational character of reality necessitate that education be an ongoing activity' (Freire 1970, p.84). Thus, Watson's comments concerning 'truth', 'reality' and the uncovering of societal 'lies' is not politically neutral but can be situated as radical (interview 2013). This reveals bushcraft practice as implicitly libertarian or anarchistic and locates it politically as containing subversive and counter-cultural undercurrents.

Furthermore, Watson's quote locates a development of the individual personality within skilled-practices and activities of bushcraft. These skills are, at the same time, intimately entwined with the material constituents and circumstances of landscape. Therefore, it might be suggested that it is not only land skills that reside, at least in part, in the landscape itself but also the inner personal qualities and development, or 'conscientization' (Freire 1970), required to access them, thus conjoining self-realisation and nature in the activity of bushcraft skilled-practices. Thus, it could be said that the development of in-situ, land-based skill, such as friction fire-making, is simultaneously the development

of a relationship with nature that is emotionally invested and educationally formative in terms of qualities such as perseverance, patience and humility.

On an ethical level, this comprises development of what Aristotle termed 'areté', rendered as 'virtue' or 'excellence' (Aristotle 1976, p. 367). Areté is developed by learning about one's own inner qualities in relation to external events, for example in the way that Watson describes the process of learning fire by friction. Its acquisition increases personal honour so that those who demonstrate areté are pre-eminent, like Seton's 'Chief of the Council Fire'. Watson's (interview 2013) distinction between 'a desperate survival situation' and 'a problem that can probably be solved' is apposite. Those possessing areté 'will fear what it is natural for man to fear, but he will face it in the right way and as principle directs, for the sake of what is right and honourable; for this is the end of virtue' (Aristotle 1976, p. 128). Moral virtue, evidenced by personal honour, is reflected by the individual's response to external circumstances which, in turn, depends on the education they have gained – that is, the personal transformations they have undergone. In interviews (2011) with professional wilderness skills instructors at Boulder Outdoor Survival School in Utah, Kirsten Rechnitz echoed Watson's comments and echoed this moral virtue when she said of learning friction fire:

> The efficiency of looking it [friction fire-making] up on the internet doesn't really fulfill you in the same way as time spent in nature, learning, practicing and gaining experiencing does. And, although you can read a book about a hero or a very strong character, it doesn't mean you can become one without being involved in life, in such a way where you can give your full character – where you become an honourable being and do the right thing and know that the right thing comes from a deep place, not following some guidelines about what a hero is. So, I don't know how applicable it [friction fire] is or how important it is that anyone, like a computer technician or something, can light a fire by friction, but the practice and the patience and the experience of going through the mental patience and turmoil and holding it all together – and the excitement and bliss of actually getting that fire is all really 'growthing'…. It pushes boundaries that are not being pushed in modern society and gives you a better sense of some of the negative things – things you might call stress. How actually they can be really positive in the development of you as a person and your manner of handling the difficulties – it can bring you to a stronger place of yourself.

6.7 Learning through trial and error

The theme of 'trial and error' is repeatedly cited by bushcraft practitioners as being key to the learning process of bow-drill. Question six of my online survey

of students about friction fire-lighting was 'Please tell me as much as you can about your experiences of the process of learning to make fire by friction. And how would you describe this process?' (Appendix 2.1, Q6). Answers included the following:

1. Learning to make fire by friction using bow drill is a process of eliminating faults either in the set that has been made or in the technique of usage. My first attempt failed, as I did not have the physical stamina to continue working the bow. Now it is no problem; I now use a medium/thin drill; my first was way too thick. I ensure the set is at it's [sic] most efficient at all times so whenever I stop I always re-profile the spindle ends etc. Repetition is required to develop an understanding of how hard to press down on the spindle, how fast to bow, what actions to take if the set is squeaking, what actions to take if you are only getting light brown colored char dust, what woods work well together and which ones don't. (FFS, Q6, respondent F#17, 18th Sept 2014)

2. Bow drill took a lot of trial and error – getting the position right, getting the tension right, not letting the spindle fly off, making sure your foot is holding the baseboard firmly, making sure the bearing is lubricated, making sure the notch is the right size, making sure you have enough tinder, not rushing it, not talking too much time. (FFS, Q6, respondent F#11, 18th Sept 2014)

3. A lot of trial and error. It's easy to get the basic idea from books, but it takes finding what you're doing wrong and learning to correct it to become better. It's definitely a skill learned through practice. (FFS, Q6, respondent F#5, 18th Sept 2014)

4. Once I had a go, I realised how much there was to it... How many things you need to get just right. Bit by bit with trial and error, patience and energy things fell into place. (FFS, Q6, respondent F#2, 18th Sept 2014)

5. Learning this has to be a combination of visual and kinaesthetic input with feedback through personal trial and error. Adjusting the different elements of the technique in logical steps, starting with materials selection all the way to notch cutting and understanding the speed and pressure of the drill to create the ember. A big step for me was realising it is not all about speed and strength but much more about technique and taking a more measured pace. (FFS, Q6, respondent F#59, 19th Sept 2014)

6. Exhilarating! Demo first. Ages of prep work because only just started to learn knife skills. Ages of squeaking [the sound a damp bow-drill makes]. Ages of almost, so close, lots of smoke no fire. Then someone (Lisa) corrected a fundamental error I was making, I was blowing on the ember before transferring it to the buffed grass nest and essentially extinguishing it. Working out the types of wood I like to use was useful. Softer woods that don't require as much strength, really helped as I couldn't get the pressure on. I can remember the hours of trying in the rain…some frustrated students! … I practiced a lot to become comfortable in my ability. I remember being so proud as it came together, to know what I should do and when, those minute adjustments to angle of bow and spindle to keep the cord running in the centre, the amount of speed and pressure, knowing how to read the smoke

and sound and smells. I spent a lot of time practicing and it was so rewarding. (FFS, Q6, respondent F#67, 19th Sept 2014)

7. It was relatively easy to make a bow drill kit; pictures available showed the shapes required (e.g. Ray Mears' outdoor survival handbook) but in hindsight the high amount of effort expended was used to overcome the lack of technique and experience of why things don't always work e.g. longer taper at top of drill, slowing the pace, polishing the top of the drill/use of green leaves and spit, understanding the difference in smell of the smoke, impact of variations in the size of the notch – some learnt from pro's and others through personal experience. (FFS, Q6, respondent F#7, 9th Sept 2014)

8. The skill came once I was able to select the right dryness of wood, experimenting in different environments, and types of wood to expand on knowledge and muscle memory. (FFS, Q6, respondent F#33, 9th Sept 2014)

The above quotations are a representative selection of a number of answers that were received in response to an online friction fire survey questionnaire in 2014 (FFS Appendix 2) and corroborated through interviews, participation observation and personal experience. They express the way in which learning to make friction fire encompasses trial and error. Thus, it is not a straightforward matter of passing information from one person to another but one of a personal process of trial and error arising from an individual experimenting to find their own personal relationship with elements, forces and materials of the natural world. The importance of learning through personal time spent in nature and through trial and error was also highlighted in the general bushcraft survey (see Appendix 1.2, Q31.9). Skill, in this sense, synthesises the craftsman's skills of knowing what materials do, the alchemical skill of combining substances to create new forms and elements and, for example, the dancer's, martial artist's or gymnast's skill of movement and kinaesthetic awareness (eg Downey 2010, p.S36).

Trial and error is testified by bushcraft practitioners and bushcraft literature. For example, notable bushcraft educators, Tom Roycraft and Mors Kochanski say in an article for *Alberta Wilderness Arts and Recreation* magazine (1977): 'the technique of the bow and drill can be mastered, but only after arduous practice. The following article will try to eliminate much of the trial and error usually connected with this method' (Roycraft and Kochanski 1977, p.27) while Granger (1967, p.35) says 'most people are familiar at long range with the principles of rubbing two sticks together to make a fire, but it takes practice and a good deal of

trial and error'. Ingold (2000, p.353) summarises trial and error as 'through repeated practical trials, and guided by his observations, he gradually gets the feel of things for himself – that is, he learns to fine tune his own movements so as to achieve the rhythmic fluency of the accomplished practitioner'.

Ingold critiques Sperber's 'mentalist' model of knowledge transmission where transmission appears to take place miraculously between brains rather than between bodies with brains within them (eg Ellen and Fischer 2013). At every stage of the fire-making process there are embodied considerations, subtleties and variations that must be skilfully adjusted for and numerous potential pitfalls or 'trials' and 'errors' that are experienced, overcome and avoided if knowledge is to be internalised and skill to be gained. 'Trial and error', then, is the development of personal experience that often entails 'trials', not only of a physical or technical nature, but also of an inner personal nature. Experience, Milton (Milton 2002) suggests, 'is the impact of the environment on the individual' and so she says that it is *experience* that 'directs our attention to the *relationship* between individuals and their environment'. Furthermore 'it is within this relationship… that development of the individual and their knowledge, takes place' (Milton 2002). In learning friction fire, the environment is made up of the materials and the conditions of the natural world; therefore, the practitioner must consider a myriad of particulars against a matrix of external conditions and possibilities that are provisional and idiosyncratic. Thus, as Ingold further suggests, 'the essence of dexterity lies not in bodily movements themselves, but in the responsiveness of these movements to surrounding conditions that are never the same from one moment to the next' (Ingold 2000, p.353).

My field notes provide an example of that process. Taken from my own experience of teaching a group of individuals how to create friction fire on a damp day during a UK weeklong bushcraft course held in the Lake District in summer 2012, I wrote:

> In observing several individuals who were bow drilling under an improvised shelter in the forest, on a day when the weather conditions were of light rain and high humidity, I watched a number of individuals repeatedly failing to produce sustained embers. They were producing what should have been viable embers, but the embers kept 'dying'. Their skill and techniques were good, and on inspecting the quality of the dust they produced, it occurred to me that they should have been producing sustainable embers – I could see nothing obviously wrong with

> individuals' technique, or their materials. Puzzled, I took into account the weather – it was damp and humid, and we were located in a very subtle depression in the landscape that was collecting the still damp air. As such, I suggested they relocate their activities to an area outside of the parachute 'roof' and to a slightly higher area of ground, where the conditions were subtly different. Unconvinced, because of the need to move out from under the improvised cover and become exposed to the weather, only one individual followed my advice. He immediately produced a viable ember on his next attempt, which he successfully transferred to tinder and blew to flame, despite exposure to light rain. The other two persisted through several more failed attempts and then relocated also, both producing embers immediately in the new location. Whilst they relocated their efforts only yards away, and to an area exposed to rain, they could now succeed because the ambient air contained less water, allowing the embryonic embers more airflow and leading to success.

This example illustrates the micro level at which individuals can realise and respond to environmental conditions for the skillful application of knowledge. It also usefully exemplifies how, although general rules may be transmitted, only individual experience allows for the kind of personal interpretation that develops in-the-moment adaptations and thus arises as experience that in turn creates skill.

The adaptation that typifies trial and error has the nomadic quality discussed in Chapter 4. Only when a relationship is made with the landscape and materials of a particular locality does it become possible for bushcraft skills to travel. Furthermore, the development of gnosis in a new location is dependent on having achieved that relational knowledge in a previous location. Profession practitioner, Ben McNutt, highlights the universal and local principles of bushcraft knowledge and its transferability when he speaks of his ability to make friction fire across a range of ecologies – through various jungle, sub-arctic and arid regions. In interview, he provided me with the following example:

> I was once asked to travel to a jungle area of Belize to provide survival training for participants of an extreme adventure race. I was told that, upon arrival, I would be shown the regional specifics of tree species and their wood types by a local expert. Although the expert may not have been conversant in the particulars of friction fire lighting, it is helpful to be able to use local knowledge to provide a greater opportunity to find workable materials. However, upon arrival, I was told that the local expert was not going to be available after all and, with only a day or so to prepare to demonstrate and teach bow-drill fire in the unfamiliar jungle environment, to a group of Western adventure racers, I had to simply walk into the jungle and somehow find something that could work. The landscape was unfamiliar and I didn't know names of the tree species and I wasn't familiar with their properties, and so I had to literally 'feel' my way around. I eventually found some standing deadwood that felt perfect. It was light and yet dense enough…indeed I remarked to my companion that it felt and seemed to behave just like the European Lime tree species (*Tilia cordata*) which is perhaps the best

> species for friction fire in the UK. I snapped the dead branches out of the tree, took them back to camp and quickly produced friction fire with easy success. I still don't know the name of that tree, but I could feel straight away that this had the right qualities for friction fire. This is how bushcraft works – you learn the feel of things and what you might be able to do with them and then you experiment. But, of course, you need to have experienced that in your own area in order to know what you are looking for in an alien environment (Ben McNutt, Interview 7th September 2012).

6.8 Friction fire and materiality

At the annual UK Bushcraft Show event in May 2012, a professional practitioner of one of the main companies in the UK delivered a presentation on the show's main stage which concerned, in large part, frictional fire-lighting. This presentation described, in detail, the chemical processes that occurred within wood during the frictional fire-lighting process. Slide after slide showed the molecular configurations of various hydrogen and oxygen molecules while the audience was talked through the chemical transformations that occur as, for example, friction produced heat in relation to wood cellulose. This presentation represented an unusual approach that seemed somewhat at odds with what one actually needs to know in order to make a fire using friction. The positivistic style stood out as being quite detached from the lived experience. Thus, while providing an unexpected lesson in chemistry, it confirmed the tacit and intuitive, felt and alchemical, practical and pragmatic qualities that practitioners are required to gain in order to learn to make friction fire in real-life contexts.

Jane Bennett (2010) distinguishes between these two broad types of knowledge by contrasting scientific knowledge and the craftsman's knowledge of materials. Bennett (2010) provides a distinction between knowing what materials are made of and knowing what can be done with them. In writing about metallurgy she points out 'that it was the human metal workers' intense intimacy with their material that enabled *them*, rather than (the less hands-on scientists), to be the ones to first discover the polycrystalline structure of nonorganic matter' (Bennett 2010, p.60, original emphasis). It is thus 'The desire of the craftsperson to see what a metal can *do*, rather than the desire of the scientist to know what a metal *is*, [which] enabled the former to discern a life in metal and thus, eventually, to collaborate more productively with it' (Bennett 2010, p.60). Thus, the knowledge required by the bushcraft practitioner to become enskilled in

frictional fire-lighting is akin to Bennet's craftsmen who must collaborate with and discover for themselves what materials can do, rather than what they are.

Gilles Deleuze and Felix Guattari assert that, in the world of life, the essential relation is not between matter and form, or substance and attributes, but between materials and forces (Deleuze and Guattari 2004, p.377). Following Deleuze and Guattari, Ingold (2000, p.2) explains that 'It is about the way in which materials of all sorts, with various and variable properties, and enlivened by the forces of the Cosmos, mix and meld with one another in the generation of things'. This leads Ingold to argue for the primacy of 'processes of formation as against their final products' (2000, p. 2). Deleuze and Guattari insist that 'whenever we encounter matter, it is matter in movement, in flux, in variation' and the consequence is that 'this matter-flow can only be followed' (Deleuze and Guattari 2004, p.451). To follow these materials, Ingold suggests, is to enter a world that could be paralleled with that of the kitchen of the cook, the materials of the artist and the laboratory of an alchemist (2010a, p.9). Alchemy, art historian James Elkin highlights, did not describe a world by means of scientific principles, such as atoms and molecules, but describes one of *substances*, which were known by what they looked and felt like, and by following what happened to them as they mixed together, heated or cooled (Elkins 2000). For example Elkins (2000, p.18) says:

> To the alchemists, oils were not hydrocarbons: they were a kind of fluid among many others, with affinities to steams and vapors as well as spirits, waxes, and sludges. Oils were what rose to the surface of a pot of stewing plants, or sat dark and fetid at the bottom of a pit of rotting horseflesh. That is the uncertain world that needs to be evoked in order to think back to the world of alchemy.

'Alchemy', writes Elkins, 'is the old science of struggling with materials and not quite understanding what is happening' (Elkins 2000, p.16) or, in terms used by bushcraft practitioners, the science of 'trial and error' with materials and forces. In frictional fire-making, like alchemy, materials and forces are manipulated in order to create a new element: fire.

Thus, as with artists, cooks and alchemists, bushcraft practitioners must learn and comply very specifically with the limits and conditions of natural materials, which are infinitely variable in themselves, and to follow them in order to learn what they will *allow* a particular individual with particular physiology

and skill level, under particular circumstances or in a particular ecology, to do. During participant observation, one instructor called this 'the goldilocks affect – you have to get it all "just right"' (Ben McNutt, 21st July 2014). Put another way, the materials of nature, in relation to what is done with them, dictate to us precise ways in which we obtain affordances in the landscape. In this way, then, 'Affordances are, in essence, relational' (Costall 2007, p.69) and the relationship they require is characteristically one of inter-subjectivity. Tony Bristow, founder of Bushcraft UK online forum (BCUK), suggests:

> For me, learning the principles and applying them was the main thing, being able to find the right woods etc. came with experience. I was taught what wood worked, what to look out for, then taught how to shape the components, *then how to combine them and create a mechanism that worked with my body, bracing and arm action for making it work.* It was great, just learning those principles opened up all sorts of experimentation and understanding so that I could learn on my own and also understand when others were teaching me in the future. It also teaches patience and about being prepared so the process is huge in a way, although straightforward. (FFS respondent, Oct 2014 – my emphasis)

6.9 The role and relevance of fire-making skills for bushcraft practice

The role of friction fire in bushcraft practice is of central significance due to the meaning and emotional charge that it carries for practitioners. For those who make fire by friction, powerful emotions are experienced. Instructors report regular occasions where their students react with tears to both failure and frustration and/or to success and elation. And, whilst the process of learning friction fire was often related to strong feelings of frustration, the moment of success was equally explained by feelings of joyful exuberance. The following responses are taken from my online survey about friction fire (see Appendix 2.1). They are responses from practitioners who reflect how they *felt* at the moment when they first achieved friction fire:

1. Exhilarated. I still get some of that feeling whenever I light a fire by any means, there is something atavistic about it. (FFS, Q7, respondent F#25, 18th Sept 2014)

2. The whole process was elating, infuriating, frustrating & ultimately very rewarding! (FFS, Q6, respondent F#38, 18th Sept 2014)

3. Magical! Thrilling and life changing which is why I teach it to anyone who wants to know. Wonderful to connect with our ancestors and humanity. (FFS, Q7, respondent F#19, 18th Sept 2014)

4. Very good. Like any skill to produce something, there is a magical feeling of creation. The fact that it is so primal seems to add to this effect. (FFS, Q7, respondent F#12, 18th Sept 2014)

5. A whoosh of relief and alchemical joy… and a deep part of me feels connected to my ancestors. (FFS, Q7, respondent F#16, 18th Sept 2014)

6. That first burst of flame is an incredible moment, perhaps tapping into a primitive instinct. The fact that it's hard earned, adds to the satisfaction. (FFS, Q7, respondent F#30, 18th Sept 2014)

7. Friction fire is one of the primordial skills. There has never been a fire created this way that doesn't create the biggest grin ever. (FFS, Q7, respondent F#34, 18th Sept 2014)

8. Very happy, a little eye moistening that I had done it. It becomes the holy grail of bushcraft! (FFS, Q7, respondent F#67, 18th Sept 2014)

9. It seemed like a miracle,… the feeling of satisfaction was immense, even now each fire is another story, another memory and when it is by someone you have taught, its unexplainable the emotional reaction from each person makes it worthwhile. (FFS, Q7, respondent F#70, 18th Sept 2014)

10. It felt brilliant, like I'd been transported back hundreds of years for just an instant. (FFS, Q7, respondent F#56, 18th Sept 2014)

11. It was amazing. I felt in touch with our ancestors. I also felt like I was suddenly free from the trappings of modern life. I felt like I uncovered something that was hidden deep inside and that subsequently I have access to the information to do it at will. (FFS, Q7, respondent F#57, 18th Sept 2014)

12. It felt like I had reconnected with my ancestors – in some weird way.... It still does each time I get that bundle flaming. (FFS, Q7, respondent F#60, 18th Sept 2014)

Informants described feelings of joy and elation, deep satisfaction and reward for effort, increased self-confidence and a feeling of connectedness to both the essence of humankind (often described as 'primal') and the natural world. That joyful feeling was commonly described as numinous, expressed in transformational terms such as 'magical', 'primal' and 'alchemical'. When asked what meaning the ability to achieve fire by friction held for the individual, the responses could be broadly grouped into two somewhat overlapping categories that formed two sides of the same coin: i) that it meant they felt connected or re-connected to the idea of an essential humanness, expressed by words such as 'primal', 'ancestral' and 'primordial', and related to a 'primitive technology' or a 'hunter-gatherers state'; and ii) that it meant they carried a feeling of security,

confidence, pride, self-reliance and freedom. Appendix 2.2 contains a selection of quotations that illustrate these meanings.

Respondents' accounts describe a new, cathartic connection to the natural world, expressed as an expansion of their usual human relationships, to incorporate a subjective, living nature that is permeable to an archetypal 'hunter-gatherer' or 'primal' state of being. This relationship is both revealed and powerfully encapsulated in their ability to produce fire in the most 'ancient' ways, collapsing the dimension of history into a fluid oneness with everyone, everywhere who has ever had the same experience. This new world-view is specifically referenced to a pre-agricultural relationship between man and nature that is enacted and felt so powerfully and emotionally upon producing fire by friction. The individual no longer simply visits nature and admires an aesthetic landscape or works the land for economics but participates intimately with it, in a new, embodied understanding of interdependency and intersubjectivity. Friction fire practices provide a rite of passage, therefore, through which the practitioner passes by enacting an archetypal, ancient relationship with –and in – the natural world. This re-connection occurs at a deeply psychological level.

> What is a cynical, agnostic engineer doing talking about the 'spiritual' nature of something that can be fully explained by the laws of physics and chemistry? All I know is that there are some things that make me feel good and starting a fire the way my ancestors did 10,000 years ago is one of them…On the evaluation of a weekend course I gave a couple of years ago one of the students said, 'Starting a fire is a sacrament'. I guess it is. (Baugh, cited in Wescott 1999, p. 33)

The sacramental nature of fire-making suggested by Baugh is reflected in the sense of 'sacredness' specifically associated with fire by friction. It is also suggested by the qualities of magic, primacy, alchemy and ancestry, combined with self-reliance, freedom and self-confidence, which other respondents describe as their emotional response to making fire by friction.

6.10 Friction fire and the sacred

Prophylaxis against evil is a traditional magical association for friction fire. It is exemplified by the ritual friction fire practice known in Scottish Gaelic as '*teine-éiginn'*, which Kelly tells us, has been variously translated as 'need-fire', 'will-fire', 'wild-fire' or 'force-fire' (1863). Quoting from the *Chronicle of Lanercost*

of 1268, Kemble (1849) relates the 'pious horror' with which 'the practice of extracting fire from wood by friction' (or need-fire) was recorded – a practice that continued well into the nineteenth century. An early discussion of the ritual importance of making fire by friction is provided by Kelly's (1863) account of kindling this 'wildfire'. Quoting from Jacob Grimm's (1835) *Deutsche Mythologie*, Kelly (p.46) says:

> Fire that had long been in human use, and had been propagated from brand to brand, was deemed unfit for holy purposes. As holy water needed to be drawn fresh from the well, in like manner fire which had become common and profane was to be replaced by a new and pure flame, which was called 'wildfire,' in contrast with the tame domesticated element. Fire from the flint was no doubt fairly entitled to be called new and fresh, but either this manner of procuring it was thought too common, or its production from wood was regarded as more ancient and hallowed.

Here, the communal production of wildfire for specific religious festivals is explicitly a sacred act, providing a psychologically real link between the divine presence and a vernacular, carrying with it the inspirational sense of luminosity when the sacred fire appears. In the Greek mythology that underlies its philosophy, Hermes 'was the first to invent fire and firesticks for making it' (Cashford 2003, p. 60). This is important because, as Kerényi (1976, p. 1) points out, 'for the Greeks their god Hermes was not a mere nothing, as he is for contemporary man; nor was he a formless power. He was something very precise'. Following Kerényi, Cashford (p.14) defines the key quality of Hermes as 'Imagination':

> …the range and power of the Imagination have been extended into consciousness. We do not now only have to talk of Inspiration – the 'breathing in' of a god, or the god breathing in the mortal – but of images that consciousness itself can justly relate to if it honours, the *temenos*, the rituals and laws of Imagination.

In Kerényi's terms, then, Hermes 'sees through' the wood into the fire it conceals, utilising the questing qualities that Cashford defines as 'Imagination' and specifically bringing into relation 'two dimensions of being' – the wooden firesticks and the will and imagination of their operator – to unite them in a new

whole: fire. Much of the practice of teaching focuses on these particular qualities: learning how to see hidden possibilities in landscapes and materials that, to the unimaginative or uninitiated, may seem hopelessly limited. This is the quality that Greek literature and philosophy termed *metis*, the ability to make fine distinctions and to deploy them in practice so that, as Baring and Cashford (1991, p. 339) translating Sophocles point out:

> Through *metis* a man is a better cleaver of wood than through strength; through *metis* the pilot steers his swift ship through the storms in the dark; through *metis* the charioteer gains the upper hand over his fellows.

In the psychodynamics of bushcraft practice, therefore, the ability to make fine distinctions meets the imagination in careful, willed, deliberate action. For that action to succeed, however, the practitioner must have developed both their internal and external praxis, to have made the relationship with their environment that provides them with essential knowledge about it – *gnosis.* That relationship must be made anew each time, since the environment changes, even in the same locality. An effort of imagination is required each time the practitioner enters the field, therefore, and a greater effort when they are journeying and moving into new, less familiar environments. Mythologically and psychologically, therefore, it is unsurprising that Hermes the Imagination was also (Kerényi 1976, p. 15) 'constantly underway: he is *enodios* ("by the road") and *hodios* ("belonging to a journey") and one encounters him on every path'. This larger role of Hermes, as 'belonging to a journey', relates directly to a prime purpose of bushcraft in enabling us to travel lightly, secure in a phronesis that integrates with the landscape and its imaginative possibilities.

6.11 The freedom of friction fire

But fire is also synonymous with hearth and home and thus, if an individual has the ability to make fire directly from the materials that nature affords and has intimately understood the universal principles of fire-making through local materials, then it follows that such an individual feels that they possess the possibility of making fire in an array of locations and circumstances. The ability to produce frictional fire gives rise to a feeling of being 'at home' in nature (and thus outside of mainstream society) since, in principle, one can produce the

fireside, hearth and home wherever one needs, using one's own skill in relationship with nature's affordances. The aesthetic is one of joy, not conquest, and the relationship is one of nurture, not survival.

The absence of fear produced by the presence of skilled practice engenders feelings of empowerment and freedom from the restraint of modern technology, thus leading to a transition from perceived reliance to non-reliance upon modern technology and an independence from the society that relies upon it. Bonds are broken, at least psychologically, and individuals' confidence in themselves as being able to provision themselves from raw materials, afforded outside a transactional economy, might be interpreted as ideologically subversive, whether this is conscious or not. This subversion or eschewal of capitalist, urban Western production systems, is fundamentally about 'freedom'. Professional bushcraft educator Dale Collett, expressed this when he said of the simple technology (but sophisticated technique) required of the two-stick hand-drill method of friction fire:

> Ultimately it's about freedom!!…I don't even need a knife. Its about letting go of fear, letting go of produced stuff and getting what you need for yourself, without needing any 'stuff' to get it. The beauty of hand drill over bow drill, is that you don't even need a knife, or string…nothing…you can watch my YouTube video where I go out with no tools at all and just use stones and sticks and have a fire in an hour using hand drill – it is so deeply liberating to have this skill, which is simply carried in my mind and muscles, where I can't lose it or be separated from it, like I can with a knife or a piece of string that I need for bow drill… so I have no fear of separation from gear that I am reliant on, because I don't have it in the first place … and I know that ultimately I don't need it'

Separation from economic dependency was also expressed in an interview with leading bushcraft educator Juha Rankinen who, when asked why not simply use a match, why even teach friction fire, immediately responded, 'I have to *buy* a match'. Executive Director of Forest Schools Education, Paul Moseley, provided a similar response in interview (2015), adding: 'think of all the extractive systems, the associated pollutants, the workers, the machinery and the factories required to house production, just to bring one match into my hands in the wilderness. I don't want to feel I have to rely on all of that'. Moseley did not mean, of course, that he always produces fire using friction, rather he was pointing to the principle he valued in friction fire production – that it was free from all societal production systems; that it is direct and unmediated; that it is

self-sufficient. Its production, therefore, can be seen to symbolise uncorrupted civilisation, a sacred act that is separate from mundane urban life. Friction fire symbolises freedom from industrial production systems. If the creation of fire is symbolic of humanity as the only species capable of creating fire, then friction fire is symbolic of man's physical humanity. Friction fire directly restores the labour of making fire to the individual as an immediate reward, suggesting that it may provide a creative response to Marx's concern about the estrangement of people from their 'species-being' by industrial capitalism. Although the modern bushcraft movement is commercialised, many practices – including making fire by friction – are seen as taking place outside capitalist markets. The act of friction fire thus resists, and to some extent subverts, capitalist forces by providing an alternative narrative of social practice. Following de Certeau (de Certeau 1984), I suggest that such practices can be interpreted as being 'tactical'. 'Tactics' are 'ways of doing' as asserted through the 'everyday practices' of ordinary people who unconsciously subvert hegemonic forces in an attempt to reclaim a measure of autonomy from the omnipresent forces of economy, politics and culture (de Certeau 1984 p. xiii). 'These practices bring into play a "popular" ratio, a way of thinking invested in a way of acting (de Certeau 1984 p. xv).

Chapter 7 : Trapping: The 'Figure-4' Deadfall

7.1 Introduction 7.2 Characteristics of the bushcraft trap 7.3 Constructing a figure-4 trap 7.4 The role of trapping in wilderness survival and bushcraft 7.5 Trapping in bushcraft education 7.6 Trapping ethics in bushcraft education 7.7 Trapping and tracking 7.8 Imagination, identification and empathy in trapping

7.1 Introduction

Animal trapping, or simply *trapping*, is the use of a device to remotely capture and/or dispatch an animal. Animals may be trapped for a variety of purposes, including food, trade, hunting, pest control, biological conservation and wildlife management. Trapping is a highly regulated activity in many areas of the globe, with *ad hoc* trapping usually being strictly prohibited in the West. Modern trapping methods differ from traditional trapping methods insomuch as they utilise modern materials such as metals and plastics, which are used to form springs, cables, jaws, cages and other trap components, and combined to form the trap mechanism in its entirety. Modern commercial traps are usually manufactured to target specific species and to be used by the trapper in a pre-produced state – the device still requiring, however, sophisticated land-based skills and naturalist knowledge in order to be positioned and set. In addition, there is a vast range of modern lures, baits and camouflage apparel now commercially available to the modern trapper in order to entice game animals into a trap. In contrast, the techniques of *traditional* or *natural* trapping mostly utilise natural materials and trappers must produce and assemble the trigger mechanism themselves combining knowledge of the material affordances of the natural surroundings with knowledge of their qualities – for example, the elasticity of particular sapling tree species. These techniques combine knowledge of animal habits, senses and habitats to create a deception using natural lures and baits. Traditional trapping technologies are now illegal in most circumstances due to their perceived inhumane and/or unethical effect on wildlife and ecologies – being non-selective, for example (BASC, 2013; AFWA, 2006).

The idea of fashioning and employing 'traditional', 'primitive' or 'natural' trapping technologies and techniques for the purpose of capturing wildlife, as an emergency food provisioning activity for wilderness survival, is significant within contemporary bushcraft practice. As such, the figure-4 deadfall trap represents the most established primitive trap type that has been adopted and then widely

accepted as part of the global curriculum. However, the art and practice of trapping animals for food using primitive and expedient methods is not typically realisable in the West. This is due to lack of opportunity for engagement, as a result of legal prohibitions coupled with ethical considerations concerning the use of primitive style trapping methods in modern urban contexts. Trapping is a highly regulated activity in most Western countries where bushcraft practice is a popular recreational pursuit, such as the UK and USA, with primitive traps being especially forbidden.

Trapping techniques advocated within bushcraft practice most often fall under the common designation of either primitive traps or survival traps. 'Survival' traps refer to self-made contingency devices constructed from makeshift materials available to the individual at a time of need, and so refer to the extemporary use of both natural and man-made materials or, more usually, an expedient combination of both. The construction of a survival trap holds no commitment to a purist ideal concerning the choice of materials. Rather, in the context of survival or self-preservation, trapping and trap-making is characterised by its impromptu character, most typified in military-style survival training and in that of civilian preppers. In contrast, 'primitive' traps refer specifically to self-made traps that would have been constructed by pre-industrial peoples, such as, it is suggested, those produced by 'stone age' man and by pre-contact indigenous peoples who may or may not continue such traditional practices. The modern construction and use of primitive traps is a feature of the Western development of the movement of 'aboriginal living skills' or 'primitive technology' (see Chapter 3 of this thesis), which explores and recreates the traditional technologies of such peoples in a way that is somewhat affiliated to experimental archaeology and living history (see Chapter 3). However, traps that are commonly embraced within *bushcraft* practice span and entwine features and ideologies of both survival and primitive trapping techniques and technologies. At the same time, primitive trapping techniques share a relationship with military survival training and the prepper approach that asks 'What can I achieve without technology if have to?'

As discussed in previous case studies, bushcraft practitioners seek to minimise their use of technology by maximising skill and technique unmediated by modern materials. At the same time, however, they recognise that simple/select technologies such as modern cordage, clothing and cutting tools are highly

pragmatic in wilderness contexts. This is because bushcraft is a modern tradition that has emerged from the hybridity of frontier contact with other cultures, where Western and indigenous technologies were pragmatically combined by explorers, traders and combatants to provide the best solutions and tools for extended wilderness life. Consequently, the trapping syllabus spans an array of approaches that encompass both the 'primitive trap' and the 'survival' trap and draws upon the skills and ideologies of both. Bushcraft thus engages with the idea of go-anywhere global trapping methods that first emerge with the text-based codification of traveller-explorer knowledge during the Victorian era, and have been further developed by modern militaries.

7.2 Characteristics of the bushcraft trap

The characteristics of the bushcraft trap are that it is improvised from natural materials that are found in the local landscape, it is self-made using simple, pre-manufactured steel hand-tools (such as the bush knife, saw and/or axe), often in situ, and without recourse to industrial technologies of manufacture, excepting perhaps (but not necessarily) a knife and some cord. In this way, production of the parts of the 'bushcraft trap' (in contrast to a manufactured commercial trap) emphasises the use of raw natural materials from the local environment. Also required is knowledge to select, construct, position and set such a trap so that it may result in the successful dispatch of an animal. Such an approach necessitates a profound understanding of landscape and local ecology, its inhabitants and material affordances as well as the various features of both primitive trap-*making* and the subsequent deployment of the trap.

In this chapter, I take, as my focus, the particularities of the trap type known as the 'figure-4 deadfall trap' and its relationship to traditional indigenous knowledge through its prior relationship to both survival and primitive traps. The figure-4 deadfall trap is espoused by both the survivalist and the primitivist alike, and has now been resolutely adopted in bushcraft practice where it has been advocated as a simple, effective and humane trap. It is easily effected from natural materials found across diverse ecologies (from arctic to desert) and can be employed to capture a wide range of fur-bearing mammals for food and other materials. In this way, the figure-4 deadfall trap is perceived as a viable food-acquisition skill congruent with the central ideology of bushcraft – self-reliance in

nature – and thus forming a popular, universal and representational item on the current curriculum.

The figure-4 deadfall serves as a useful case study through which to elucidate the relationship between bushcraft and indigenous knowledge, and the fluidity of practice. In this chapter, I explore the way in which bushcraft relates to indigenous knowledge through the prior development of both survival and primitive living skills. This is achieved through a survey of the historical literature, through fieldwork involving participant observation and interviews and a questionnaire survey. I begin with the self-made, improvised trap and the figure-4 deadfall trap. The second part of the chapter takes a closer look at what trapping knowledge is, how this is acquired and transmitted, perceived and used. The final section explores the meanings of trapping in bushcraft and its relationship to known features of indigenous knowledge.

The natural animal-trap is a device that involves 'the harnessing of some natural force, current, weight, spring, and so on, *to do man's work'* (Mason 1900, p.659, emphasis added). However, to effectively harness natural forces is fundamental to the trapper's skill in negotiating the tensions between 'movement and obstruction, of release and execution, which vies in delicacy with the destructive weapons' (Mason 1900, p.659). And so, within the various mechanical trap designs, gravity, energy and elasticity are harnessed alongside man's personal intention to encage, seize, maim, crush, wound and impale the victim. American Ethnologist and Smithsonian Institution Curator Otis Mason, in 1900, hints at the conjoining of man and animal in the activity of trapping when he says that 'There exists in the trap both the mental activity of the animal and that of the man' (1900, p. 659). Such an encounter of the mind of the hunter/trapper with that of the prey, projected into an imagined future act, is thus a highly imaginative endeavour (Liebenberg 1990, p.v). It is these intangible but critical features of trapping – the encounter of hunter with prey, imaginative projection, time-travel and empathy – that are the focus of this chapter.

When Mason points out, therefore, that 'a trap is an invention for the purpose of *inducing animals* to commit incarceration, self-arrest, or suicide' (1900, p. 657), emphasis added), he alludes not only to the mechanics and physics of traps, but also to the intrinsically personal and relational nature of trapping. In order to successfully compel or entice a creature one must first understand

something quite personal about the habits and desires of one's prey. To 'enter into the mind of the animal' is a phase commonly espoused by hunters and trackers, thus tracking is intimately bound up with trapping – or hunting of any sort. Hunters must learn their prey's habits and quirks, likes and dislikes, in order to know what, when, where, how and under what circumstances an animal might be persuaded and enticed into a trap mechanism. Thus, to induce or indeed trick an animal in this way, the trap must act as 'an ambuscade, a deceit or a temptation' (Mason 1900, p.659), and so the trap is imbued with personal abilities to deceive and entice; that is, 'the thought of the hunter must be locked up in its parts' (Mason 1900, p.660):

> In the matter of automatism there is no great gulf between the trapper and the hunter. At both ends and in the middle of the trap's activity the man may be present, but not to the victim. Not waiting for the victim to go to its doom of its own will, the hunter, having set the trap, proceeds to entice and compel the game; he has learned to imitate to perfection the noises of birds and beasts – it may be those he is hunting, of others hunted by them or their enemies; – he knows the smells that are agreeable and the dainty foods most liked; on the contrary he also knows how to allay suspicions in one direction, to arouse them in another, – always with the trap in his mind. (Mason 1900, p.658)

7.3 Constructing a figure-4 trap

The figure-4 deadfall trap is what Lips (1949) would have called a gravity trap, Mason (1900) a killing trap and Wiseman (1986) a 'mangle' trap (Appendix 3), all of which employ the fall of a weight to crush the victim, released by means of an unstable catch or trigger placed between the lure and the execution to be done. The art of the trigger mechanism is that it must be strong enough to hold the weight or the 'fall', yet delicate enough to be released swiftly at the slightest disturbance. The trigger mechanism, commonly known as 'the figure-4 trigger', fits this description; it utilises three sticks that are assembled into a formation that resembles a figure of four – thus giving rise to its name (Figures 1 and 2). The three sticks that make up the figure-4 catch are: 1) the upright 'vertical bar'; 2) the horizontal bar as the 'trigger bar' and 3) the 'oblique bar', which holds the tension that will be released when the horizontally positioned trigger bar is disturbed. Whilst it is clear that the figure-4 trigger derives its name from its formulation (Figure 7.1), it is also worth noting that the name 'figure-4' often falsely leads the inexperienced individual to set up an incorrect arrangement of these three sticks,

as illustrated in the ‘wrong way’, which Harding usefully draws his readers’ attention to in Figure 7.1 (1907, p. 60). This may seem like a minor detail, but it was significant enough for Harding to illustrate in 1907, and was frequently mentioned in my interviews with leading bushcraft practitioners and instructors. The distinction was used to

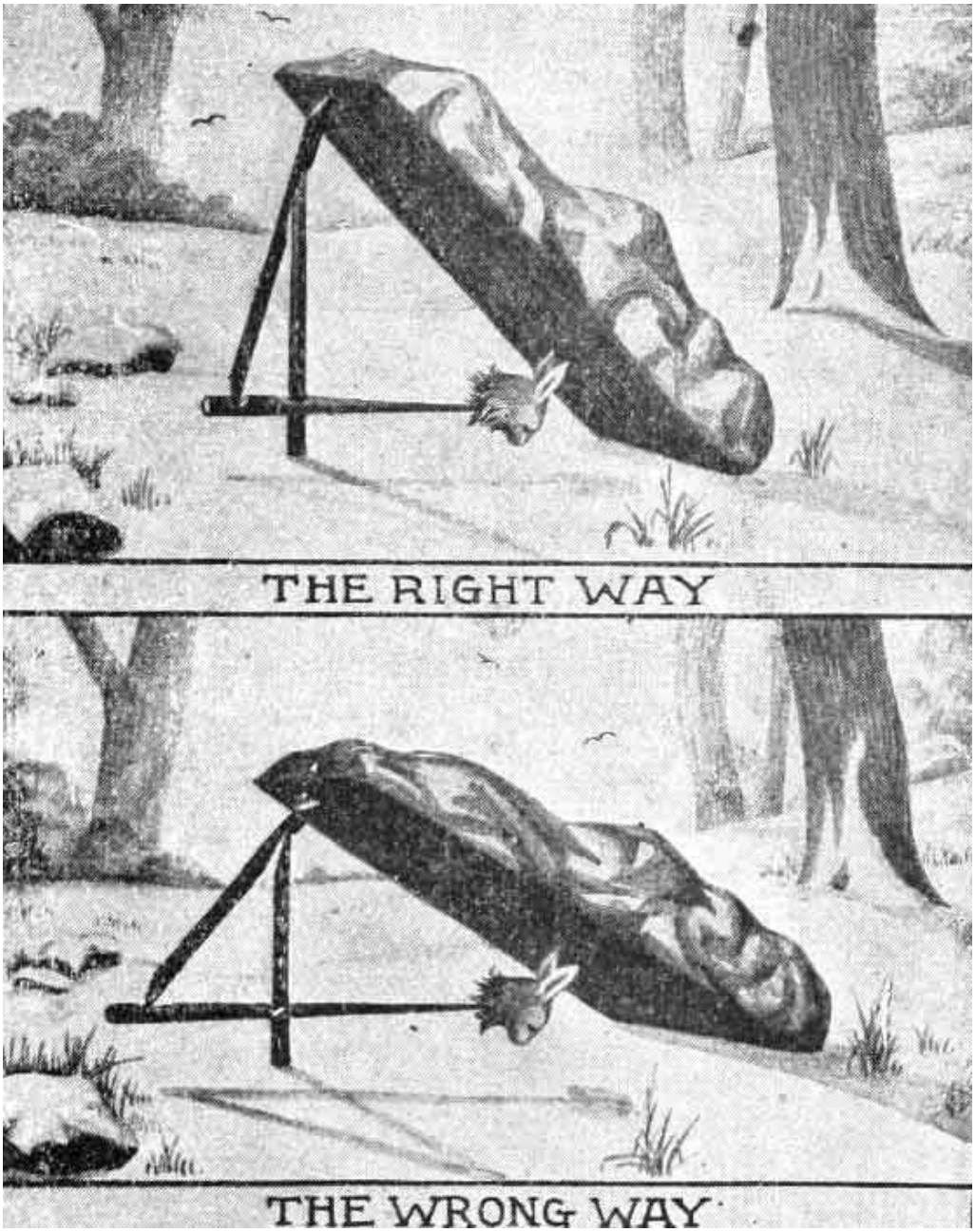

Figure 7.1: Illustration by Harding (1907, p.60) in which he demonstrates the common mistake it setting the figure 4 deadfall trap.

illustrate a subtlety within the technique that was demonstrative of whether an individual had a deeper knowledge of trapping/had been taught by an individual who 'knew their stuff'. Director of Forest School UK, Paul Moseley, stated, 'It is these details that tell me if someone has created something that *looks* like a figure-4 or if it is something that will *actually* service as a figure-4.' (P. Moseley, interview, 17th Dec 2014)

To construct a figure-4 trigger, the three sticks are carved, notched and fitted together as shown in Figure 7.1 and, if correctly set, should resemble Harding's 'the right way', usefully depicted (1907, p.60) in the uppermost illustration of Figure 7.1. This more upright and 'closed' figure four arrangement, with the oblique bar sitting at a steeper vertical angle allows for superior strength and a finer trigger; consequently, a smaller trigger 'set' may be effectively used to load a larger weight, thus being effective on a larger animal precisely because it can hold more weight. As I understand it, this feature becomes particularly important when trapping large animals such as bear. The problem with the lower illustration, which demonstrates Hardings' 'wrong way' to set up the figure-4, is the wider angle of the tension bar. This means that the weight of the rock that pushes down upon it will force the oblique bar harder into the notch created to delicately 'hold' it in the trigger bar, and the whole trigger becomes more rigidly held and thus locked together in bearing the load; this detail potentially compromising the delicacy of the trigger. What is more, if the unstable catch is loaded with too much weight, then the oblique tension bar can snap at about the point that the upright bar is notched into it. Nevertheless, this less effective arrangement is the one more commonly illustrated and, therefore, more commonly espoused and practiced which serves to illustrate one way in which descriptions of technique may become distorted when isolated from practice. It emphasises the importance of practice-based understandings of how the figure-4 trap is used and taught. Relevant to this is Appendix 3's detailed historical review of how the figure-4 deadfall trap entered bushcraft. In line with the processes described in Chapters 2 and 3, it emerges both through early ethnography and via manuals such as Galton's (1885) and Pocock's (1909). However, although Seton (1912) makes mention of the deadfall trap as being 'sufficient for all the legitimate work of the trapper' (1912, p. 370), his focus is not on animal trapping but on animal *tracking*. Seton's foundational study of wildlife and their tracks, trails and signs, commenced in

1882 and, published as the *Life Histories of Northern Animals* (1909), it marked a minimisation of trapping skills within recreational woodcraft and a foregrounding of the joy to be found in closely observing animals' signs and behaviours. Baden-Powell's enthusiasm for military scouting produced a similar emphasis on tracking and fieldcraft in the Scout movement, but with an emphasis on spying on people rather than observing wildlife for pleasure (eg Baden-Powell 1915). Trapping guides thus became located in the realm of the commercial trapper, on one hand, and as a part of military survival training on the other.

By the 1980s, military survival manuals tended to focus on trap mechanisms, with little explanation about how and where to set them, as well as the broader field knowledge required to do that: there was an implied assumption that knowledge required to make a trap was equal to the knowledge required to catch an animal. Concurrently, a confluence of archaeological reconstruction with ethnography produced a new focus on the Paiute Indian deadfall trap, which was imported into 'primitive skills' training by Larry Dean Olsen and subsequently popularised by other practitioners and trainers. This summary, therefore, shows how indigenous knowledge, reported through ethnographic observation, has been employed as part of a global travel skill set. It also demonstrates the convergence and divergence of military training, survivalism and the scouting and woodcraft movements with this universalised knowledge, to produce current educational practice in bushcraft trapping.

7.4 The role of trapping in wilderness survival and bushcraft

> Figure four dead falls are fun to learn; they are gimmicky mechanical things that attract students and give them something to do with their knives. They have some use in dire need survival situations in the right circumstances and when used with other food procuring options… Modern survival in this day and age is about having a plan in case something life threatening happens; a situation that denies the human body air, shelter, water and food outside of survivable tolerances before getting rescued. Primitive trapping skills may be useful only after all the other necessities are met since the human body can go without food for weeks. And even then, there are no guarantees. So, as a survival tool, primitive trapping techniques have some use – with the figure four dead fall being of limited use – depending on the area, and as a last ditch option. Primitive hunting and trapping techniques are illegal in many areas. Most of us nowadays can only make the traps but not use them anywhere public. So even though they are fun, they are not really useful or an important part of the bushcraft hobby and enjoying nature. (Survey respondent, 2014)

The activity of primitive/survival trapping often rests upon a 'what if' scenario. This is because expedient trapping technologies are almost always perceived and taught as 'employ only in emergency or in dire need' techniques. Therefore, primitive trapping is not often regularly practiced in an authentic context. This, then, raises questions concerning the level of proficiency in technique that can be actualised, as well as its relevance and position in bushcraft and survival and its educational aspects.

The 'what if' emergency or survival-scenario can span a number of potential situations: the imagined societal collapse of apocalyptical scenarios, military personnel who could become cut off from usual equipment supplies whilst on deployment, wilderness recreationalists that become lost or injured and separated from their equipment, explorers and travellers who might also find themselves unexpectedly cut off from their supplies and those whose vocations take them to more isolated and unstable (politically, socially or environmentally) areas of the globe. Whatever the imagined or prepared for scenario, the underlying theme is fear of becoming separated from the usual supply line for an extended enough period of time that food acquisition becomes a relevant skill, be that commercial or military. All of these scenarios are improbable for the Western civilian, thus situating trapping as a highly imaginative skill that can only be employed in a long-term emergency situation or a long-term remote, wilderness living context. Thus, its usefulness is currently limited.

Nevertheless, since the end of the Second World War, the armed forces of the major world powers have developed special units concerned with warfare in unusual conditions. Such units developed out of a requirement for the infiltration of enemy territory and survival there without recourse to the conventional supply lines upon which a regular army depends. The experience of jungle warfare, especially against the Japanese, demanded even greater levels of self-reliance and personal initiative without access to normal supplies. The Special Air Service (SAS) developed this initiative to a high degree, with one aspect of its training devoted to the improvisation of traps in order to procure food beyond normal rations or supplies; this is especially seen, for example, in Wiseman's best-selling *SAS Survival Handbook*, where a focus upon traps and jungle lore reflected his military experience. Bateman (1979) suggests that there also exists a place for

improvised trapping skills in other kinds of emergencies such as remote aircraft wrecks and forced landings:

> If rescue is a long time coming, the ability to trap animals for food could be a life-saving resource… there are probably many more situations like these where survival may be assisted by an *elementary* knowledge of the principles of trapping. (1979, p. 138, emphasis added)

Indeed, military training for an emergency survival scenario is crucial in preparing military personnel for a range of possible events that might benefit from knowledge of living off the land. This, as we have seen, has its roots in unconventional, irregular warfare, conducted in unfamiliar terrain. However, in contemporary survival manuals (which may or may not be written by military or ex-military personnel) the emphasis is placed on the ability to produce specific trap types under the conditions of an emergency scenario, rather than the wider skill needed in order to successfully employ *any* trap type to entice an animal into it. This is due to the former being far easier to train people in than the latter, since it combines all the core features of trapping knowledge. And, of course, some understanding is better than none, especially given that traps may be employed as a human ambuscade, rather than to catch an animal for food. Nevertheless, the survival equipment issued to British Armed Forces SFSG (Special Forces Support Group), Paratrooper and Commando units, for example, is known as the NATO (North Atlantic Treaty Organization) 'survival tin'. The survival tin is a compacted emergency equipment container that is easily transported on the body and contains only essential and select pieces of equipment that are deemed vital for emergency survival. Some snare wire has historically always been part of the essential contents of such a survival tin, the expectation being that, with some elementary prior training survival training Forces, personnel may be able to maximise the benefits of the minimal technology provided. With enough wire for one, perhaps two, snares the soldier may be able to feed himself from the wild until rescue arrives.

There exists a distinction, even tension, in the literature, which is reflected in practice, between survival trapping knowledge and trapping knowledge for experienced trappers and gamekeepers or countrymen. For example, Moorman

(c.1906) says that the sportsman and gamekeeper alike often undervalue the art of the trapper, passing it off as a minor kind of accomplishment:

> It is, however, nothing of the sort, and, although the mere setting of a trap or laying of a snare may appear a very simple affair of itself, skill in the handling (which includes concealment), art in the time and place of employment, and choice of the form of trap, snare, or wile, play such an important part in influencing the success or failure that to become a successful and certain trapper involves an amount of experience, insight, and skill far greater than is necessary in the rearing of game or shooting of it when reared. (c.1906, p. 1–2)

Furthermore, he continues:

> The mere putting down of a trap, a snare, a fall or a hingle without full knowledge of what is to be caught, and what has to be done to catch it will not lead, probably, to anything at all. The skilled trapper knows exactly what he intends to capture, how he will take it, and, approximately, when he will take it. To accomplish this he must possess not only an intimate acquaintance with the form and habits of the creature he seeks to capture, but also of the woodcraft incidental to its surroundings. These items of knowledge are not gained from haphazard acquaintance, hearsay, or teaching; they can only be acquired at the expenditure of time and trouble intelligently applied, keen insight into animal ways, and the exercise of much patience and skill. It is possible for the tyro to gain a large amount of information from the written instructions and experiences of others, but to prove successful he must be assiduous in himself, observing all the incidences of the bird and animal life amongst which he proposes to work; he must be early and late afield, a careful observer of the weather, its changes and portends, and be satisfied to put up with its inclemencies, and not infrequently take advantage of them. It is, moreover, of the first importance to persevere, trying again and again, maybe, before ultimate success is assured. He may put two and two together with extraordinary apparent exactitude, and find the sum total of his endeavors entirely out of his reckoning; but, sooner or later, a correct solution of every difficulty comes, and that intuitive knowledge of what to do and how to do it is acquired, and the tyro merges into the expert. (Moorman c.1906, pp.2–3)

Moorman clearly distinguishes the reality of the deep knowledge required by a ‘trapper’ from the more speculative approach and rudimentary knowledge put into service by those who espouse the survival trap as exemplified by the military survival tin approach to trapping.

Having the skill to be able to trap animals for food and other resources is powerfully meaningful for bushcraft practitioners. It is strongly symbolic of being someone who is, can choose to be or can be, if necessary, highly autonomous. It is strongly counter-cultural. The *notion* of being someone capable of provisioning for oneself, outside of the capitalist supply lines and directly from the natural world, for him or herself, has significant connotations for long-term living in

wilderness and is ultimately characteristic of self-reliance. This idea is not politically neutral. It carries with it the idea of rejecting or subverting, in some measure, reliance upon societal systems of food production and distribution. This may represent, for bushcraft practitioners a freedom from reliance upon capitalist systems. This is expressed by the following comments provided by survey respondents: 'Learning trapping skills, just like learning to hunt and other bushcraft skills give a feeling of independence and self-reliance' (T#5 2014); 'I became interested in trapping as part of wanting to learn to be more independent of society' (T#10 2014) and 'As with other bushcraft skills; [it is the] self-reliance and the confidence that it [trapping] gives' (T#8 2014). The personal development of confidence in one's self was repeatedly expressed in interviews, survey data and in the woodcraft/bushcraft popular literature as a core ideal, principle and consequence of bushcraft practice. Richard Graves, author of *The Ten Bushcraft Books* (c.1950, p.2 emphasis added), notes this development of self-confidence through bushcraft practice when he says in the introduction of his book:

> The practice of bushcraft shows many unexpected results. The five senses are sharpened and consequently the joy of being alive is greater. The individual's ability to adapt and improvise is developed to a remarkable degree. This in turn leads to increased *self-confidence*. *Self-confidence* and the ability to adapt to a changing environment and to overcome the difficulties is followed by a rapid improvement in the individual's daily work.

Graves then relates this directly to his observation that 'Bushcraft, by developing adaptability, provides a broadening influence, a necessary counter to offset the narrowing influence of modern specialisation' (c.1950, p. 7 emphasis added). Like other bushcraft skills, then, the ability to trap animals for food appeared important to practitioners in strengthening individuals' personal confidence in their skills that offer the possibility of some measure of independence from mainstream society and its production systems. This is expressed by another survey respondent:

> The [bushcraft] experience I gained at such a young age means a great deal for me. In terms of self-confidence, it gave me a lot…. Being able to find and catch food – feed myself from the land – made me feel that I was part of the bigger picture, not just visiting for a short while. I had no fear of wild places at all – immense self confidence in my own abilities and a feeling of self-reliance that has stayed with me throughout [my life]. (T#4 2014)

The broader significance of feeding oneself from the land, as part of bushcraft practice, was also well recorded in the research. For example, in the general bushcraft survey that I conducted in 2014, I asked practitioners: 'Are there ways in which bushcraft has influenced or entered your daily domestic life?' Responses (sample below) revealed the direct, unmediated activity of wild food acquisition, preparation and consumption to be a key way in which bushcraft practice entered the daily lives of its practitioners. For example:

1. Foraged ingredients regularly find their way into the kitchen and our meals.
2. Yes, in the way we prepare food and what we eat.
3. …making foods for winter.
4. …the foraging of wild food whether they be vegetation or animals and fish. the studying of fungi, but also woodcraft skills and cooking.
5. I am more aware of where my food comes from.
6. Cooking foraged foods, consuming less (including resources like electricity and gas), better understanding of resource types in an area (i.e. knowing which trees are where and where fruit trees etc. are), make not buy (using green woodworking skills to make my own furniture instead of buy it, eating differently (using a cold smoker instead of an oven).
7. …inspired to make meals from scratch, supplement with foraged items, brew, make jams etc.
8. …vastly in food, fungi use and drying, wild drinks making, adding wild food to dishes, preparation and cooking of fish my boyfriend catches.
9. …eating wild foods and game, wilderness cooking.
10. The main notable ways are that I tend away from commercial solutions to most things now, so growing my own food, hunting and trapping food on land where I have permission.

In their study of casual (rather than commercial) wild plant food gatherers in New England, Robbins, Emery and Rice (2008, p.273) note the way in which foraging activity takes place outside formal economic boundaries. They further suggest that non-commercial/personal foragers 'are surreptitiously and personally involved in something very different from capitalist nature' (2008, p.273).

Whereas the ability to make fire, shelter and find water is a necessary requirement for short-term survival, the ability to catch animals for food transports one into the realm of long-term wilderness living. In reaching this point one can extend the human relationship to the biological world more profoundly than through the making of a kuksa or being able to create a fire. The ability to trap animals for food speaks both to a deeply human reality and also exists as a highly urban/modern fantasy.

Moorman (c.1906) points to the inner personal qualities that a good trapper must develop: patience, endurance, persistence, observation and judgement. Trapping skill assumes certain skills – that you can use a knife and axe to shape your environment – and goes further than reading the landscape for suitable plant fibres for fire production. Trapping requires that you extend yourself beyond or outside your immediate and direct experience with nature into the world of non-human agents who are interacting with the same set of ecologies in which you interact. Beyond this immediate ecological awareness and knowledge trappers must also extend themselves imaginatively, into other times. Trappers must consider the past activities of the animal, pieced together from knowledge of species and landscape together with the capacity to work out what has most likely happened. With this knowledge, trappers can then project forwards to what the animal is most likely to do, in order to work out the best type and placement for a trap. At the same time, other places must be imagined where the prey is most likely to be right now and in the future (Marvin 2015). This 'reading backwards and forwards' forms an internal narrative for the hunter (Marvin 2015). It requires empathy and projection. In this way the hunter or trapper must, as intimately as possible, identify with their quarry. This idea was commonly expressed in interviews with professional practitioners and appears in bushcraft and tracking literature (e.g Liebenberg 2013) as 'getting into the mind of the animal' or 'seeing through the eyes of the prey'. Kay Milton (Milton 2002) identifies the concept of personhood as central to this kind of identification with non-human others, leading to empathy. Educationally, this is the quality of gnosis, knowledge available only when in a relationship with another subject.

It is from this intersubjectivity, empathy and identification that an ethical code arises with respect to the practices of trappers. Trapping and tracking is, as several interviewees mentioned, 'otherworldly' in the sense that you enter into the mind of the animal and begin to perceive your environment the way that they might. This echoes and invokes Neisser's ideas of an extended ecological self that is the ecological self 'as directly perceived with respect to the immediate physical environment', and the extended self which is based on memory and anticipation (1988, p.35).

However, the situation of a practice that cannot be truly practiced (due to legal restrictions) ultimately raises questions about the utility of a skill that is

transmitted while at the same time being removed from the context of its practice. This situation exposes an inconsistency within bushcraft practice, raising questions about how far the practice demonstrated is pure fantasy, and whether knowledge that isn't 'useable' serves another purpose, such as being motivational or providing mastery over a certain sub-skill such as knife use or an aesthetic skill (craft/art) that has an emotional value. The next section explores these questions through fieldwork observations, interviews and responses to a survey questionnaire.

7.5 Trapping in bushcraft education

> One needs to have construction skills that would include knife skills, and possibly cordage making, and knowledge of different woods and their characteristics in order to build the trap. When setting a trap, you have to have a knowledge of how animals move through the environment, the ability to identify tracks that particular animals are habitually using, the ability to mask scent and camouflage the trap so that it does not look out of place, setting the trap so that it is sensitive enough to be triggered by the prey species, what bait to use (as appropriate). (Wescott 2014)

The above remarks from notable wilderness living skills educator, David Wescott, succinctly describe the set of different skills involved in being able to produce and set a trap. As with many skill constellations, trapping tends to be taught within bushcraft practice in a modular fashion, that is, as a trapping 'session' situated within the broader syllabus of a bushcraft course. Within the trapping session, the various aspects of trapping skill are broken down into subtasks. Typically, the session begins with the learner being introduced to the ethical standpoint of the company or the individual and the ethical considerations of trapping in general. The instructor may provide verbal explanation such as:

> If you ever put this skill into practice with the intention to take an animal's life then you have a responsibility to the animal whose life you are taking, to do it with compassionate efficiency. To minimise the suffering you inflict on the animal, your trap must be good – this is not something to "play" at. (Ben McNutt, 2011)

The legal status of trapping is also clarified for the novice, with the use of deadfalls being illegal under any circumstances in the UK and with snaring being permissible only when a legal 6-strand snare is employed with the landowner's

permission and only in relation to one particular quarry species – rabbits. This is broadly similar in the USA. Due to both the legalities and the ethical stance of most educators, trapping in its entirety with the end result of an animal being caught in the trap, is rarely taught in real time. 'These traps are for historical interest or emergency use only, therefore we will not be trapping any animals on this course' is the typical caveat that preludes a trapping session or is written in a pre-course description. This results in trap-making and setting up, rather than trapping, being taught. As Tim Smith of Jack Mountain Bushcraft told me in interview 'We are becoming trap *makers*, not trappers' (interview, 2011). However, in interview, professional UK bushcraft educator, Dave Watson, provided a fuller explanation of the ethical and legal considerations in the UK context:

> I only teach trapping when it is very clear why I am doing it. For example, I have people who come to me who are going to go off and travel into remote places, where the training I have provided needs to get people to wake up to the reality of remote wilderness – if you are in a wild place you might need to know how to trap and butcher an animal. As such, if this is the context, then I bring in live chickens and we dispatch them; it is unpleasant but people need to get real – this is what happens. If you want to eat then something is going to die, but that is a very specific context; it is not at all standard, and so, more so than any other subject in bushcraft, I have to be very clear why I am teaching it.
>
> …A more common example is that people/organizations ask me to provide rabbits 'in the fur' and the participants learn how to skin and joint and prepare them for food. There is an element of 'let's teach people because they are completely taken away from the reality that meat comes from an animal that was living', not the packaged scenario they are used to that is so removed from reality. And we [bushcraft instructors] are potential messengers of the subject, and the subject is about what is real, and the reality in bushcraft is that you have to *do* something – work – in order to survive. It's a principle – you can perfectly argue that trapping 'for real' should be there on the syllabus; however, of course it would cause uproar; it's illegal and we would be bracketed off as unpleasant, reckless people that are out to destroy the woodlands or countryside, which, of course, that is the last thing we are about. I teach trap *making* more commonly – figure-4 and spring snare – but trapping itself is not really my working skill. I can help people to understand principles of trapping such as what to focus on, why is an animal going to eat this and not that, how much strength does the animal have, the delicate nature of the trigger mechanisms – I can teach people to think this way, but in the end it is not something that I have put into practice since I was in my 20s. What I enjoy is to focus on *tracking* because, while there are a lot of potential implications for trapping, it doesn't need to be about going off hunting to kill something, but it *is* a real doorway into understanding the wildlife and its habitat. You tune in at a much deeper level and, of course, you can be a photographer and value that, you can be a bird watcher and value that – it's got

> connotations of trapping, but that is down the list, it is not the main reason we are doing this. (2014)

All professional educators interviewed in the UK noted that using primitive traps such as the deadfall was not part of their regular experience or skill-base. Perhaps these instructors had employed this technique 'for real' on rare occasions, but it did not form part of their regular interactions with nature. Yet, one survey respondent pointed out:

> Only by trapping for real will someone know how to teach it effectively, anyone can set a snare, it's making sure it works is the key, and only practical experience can provide this, hence 'skill'. (T#6 2014)

Much more common to bushcraft instruction is that once legal and ethical considerations have been explained, the instructor makes reference to his or her preference for wildlife observation, with perhaps the camera replacing the hunting weapon or trap, since there is no 'need' to take the life of an animal while there is access to industrial food supplies.

During fieldwork with an established bushcraft company in the Lake District, professional instructor Steven Hanton led the course participants through the forest to a pre-set mock-up of a 'trap-line' where a number of variations of possible deadfalls, spring traps and snares were set up. Hanton proceeded to talk the students through the various set-ups and mechanical principles of the traps, releasing them with dramatic falling, crushing, flinging and impounding actions as he went along. He then re-set the traps so that students gained more understanding of the forces harnessed in both natural materials and the mechanisms in which they are employed. Meanwhile Hanton also commented upon the usefulness and suitability of various trap types in various emergency scenarios or wilderness situations and for various quarry – what trap might be best applied under which circumstances and for what type of animal (e.g. birds, small game and large game). Having demonstrated the universal principles of how various triggers and snaring or killing devices are made and operated, the students were then led back to base-camp where they gathered to watch Hanton demonstrate the production of several of the trap types he had shown. Using a green ash (*Fraxinus excelsior*) round, that he had selected for the purpose, and a knife, he showed the students how to use their knives to split the round into three flat boards, meanwhile

explaining that he selected ash because it has a nice straight grain and he looked for a piece that had no knots in the grain. Having split out three flat boards, Hanton began to carve the components to make a 'Scandinavian figure 4 deadfall'.[31] In doing this he demonstrated body positions and safe and effective carving techniques, while suggesting that bushcraft should be aesthetic as well as functional – that form follows function – that they (learners) should take pride in producing a 'nice' trap. Learners observed the steps of carving, constructing and setting up a figure-4 deadfall (amongst several others) and/or a variation such as either the Scandinavian deadfall (using flat boards rather than round twigs) or the Paiute deadfall (requiring a small amount of string). The instructor then re-iterated the finer points of construction and setting, for example considerations for 'de-scenting' a trap, how to carve the notches that form the unstable catch and how to use a 'stop' when setting the trap. This latter is something that is placed between the 'fall' and the anvil, be it rock or log, so that, should the trap fall whilst setting (which happens commonly to novices), the 'stop' will break the 'fall' hopefully so as not to damage the trapper's hand. Other points covered by the instructor included how to use an 'anvil',[32] and how to build a 'pen' around the trap to prevent the animal from throwing itself to one side of the trap so that only a part of its body is crushed or trapped. These aspects are emphasised for effectiveness of kill, but more so from the perspective of consideration and not wanting an animal to suffer.

7.6 Trapping ethics in bushcraft education

There is a strong ethic amongst bushcraft practitioners that focuses on skills required to minimise the distress trapping might cause to animals on the one hand, and on the skills for the full utilisation of the animal, once dispatched, on the other. For practitioners, the strong emphasis on not wasting any aspect of the animal carcass is reflected in the skills developed for maximising the use of the whole animal, such as meat for food (or further bait), bones for tools, sinews for bindings, pelts for buckskin or fur and antlers. This thinking is a central part of its

[31] The so-called 'Scandinavian figure four deadfall' is a variation of the standard figure four deadfall trap that replaces the component sticks that are usually used in the round, with carved flat boards.

[32] This is a hard platform such as a flat rock placed on the ground so that the animal is not simply squashed into soft earth, which might result in the animal not being killed outright, but rather maimed or able to escape.

principles and ethic. This is exemplified by the popular courses that teach people how to utilise all the parts of the animal for 'primitive' tools, for example: 'Deer in a Day' (Wilderness Survival Skills 2016) and similarly, 'The Whole of the Deer' (Wild Bushcraft Company 2016). The other foremost ethical concern is that a good trapper does not inflict suffering upon its prey; this is, as one survey respondent put it, 'a sacred responsibility, not to be taken lightly' (T#10 2014). Survey respondents clearly expressed this concern:

> There is one case in which I would consider a trap to have failed and that is if it caused the animal to suffer. Fortunately, my traps have always either killed the animal quickly and humanely or held them without hurting them. (T#10 2014)

> I have [used deadfall traps], for small game, rabbits and squirrel. First time, I watched it get triggered from a distance and saw that the rabbit die quickly which pleased me as, as I said, I wouldn't want something to suffer. (T#9 2014)

This ethical stance is mitigated in a survival situation, which is perhaps best characterised by an outlook of 'survival at any cost'. Other examples of ethical concern among practitioners include the need to understand when to set a trap and when not to. In particular, this is with regard to: knowing the seasons in which animals will have young to provide for; never leaving a trap unattended and regularly checking traps so that if an animal is distressed, it is not left (as well as pragmatic reasons such as other animals taking the prey). Ethical rules, such as these, are espoused in bushcraft practice since the trapper has the utmost respect and even love for the wildlife he or she hunts, arising from the gnosis necessary for successful trapping:

> I have yet to meet a skillful trapper who traps to feed his family who does not have a great love and respect for his prey. This comes from many hours watching and following prey. It's one thing to sit at home and watch wildlife documentaries, another altogether to sit and shiver in the wind and the rain as you share the sounds and smells of wild living with the creature you are watching…. Hunting and being hunted is part of nature…. they are an…everyday fact for the survivor and native alike.' (Mears 1990, p.117)

Professional UK practitioner and level III Tracker in Lois Liebenberg's 'CyberTracker' accreditation system (CyberTracker 2013), John Rhyder, has removed trapping from his bushcraft curriculum entirely. In an interview, he explained why:

> I don't think it is relevant to the UK, I don't think most of these trap types are humane, unless you know a lot about trapping and you get them very right, which requires a deep understanding of what is going on – trapping is a profession or a craft. I also don't think the traps are discriminate enough to be sure that you won't catch something that you don't want to catch, like a domestic animal or a protected species because we are not in the wilds of somewhere like Alaska for example. And I think with the short duration that you have people on a course, you might spend perhaps only one or two hours teaching trapping – how sure can you then be that people won't start putting traps in inappropriate places? Also, I don't have the personal experience to be sure that I am teaching people appropriately, barring perhaps rabbit snares. Certainly deadfall traps – well they are illegal anyway, so it feels pointless to teach them when we are not supposed to be using them. In bushcraft what we are really teaching are trigger mechanisms, but I don't know how effective they are because I have never used a deadfall 'for real' and so I don't see the point of teaching it, especially in West Sussex! I wonder about whether it fuels that side of 'fantasy bushcraft' – that sort of 'survive anywhere on the planet mentality' – I can understand it if perhaps you are on expedition and trying to live that way. For example, when I was in Sweden with Ray (Mears) we tried to snare ptarmigan, but we didn't get any because basically the snow fell and covered the snares – which have to be sitting a certain height above the snow – but that makes sense to me because you are going for something very, very specific. You know that the prey species is there, you know its specific habits and you are nowhere near any domestic animals, livestock or presumably any rare species, so you are not going to trap a pine marten for example, by mistake. Whereas for me, given where we live, trapping seems to be fueling that Jack London style fantasy, which would never really be applied. (2014)

Here Rhyder considers the legal and ethical aspects to natural trapping and, once again, highlights and illustrates the distinction between the very real difficulty, local nature and subtlety of skill in trapping in a fluid, ever-changing environment. This he then contrasts with the ease with which the idea of trapping can slip into 'fantasy' which he then relates directly to its universalisation, that is the unreality of a 'survive anywhere on the planet mentality'. This raises important questions about authenticity in bushcraft practice and education, which will be considered in the larger context of other bushcraft practice in the final chapter of the thesis.

7.7 Trapping and tracking

In the bushcraft educational scene and in survival training, trapping is often portrayed as universal and simple, with its knowledge based on making or improvising a deadly trap *mechanism*. It can result in a disconnection of the trap from the understanding of the quarry. Dave Scott of Alderleaf Wilderness

College, USA, says on his webpage: ‘I often say that wilderness survival, tracking, and naturalist knowledge cannot be separated from one another. Survival trapping is the perfect expression of this point. A great trap in a bad location is a bad trap’ (2015). He further suggests that:

> Figuring out the best place to set a trap can be extremely challenging without knowledge of animal behavior and tracking. The only way to truly learn these things is to spend time in the outdoors looking for tracks and signs that can give you a window into animal movement through a landscape. I urge you not to discount the importance of these skills.
> As a trapper, if I had to choose between naturalist knowledge and knowledge of trap dynamics I would choose naturalist knowledge all day. A creative mind can come up with a device that can trap or kill an animal with a minimal amount of trapping theory, but if you can't find the animals in the first place you will never be successful at trapping. (Scott 2015)

The skills required to know where to situate a trap are best described in bushcraft practice as *tracking* skills, which encompass a range of fields including wildlife observation, track and sign identification, field-craft, de-scenting, camouflage and trailing skills, for example (Elbroch, Mwampamba, Santos, Zylberberg, Liebenberg, Minye, Mosser, and Reddy, 2011). Continuous observation and deduction is required, from the macro to the micro environment. Tracking is about first being able to see and closely observe in order to detect minute disturbances in the landscape. Moreover, in order to detect disturbance, I suggest one first needs a detailed library of how things should otherwise be, how they look when undisturbed. And so, a good tracker first *notices* his senses are ‘tuned in’ and he is ‘aware’. It is, as Marvin suggests, ‘very very detailed work’. This epitomises ecological psychologist James Gibson’s notion of an ‘education of attention’. Marvin (2015) further points out that trackers do not simply observe, for example, fox tracks, but that tracking is autobiographical – they read the story of the author. This echo’s Seton (1958, p. 24) when he says:

> It is hard to overvalue the power of a skilful tracker. To him the trail of each animal is not a mere series of similar footprints; it is an accurate account of the creature’s ways, habits, changing whims, and emotions…. These are indeed autobiographical chapters.

Trackers, then, begin to discern individuals and personalities; they use terms such as reading, interpretation and interrogation, all of which highlight the

complexity and subtlety of tracking. This subtlety and complexity requires the practitioner to become extremely fluid and flexible in their constantly changing environment as they negotiate changing terrain and weather in order to interpret past signs and predict future behaviours.

This supports Marvin's comments that 'tracking requires local knowledge. It is very difficult for trackers to track in an environment that they don't know intimately' (Marvin 2015). He continues to explain that because a tracker's knowledge is deeply embedded in the particularities of a local area, when trackers are taken from their local environment and inserted into unfamiliar terrain, they can transfer the core principles of this knowledge to the new locality, but not the details. This means that trackers are still able to recognise types of disturbance on the ground and the generic principles of certain marks, tracks and signs – such as reading ground sign (speed, gait, direction) rubs, mammal beds, scratching posts, types of feeding sign and so on – in an unfamiliar ecology and even of an unfamiliar mammal. However, trackers tell Marvin that they find it very difficult to tell anything about what is going on there. This is 'because they are not experienced with the micro-climate or soil type in that area' (Marvin 2015). And so, Marvin says, it becomes an impoverished way of tracking; they can follow the tracks but they cannot follow a 'living trail' as one tracker termed it. That is, they don't know how the soil will be affected by the climate, making it difficult, for example, to age a track or ascertain the weight of an animal or even the speed of travel. Animal tracks change through time, through processes of erosions such as drying out, wear, being overwritten and fading – they are always aging and breaking down – and they are affected by the weather, so that the weather world is of utmost importance to the tracker. As Marvin (2015) suggests 'Tracking, therefore, involves a human-micro engagement with and understanding of materials and of the terrain'. Thus, both their imagination and their learned knowledge become less available to them as they travel from one location to another, as the ecology becomes less familiar.

In sum, Marvin suggests that, once a tracker starts on a trail, it becomes biographical, that trackers are often following individuals, not just a generalised species type but rather, as Marvin describes it, 'a particular imagined self'. And so, he tells us, tracking is an integration of previous knowledge with present experience to formulate an imaginative engagement with a predicted future. This

is achieved through a process that deduces what an animal is likely to do in response to the activities and enticements of a trap that has been laid in future anticipation by the trapper. As such, Liebenberg proposes that 'Tracking involves intense concentration resulting in a subjective experience of the tracker projecting oneself into the animal' (2013, p. 37). Furthermore, 'In the process of projecting himself into the position of the animal, he actually feels like the animal. The tracker therefore develops a sympathetic relationship with the animal, which he then kills' (Liebenberg 1990, p.ix). Liebenberg (2013, p.162) notes that:

> The art of tracking and the anthropomorphic way of thinking arises from the trackers need to identify him/herself with the animal in order to anticipate and predict its movements. The tracker must visualize what it would be like to be that animal in that particular environmental context. In doing this, the tracker must ask 'what would I have done if I was that animal?' To be able to do this the tracker must know that animal very well. But in the process the tracker superimposes his/her own way of thinking onto that of the animal, thereby creating a model of animal behavior in which the animal is understood to have certain human characteristics.

Thus, while the skill of trap-making can be codified in manuals and made universal, the knowledge required to make a trap effective in actually trapping and killing an animal is considerably more nuanced and expansive, requiring extensive prior experience in animal behaviour and 'sign'[33] and local ecology, which takes many years to accrue.

In *We Belong To It* (Iromoto 2015), Ray Mears expresses the way in which such intimate micro and ecological knowledge, such as that required and experienced in tracking, can transform a person's view of nature:

> Bushcraft transforms your view of the forest – that is for sure. In time, you become much more perceptive, you look for tiny things in nature, for small things that you notice that tell a big story. You gain this experience. And then, when you are travelling you get insights, you feel perceptive of something. And it could be something as simple as – I feel that there could be something here to see, this habitat will hold a moose for example; you might come across the remains of wolf droppings that are a year old, but because they are full of the hair of a certain animal you can determine what species it was. With experience, your subconscious can pick up all of those details, and interpret them and use them to read the landscape. The secret is to learn to turn off your conscious mind and listen to those messages and to act upon them. (2015)

[33] The term 'sign' is used by trackers to refer to the material records of the presence of certain animals, e.g. scat and tracks (Seton 1958, p. 131).

7.8 Imagination, identification and empathy in trapping

In trapping, there is a pragmatic need to have a detailed understanding of the quarry's life and habitat, in order to build an effective trap and to place it appropriately. This detailed understanding goes beyond the knowledge of constructing a figure-4 trap (episteme) into an empathetic relationship (gnosis) between the trapper and their quarry, leading to an ethic of practical wisdom (phronesis). Thus, intimate knowledge of the quarry's habits leads to an imaginative connection between quarry and trapper which, in turn, engenders deep respect. Trapper turned conservationist, Archibald Belaney (otherwise known as Grey Owl, 1888-1938), provides a striking example of such an empathic and respectful relationship. Belaney has been embraced by bushcraft practitioners as part of its 'tradition' – that is, one of its core influences. Belaney is particularly admired by Mears (see Iromoto 2016) as an English man who travelled to Canada to learn the woodcraft of the First nations and who followed the trapping ways of the Ojibwa. However, Belaney's trapping eventually led to a strong empathy and admiration for the beavers he trapped which he came to term 'the little people'. Becoming one of the first public conservationist campaigners, Belaney, influenced by his Mohawk partner Anahareo, began to protect and conserve, rather than trap and kill, the Canadian beaver. In doing so Grey Owl became one of the earliest pioneers of the twentieth century conservation movement. Thus, effectively, the deep understanding of the ecology and the quarry that is required to be an effective trapper produces a compassionate engagement with it as another being sharing the same environment as the trapper. This reflects a key component of the traditional worldview of hunter-gatherers, namely the embodiment, animation and personification of nature – what is still called an animistic worldview (Bird-David 1999).

However, in trapping, it is not only empathy, developed through intimate knowledge of the quarry that is required, but also imagination. It is this cultivation of empathic imagination that provides the second, fundamentally ethical, explanation for the decline in trapping as a part of bushcraft teaching. At the time of writing, Ben McNutt is the most qualified tracker in the UK, within Liebenberg's Cyber Tracker system. In interview he described the importance of the relationality underpinning tracking skill when he stated:

> Imagination and empathy is key! As you set a trap you enter the mind of the animal imaginatively – you imagine what it will be experiencing and what it will respond to and how. The better you can do this, the better trapper you become. The better you become, the more effective and humane you become in your trapping (2013).

In 2014, I conducted a short trapping survey (see Appendix 4.), in which I enquired about the attributes required for developing trapping skill. Question eight asked: 'What would you say are core attributes or qualities of a trapper that an individual should aspire to, in order to become skilled in catching their prey?". Respondents strongly highlighted and focused upon the ethical aspects as much as the practical skill. This reiterated the viewpoints expressed above. The following responses were given in the trapping survey (TS):

1. …a good knowledge of the habits and wider ecology of the prey species (what it eats, where it shelters, when and where it is most active). (TS#3)
2. …requires one to be in tune with what is going on around them in the bush. (TS#10)
3. …a great trapper must love its prey, and respect it. You must do it [trap] humanely and be thankful for the meat and fur you harvest. (TS#9)
4. …respect for your quarry, knowledge of your quarry and their habits. (TS#7)
5. …respect for the animal and environment the trapper is in comes first. (TS#5)
6. …a good knowledge of animal behaviour, sign, feeding habits, their superior senses. (TS#4)
7. …most importantly – respect and empathy for the intended quarry. (TS#3)
8. …a good knowledge of the habits and wider ecology of the prey species. (TS#3)
9. …every part of the animal should be used so its life has not been wasted. (TS#2)
10. …empathy, no unnecessary suffering should be brought upon the prey. (TS#2)

Thus, learning to trap or to hunt requires detailed and nuanced knowledge of the land and the habits of wild animals, the process of thinking like the animal, the projection of oneself into the mind of the animal to relive its trail in order to interpret and deduce what it did and where it went, what it is doing now and to predict, as accurately as the tracker is able, what it might do in the future. The idea of trapping, however, is not to catch up with the animal to kill it as in active hunting but rather to disrupt that animal's behaviour to entice it, to know it well enough to know where and how and what will make the animal come this way and not go that way. That is, not to follow it along but to draw it in and to trick it. All of this will take place in some future imagined scenario in which the trapper will

not be present, except in the sense that Otis Mason (1900) describes – his mind will exist in the trap he has created.

Trapping is direct, intimate and personal in the sense that bushcraft trappers recognise that their responsibility is entirely unmediated by food production systems; hence, the trapper makes all the decisions about which trap to make, what materials to make it from, how fine to set it, where to set it and what animal to trap. These are matters that require study, observation, experience, knowledge and skill in order to make a judgment based on the terrain, the weather, the animal species and the materials available. While trapping is a fundamental part of many 'indigenous' knowledges, it now has only a limited role in bushcraft, with the most senior practitioners teaching it more as ethical practice as a technical skill. The far greater emphasis is placed upon tracking skills for wildlife observation and appreciation, and for drawing the participant into a much more nuanced awareness of the landscape and its non-human inhabitants. As with friction fire, through individual application, study and experience, practitioners not only develop technique and knowledge, but also Self.

Looking comparatively at the four broad historical contexts that intertwine throughout this thesis – recreational bushcraft practice, the lived subsistence techniques of indigenous or pioneering peoples, military survival applications and archaeological reconstruction, the emphasis given to the role of trapping in each changes. Both indigenous knowledge and bushcraft require a strong awareness of the activity and its context, indicating the similarity between their key principles. However, it is in the actual practice, in the complex, lived environment of the practitioner, that the difference takes place since, for the practitioner, trapping is rarely of utility, whereas for the indigenous knowledge practitioner it is always of utility. In military applications, there is low awareness combined with low utility, while in archaeological reconstruction the emphasis is on high awareness and low utility.

Otis Mason (1900) referred to trapping as necessitating an intimate knowledge of animal habitats and local environment in order to successfully apply the tactics of ambuscade. And, in doing so, the mind of both the hunter and the prey conjoin in the trap. Here Mason is expressing an idea encountered among hunters of many types and backgrounds. For example, Rane Willerslev provides a striking 'perspectivist' account of personal experience drawn from his

ethnographic data on the Chukchi and Yukaghir (Willerslev 2008; Willerslev 2004), he says:

> Perhaps the real evolutionary outcome of humans taking up hunting is not a violent and brutal killer instinct but rather the ability to empathize with other beings, an attempt to put oneself in the animal's place and see the world from its perspective. This empathy is reflected in the cosmological principle found among indigenous hunting peoples from the Amazon to North America and Siberia. The Brazilian anthropologist Eduardo Viveiros de Castro calls it "perspectivism". (Willerslev 2012, p. 110)

Such accounts provide a stark contrast to the abstract notions associated with the survival-tin, snare-wire scenario in which a downed pilot is supposed to attempt to trap a previously unknown animal species in an unknowable environment, using a set of static instructions in how to make a snare or deadfall, with perhaps the briefest of prior 'training' and adhering to a quite different ethical standpoint.

Of the three case studies provided here, it is this one, the art of trapping and thus also tracking – of taking the life of an animal for the consumptive, nutritional and resource benefits - that connects us most deeply with the natural world, not only in terms of knowledge, understanding, consumption and resource but also in terms of empathy and imagination that necessarily must develop in order to be successful and skilled at trapping. It is this development of empathy, which, in turn, leads hunters into the area of morality, ethics and compassion. Thus, Willerslev (2012), like Liebenberg, argues against the 'Hunting Hypothesis' that originated in the early 1900s and which tends to stress human aggression as an evolutionary adaptation (Liebenberg 1990, p. 3).

Ingold explains this by saying that 'through the practical activities of hunting and gathering, the environment – including the landscape with its fauna and flora – enters directly into the constitution of the persons, not only as a source of nourishment but also as a source of knowledge.' (Ingold, 2000:57). Furthermore, hunter-gatherers, according to Ingold, do not so much exploit their environment as maintain a dialogue with it, and it is through this immersed engagement with it, rather than a detached observational scientific view, that hunter-gatherers naturally take care of it, as one takes care of one's kin. It is, he says, a relationship of trust, not dominance and indeed, Ingold argues that as with

caring for people, to care for the environment is the natural result of a 'deep, personal and affectionate involvement, an involvement not just of mind or body but of one's entire, undivided being' (2000:68-69). However, when an indigenous hunter describes their relationship with non-human others in terms reserved, in Western thought for human relationships – e.g. love, sharing, and affection - it is said that they are engaging with metaphor rather than actual experience. Ingold responds to this by critiquing the prioritisation of 'Western metaphysics of the alienation of humanity from nature', over the indigenous view; that is, the 'use [of] *our* disengagement as the standard against which to judge *their* engagement' (2000: 76 original emphasis). Ingold highlights the profound arrogance of this position by pointing out that:

> Faced with an ecological crisis whose roots lie in this disengagement, in the separation of human agency with social responsibility from the sphere of our direct involvement with the non-human environment, it surely behoves us to reverse this order of priority'. (2000:76)

Chapter 8 : Conclusion

8.1 Introduction 8.2 Bushcraft's colonial inheritance 8.3 Bushcraft, tourism, survivalism and outdoor education 8.4 Bushcraft affordances 8.5 Skilled practice 8.6 Alienation and reconnection 8.7 Education and transformation 8.8 Decolonisation and virtue ethics 8.9 Bushcraft as a worldview 8.10 Bushcraft as well-being.

8.1 Introduction

> 'Bushcraft' describes the activity of how to make use of natural materials found locally in any area. It includes many of the skills used by primitive man, and to these are added "white man" skills necessary for survival, such as time and direction, and the provision of modern "white man" comforts. The practice of bushcraft develops in an individual a remarkable ability to adapt quickly to a changing environment. Because this is so, the activity is a valuable counter to today's specialisation, and particularly significant in youth training work. (Graves c.1950)

This thesis has necessarily been wide-ranging, since its starting point is the politically, culturally, and ethically complex history of military and commercial colonial expansion. While I have sought to limit the historical scope by focusing on UK colonialism, predominantly in North America, as bushcraft emerged in the twentieth century, it has been necessary to maintain at least a northern European focus, because Scandinavian and North Woods influences are so strong. At the same time, scholarship of the last few decades has strongly problematised the idea of 'indigenous knowledge', especially that produced by indigenous peoples themselves (Battiste and Henderson 2000). Further, the inquiry has highlighted some crucial distinctions between bushcraft and other similar social practices, such as survivalism, tourism, outdoor education (OE)/outdoor adventure recreation (OAR), as well as some vital overlaps. Because a central concern of the thesis is the transformative relationship between bushcraft and indigenous knowledge, and because bushcraft practice is most visible as education, it was also necessary to explore educational theory, which is itself both ethically and politically charged. The case studies explored and tested the theoretical framework developed in the first four chapters, and provided a focus on practice as a means of grounding theoretical perspectives. Chapter 8 will seek to draw together the theoretical framework with the concerns arising out of practice, to provide some answers to the research questions with which I began, namely:

1. What is bushcraft?
2. How is bushcraft knowledge selected, produced and transmitted?
3. What is the relationship between bushcraft and indigenous knowledge?
4. How does bushcraft practice transform indigenous knowledge?

8.2 Bushcraft's colonial inheritance

Bushcraft's origins are various. Historically, it arises from indigenous knowledge mediated through military and commercial colonialism. In the UK, bushcraft finds an emotional affinity with archetypes of independence from urban society such as Robin Hood and the literatures dealing with him [34], a craft base in traditional green woodworking, and a legacy of tracking and trapping from poaching and game keeping. Bushcraft arises from both epistemological and ontological knowledge, therefore. Many of its technical procedures may be found in the archaeological record, evidencing the deep cultural roots of its practice. Thus, for the UK, bushcraft's colonial inheritance is both defining of the modern era while being a relatively recent part of its history. Consequently, the 'layering' effect of history means that its colonial inheritance is held in relationship to its folk, vernacular, and archaeological inheritances, as *one* part of a much more complex 'palimpsest'[35]. Although contemporaneously entwined, historically, therefore, UK bushcraft is distinctively different from North America's 'primitive technology' movement, since the geographical placing of primitive technology foregrounds its colonial inheritance, and relates it very directly to complex political and cultural issues such as Indianism, appropriation, and hybridity. At the same time, however, bushcraft is closely related to American Woodcraft. Indeed, bushcraft, I suggest, is a global type of woodcraft, involving the same hybridisation processes of indigenous knowledge with Western Europeanised technology, for living and travelling outside of urban areas. This process of hybridisation arose variously

[34] See for example, John Matthews (1993) *Robin Hood*. Glastonbury: Gothic Image.

[35] 'The term 'palimpsest' has become particularly valuable for suggesting the ways in which the traces of earlier 'inscriptions' remain as a continual feature of the 'text' of a culture, giving it is particular density and character . . . While the 'layering' effect of history has been mediated by each successive period, 'erasing' what has gone before, all present experience contains ineradicable traces of the past which remain part of the constitution of the present.' (Ashcroft, Griffiths and Tiffin 2000, p.174)

across the colonial frontiers of the neo-Europes and was eventually drawn together under the epithet of 'bushcraft'.

Therefore, the colonial inheritance of bushcraft is significant as a central area of its analysis, especially in avoiding exploitation of other cultures and appropriation of their knowledge. This is a concern because the political derivation of indigenous knowledge is as a binary to Western Europeanised knowledge, and thereby positioned as 'savage' to the 'civilised' colonisers. It is the set of binaries arising from such conceptual positioning that formed the 'violent hierarchy' used by colonisers to justify their degradation and exploitation of indigenous peoples. Seeking to understand the relationship that bushcraft practice has with indigenous knowledge is crucial, therefore, to identifying how far bushcraft practice is ethical and how far it may represent a continued colonial exploitation.

Post-colonial issues are especially a concern since the derivation of bushcraft intersects with the derivation of indigenous knowledge, insofar as both are positioned as 'rural' in a binary with 'urban'. For example, James Fennimore Cooper's Natty Bumppo is an unlettered man of the forests, with a knowledge of flora and fauna, and skills in hunting and forest living, second only to the Mohicans with whom he lives; his understandings are constantly presented as different from the urbanised knowledge of settlers and soldiers living in forts and communities of eighteenth century North America. Similarly, in an earlier tradition from twelfth century English literature, Chaucer's Yeoman is a forester, described largely by his appurtenances - bow and well-fledged arrows, green hood and cloak, horn, dagger, sword and shield – and by his knowledge, since 'Of wodecraft wel coude he al the usage' (Chaucer 1957, p.1(A) 110), strongly contrasting with the urbane knowledge of most of the other Canterbury pilgrims. This theme is consistent in English pastoral writing, so that, for example, Thomas Hardy's *The Woodlanders* contrasts Giles and Marty's deep understanding of the woodlands, 'whose origin, continuance, and laws they foreknew', with that of all other characters, as the difference between 'the conjuror's point of view' and 'the spectator's' (Hardy 1982, p. 341). The difference is, that Chaucer's Yeoman, like Marty and Giles, is located in England, and his bushcraft knowledge is also indigenous knowledge that is rooted in his own culture and ancestral homeland: it has not been borrowed or appropriated from other cultures. Natty Bumppo's

bushcraft, however, has been learned largely from the Mohicans with whom he was raised and who are his constant companions and friends – it is knowledge that has been gifted to him by them, and extended by his own assiduous practice. Bumppo himself loses no opportunity to emphasis the differences between the customs and moral philosophies – their 'gifts', as he terms them – of the Mohicans and himself as a pure-blooded white man who 'has no cross in his blood' (Cooper 1826, p. 62).

This differentiation also denotes an uncomfortably eugenic sub-text in Fennimore-Cooper's work, and reveals the political tension between the terms 'bushcraft' and 'indigenous knowledge'. In spite of the layering effect of history, and the cultural inheritance and geographical positioning of bushcraft, this strong potential for appropriation gives the politics of bushcraft a capacity for being very highly charged. This is especially the case in contemporary practice, at a historical point where peoples whose cultures have been deeply damaged by colonialism, are writing back to Western culture, and both reclaiming and redefining the meanings, parameters, and ownerships of indigenous knowledge. Therefore, one question that arises in analysing bushcraft, is where does authenticity reside?

8.3 Bushcraft, tourism, survivalism and outdoor education

Outdoor education has emerged out of the overlap of tradtions and attitudes of camping, outdoor recreation and sports (which itself is partly rooted in militarism – at least there is a shared relationship), together with tradtions in military training. Over the past two decades, outdoor education (OE) has set out to critique and re-examine the theoretical underpinnings of its own practices. Chris Loynes (2002), among others, has criticised British outdoor learning as belonging to an out-dated algorithmic paradigm, expressive of a modernist tradition. He suggests that current practices in outdoor learning are characterised by: formulaic approaches influenced by scientific rationalism; a production line approach that treats the participant as little more than an object, resource or labour, manufactured to fulfil a role as a cog in a machine; and a marketable commodity in which the outdoor learning experience is treated as a product that becomes highly packaged and universalised in an 'off the shelf' approach. Taken together, these factors, can result in 'a participant who is oppressed rather than empowered by their managed experience' (2002, p.5).

This, Loynes suggests, is part of a deeper tradition in outdoor learning, with its roots in training youth for military scouting (such as in Baden-Powell's Scouting) and war, since 'many youth expeditions were and still are led by men and women trained at Sandhurst' (2002, p. 3) The underlying values of this dominant tradition in outdoor learning are of control, independence and hostility 'where landscape becomes a hostile terrain' (Loynes 2007, p.263). Indeed, outdoor activities such as the high ropes course[36], mountain biking, bungee jumping and so on, lend themselves to a universal treatment that Loynes refers to as a 'adventure in a bun' (1998), or the 'McDonaldisation' of outdoor experience. In sum, outdoor education's customary aim - to provide participants/learners with 'predetermined outcomes, which are measured' (Loynes 2002, p.2) typifies OE practice as *behavioural training*. Behavioural training is similar to the operant conditioning advocated by B. F. Skinner (1948) and his adherents[37] rather than education, since education also seeks a qualitative, fundamentally ethical change, which can be accounted for but cannot be measured.

Following these observations, in 2002 Loynes called for a more 'generative' paradigm in outdoor education. Since then a more relational, empathic, authentic and intimate experience of nature has been explored. This principal concern in contemporary outdoor learning has emerged and coalesced around the central idea of *place*. The notion of 'place based pedagogy' or place-responsiveness and sensitivity is now firmly established in contemporary outdoor education practice and theory (Wattchow and Brown 2011; Higgins and Nicol 1998). In this new approach, a confrontational, conquering, controlling and militaristic attitude towards nature is considered to be antithetical to the development of an empathetic relationship with outdoor places. Outdoor education theorists have identified this as a critical concern for outdoor education in response to today's growing environment demands (Wattchow and Brown 2011), whilst also recognizing that:

---

[36] Ropes courses use woodlands to create a network of high and low ropes and cables which participants traverse, on a pre-set route, using ladders, trapezes, artificial footholds, built platforms, beams, zipwires and tightropes with rope handrails, often competing with each other in speed and endurance.

[37] Skinner is a particularly significant figure here since his Utopian novel, *Walden Two* (1948*)* deliberately reworks Thoreau's (1845) pastoral idyll, *Walden: or, Life in the Woods* in terms of strictly managed behavioural conditioning.

> A recent review of research on outdoor learning shows that education *about* the environment, often called field studies in the U.K., also does not lead to education concerned *with* the environment. (Loynes 2007, p.265 emphasis added)

Responsiveness to place is therefore concerned with an outdoor education that develops in people a sense of attachment through participation in authentic experiences, which occur in natural places (Wattchow and Brown 2011). However, how this is achieved in outdoor learning practice, is less clear. Wattchow and Brown recently created a set of loosely defined 'signposts' to help identify characteristics of place responsive outdoor education practice (2011). These are: 'Being present in and with a place', utilizing 'The power of place based stories and narratives', 'Apprenticing ourselves to outdoor places' and finally utilizing and creating 'The representation of place experiences' (Wattchow & Brown, 2011, p. 182). These suggestions are aimed at promoting practices in which learners develop an intimacy with the land. This new focus has provoked broad notions about the usefulness of indigenous knowledge for developing an intimate and empathic relationship with local place (Cohn 2011; Loynes 2002). Consequently these ideas have begun to enter the outdoor educational discourse, as part of a suggested philosophical foundation for practice (Cohn 2011). Loynes, for example, connects notions of place, understood as a 'sensual intimacy with the land' with 'indigenous traditions' and with 'authentic experience', when he says:

> Critically, it was seen as important for this [outdoor education] to be an experiential education, felt and practised as well as understood. This sensual intimacy with the land and the people has strong links with ideas about *indigenous traditions* and the notion of *authentic experience.* (2002, p.9 emphasis added).

A more explicit exploration of this idea that connects Western approaches to outdoor learning with indigenous knowledge, is attempted by Cohn (2011). In a recent paper entitled *Indigenous ways – the fruit of our ancestors*' Cohn (2011) somewhat uncritically proposes so-called 'indigenous ways' as a suitable 'new' philosophical and practical foundation for theory and practice. This is a thoughtlessly appropriating approach, which homogenises all indigenous knowledges into a universal type which represents the knowledge of all of our ancestors, and is therefore fruit that is ripe for picking. This is of course deeply

problematic, and is in danger of demonstrating and inaugurating a type of neo-colonialism in outdoor learning approaches to place.

In tourism studies, the notion of 'existential authenticity' has proliferated in its literature in recent years, and converges with outdoor education in the concepts of authenticity, identity and place (Rickly-Boyd 2013). For example, Rickly-Boyd (2013) provides an ethnography of lifestyle rock-climbers in which the notion of 'place' becomes a site for 'existential authenticity'. This is because, as Rickly-Boyd explains, 'existential authenticity' is something that 'is not created in isolation in the individual', rather 'it is in and through place that the world presents itself' (Rickly-Boyd 2013, p. 684). It is posited that through activity in and with place authentic personal connections to it are made, which strengthens identity. Thus, 'An outdoor education in *experiencing* relationships *in place* is better, as it signals the fundamental importance of experiencing and the crucial contribution of place in identity formation and sustenance' (Wattchow, 2005, p. 14). However, Greenwood (2013, p.452), in a review article of Wattchow and Browns' seminal text *A Pedagogy of Place* (2011) cautions that:

> In many cases around the world, especially in the United States, Canada, Australia, and New Zealand, the multicultural aspect of place-conscious education includes embeddedness within, or at least connection to, Indigenous culture, epistemology and associated heritage lands. When this connection is made, as well as other connections that acknowledge the roles of colonization and power in the process of place-making, place-conscious education can become much more than localized environmental learning. It can also become part of a larger politics of cultural critique and renewal that recognizes the link between power, place, and education and the educational possibilities suggested by the ethical imperative of reinhabiting colonized space in a global context.

Although in bushcraft and primitive technology wilderness places are visited for serious leisure purposes and for outdoor educational activity, both bushcraft and primitive technology share similar practices and ideologies that separate them from tourism. Bushcraft's different histories suggest a difference in existential authenticity as described by Rickly-Boyd. Thus, while accepting with Rickly-Boyd (2013, p.3) that tourism experience can 'not only induce spontaneous, heightened emotional states but also act as a catalyst for existential change', practitioners of bushcraft and of primitive technology do not have the insulated existence, highly mediated experience, or the ultimately passive,

objectifying gaze that ordinarily characterises touring. Professional UK bushcraft educator, Dale Colett, highlights this difference when he says:

> I want to be part of nature, not a spectator that is just visiting. Not a tourist; because we are all tourists in the world of nature, people visit nature but are not part of it. And, to be part of nature means going out there completely naked, stripped of modern technology – with nothing – being a true human animal in the wild. We have lost our ability to live like that in nature so now we have to take technologies that makes us a tourist in nature, but if we can re-learn skills, we can then go into nature and become one with that environment – become part of it again, become human again. (Collett, Interview 2014)

Bushcraft and primitive technology thus require an engagement at an intimately personal level, with the detailed minutiae of the natural world, seeking not a Foucauldian gaze *at* it but an intersubjective absorption *into* it, literally and physically, as well as psychologically and emotionally.

Bushcraft's key motivation is to learn how to live and travel in remote areas, utilising what the natural world affords the practitioner, who wishes to increase his land based skill and knowledge in order to strip back what technology he carries with him as he travels, replacing it with technique. It is here, in its historical and contemporary key motivation that bushcraft diverges clearly from tourism and outdoor education. For this reason, the contemporary bushcraft practitioner may travel to other cultures that foreground technique rather than technology as their means for living in remote, wild areas. Technique is also sought through the archaeological record as well as ethnohistorical records. The task here is not simply to appreciate the artefacts associated with technique, but to learn or discover them as manual, physical, embodied, personal skill (see for example the kuksa case study in this thesis). This is not typical of tourism's search for authenticity in other places, peoples and times, but rather relates to a deeper authenticity that is concerned with an involved, implicate relationship with the natural world.. Therefore, although bushcraft shares a historical relationship with tourism, through its genesis in adventurous travel and 'how-to' manuals, and its contemporary interest in extant indigenous peoples, and shares too some of the influences of romanticism and primitivism, at the same time, contemporary bushcraft's primary aim precludes it being labelled as simply a type of tourism. This core focus and primary aim of bushcraft - outlined above – also separates it from outdoor education.

While sports such as kayaking and climbing certainly experience relationships in place, and rightly claim a degree of existential authenticity in doing so (Rickly-Boyd 2013), outdoor education's traditional oppositional stance between nature and self means that its idea of place is inflected in a particular way. In this framework, place is fundamentally a kind of *terra nullius*, a no-man's land, a canvas on which the sports enthusiast expresses themselves, inscribes their victory, and demonstrates their dominance. This is also echoed in many of the entertainment survivalist media productions that have emerged throughout the past decade, in which original values are lost. Loynes (1998, p.36) uses the example of the ropes course as exemplifying such an approach:

> The ropes course can be seen as an excellent example of the McDonaldisation phenomenon. It distils some of the essences of less certain adventures into a guaranteed adrenaline rush as a predictable outcome.

This approach to entertainment survivalism, typified for example by Grylls' *Mission Survive*, thus exemplifies the high ropes course approach that provides a guaranteed challenge with a predictable outcome, which is safe and sanitised and has little to do with the authenticity experienced in relationality with place. It is interesting to note however that Grylls' programmes blend passé outdoor educational models of overcoming fear through the controlled adrenalin buzz, with a military training mind-set of overcoming disgust through submitting to rituals of repulsion, such as drinking urine and eating live organisms (*Mission Survive* 2015). These are the unconscious movements of a colonial mind-set which, when commodified, amount to a neo-colonial endeavour. Survival entertainment, in particular, with its 'McMilitary' undertones, appropriates indigenous space as *terra nullius* and degrades it by selling it to a metropolitan audience as an authentic expression of dwelling in that ecology. Where bushcraft seeks to form a relationship with place that acknowledges its political genealogy, learns about its ecological affordances, and respects – indeed, prizes – the skills of indigenous people, outdoor education, like survivalism, has customarily reduced that intricately entangled sense of place to a hygienicised location for an activity.

Furthermore,, bushcraft's concern with re-inventing and re-discovering skilled techniques from other sources, and practising them in their home territory is a less likely consequence of tourism or outdoor education. Rather, these latter

depend on travel to a specific geographical and temporal location for their activity. For example, a bushcraft practitioner may carve a kuksa, without having ever visited Sápmi or Saami peoples. This is because it is the skilled practice of carving a cup from greenwood selected and harvested by oneself, directly from nature, that is foregrounded, rather than the cultural experience of touring. It is not, therefore, a usual feature of tourism, and is perhaps better explained by the notion of an *exchange of practice*.

Rather than seeking the authenticity of purchased objects hand-made by other people, as typified by tourism, bushcraft practitioners are instead exemplified by their aspiration to *make and employ* useful objects themselves, in a skilled interface with ecologies and landscapes. Their focus is on an exchange of practice with peoples who, while they may incorporate sophisticated technology in their land-based practices –such as the snowmobile - nevertheless foreground self-reliant land-based skilled-practices over total dependence on sophisticated technology and capitalist systems. This also refers to peoples who use practices that enable them to utilise nature as it is found - in a raw, 'wild', undomesticated state. Whilst this is often typified by peoples termed 'indigenous' or 'hunter-gatherers', it also includes groups such as craftsmen, woodsmen, gamekeepers, poachers, hunters and trappers in less remote cultural contexts. Bushcraft practitioners want to know personally, directly, and bodily - how a practice is carried out in this environment. Their aim is to remove the layer of insulation provided by tourism, not to consume objects passively but to actively acquire the skill to produce objects and creations, and to comprehend less tangible processes (such as wildlife tracking for example) for themselves. What they seek is not a transitory moment of 'flow' (Rickly-Boyd 2012, p.100), but rather, an authentic knowing of land and resources through skill and knowledge, and one that can help them remake a similar relationship elsewhere. Bushcraft practitioners want to understand relationality with the natural world wherever it is found, which often encompasses those individuals, professions and cultures that are able, in some way, to be self-reliant outside the hegemony of capitalist systems. It is processes and living skills, not cultural items that are of interest to bushcraft practitioners, often in an endeavour to understand how they might reclaim their own cultural and personal indigeneity.

This reclamation and rediscovery of indigeneity, through an exchange of practice, is exemplified by Ray Mears when he travels to Australia in his television series *Wild Food* ('Australia' 2007). Accompanied by the respected archaeo-ethnobotanist Gordon Hillman, Mears wishes to observe extant hunter-gatherer lifestyles in an attempt to understand what 'our ancestors may have been using' ('Australia' 2007) in a kind of historical analogy through an exchange of practice with Aboriginal hunter-gatherer culture. This, we are told, is because plant remains are scarce in the archaeological records, leaving few clues as to what and how food-plants might have been used by our European ancestors. Thus Hillman and Mears study analogous Aboriginal practices to see how hunter-gatherers '*see* their landscape' and 'how they work with their resources' ('Australia' 2007). However, while Mears and Hillman point out that the songs that the Aborigines have for each plant is 'a sign of the value accorded to each resource' ('Australia' 2007), bushcraft rarely includes similar or analogous cosmology as a part of its practice. Nevertheless, Hillman tells us that we lost the knowledge of our European ancestors thousands of years ago, perhaps, he posits, because we lack these cultural ways of transmitting knowledge; 'we [can] know more about it [wild plant food] through the experts – the Aboriginal people – who still use these plants …and so to be somewhere where this knowledge persists, where the people who use these plants, or their parents do, or grandparents use these plants as their main means of survival, is an incredible privilege' ('Australia' 2007). Mears ('Australia' 2007) reveals how this sort of exchange of practice occurs in bushcraft when he tells the viewer:

> The Aboriginals of Australia have brought hunting and gathering alive for us, in a way we could never do at home. We can now go back to Britain with our minds full of the *possibilities*, of what existed in *our* long vanished past. I am not suggesting that what we have seen here is how things were in Britain, but certainly we've seen from the songs and the dances…that Aboriginal lives are *intricately* tied to their food resources, *and* to the land itself. I can't wait to get back to Britain to explore our foods, and what they might have meant to our hunter-gatherer forebears.

Bushcraft practice represents this kind of on-going enquiry into self-reliant, pre-technological processes, as a Western rediscovery of how one might utilise affordances presented by landscapes. To reclaim these affordances bushcraft often refers its practices to indigenous knowledge, and as this thesis shows, these

practices historically emerged out of an appropriated hybridity with indigenous knowledge. Bushcraft now seeks to learn from indigenous knowledge in an attempt to reclaim its own Western, and European indigeneity. Therefore, bushcraft must be simultaneously cognizant of the danger of appropriation of indigenous knowledge, while also being alert to its potential for decolonisation. However, in the UK, there are also many prohibitions and therefore restrictions concerning the use of natural resources and spaces. This affects where practitioners can go to practice their skills and what natural resources are legally available to them for use; therefore influencing and shaping which skills can be lawfully practiced. In addition, natural and wilderness areas are relatively scarce in comparison with, for example, many areas of North America. These restrictions upon bushcraft practice, especially in the UK, have shaped the directions of skill-practices within UK bushcraft. One example of this is highlighted in this thesis by the case study concerning natural-trapping knowledge – one bushcraft activity that is highly regulated by British law.

8.4 Bushcraft affordances

In summary, then, bushcraft is distinguished from tourism, outdoor education, and survivalism, by its focus on authenticity. Where tourism is relatively insulated from its location, where outdoor education renders it *terra nullius*, and survival television uses it as a backdrop, bushcraft seeks an intersubjective absorption into it, by developing a deep knowledge of ecology, political and cultural history, and by working closely with indigenous practitioners as a shared community of practice. Identifying these features of its authenticity also goes a long way to answering questions about its ethical stance, since the intention of bushcraft practitioners is to relate to ecologies and their peoples as respectfully, responsibly, and realistically as possible.

Fundamental to the skilled practices of both bushcraft and primitive technology, and unlike tourism and outdoor adventure education, is an intimate interface with the landscape, which Mears (Iromoto 2015) clearly has in mind when he says:

> And as time has gone on I realised that many of these skills were disappearing. The really sad thing is that when this knowledge is lost, an interface with the

> landscape is lost. That's the one thing that First Nations have that we should aspire to – is this close tie to the land, because we depend upon it.

Even in the seemingly more touristic activities of bushcraft education – e.g. the bushcraft expedition/pilgrimage to visit remote indigenous peoples - it is primarily 'their close tie to the land' that is highly valued, admired and sought, and a personal interface with the landscape that is foregrounded. Thus, the focus remains on an exchange of skill, taking place in a particular location, which enables the interface with nature to be made through located, embodied practice. Continuing to be able to use that skill depends not only on remembering its techniques but also on understanding the affordances offered by landscape for its practice.

Bushcraft, then, is also about learning to see and access affordances in the landscape. Ingold (2000, p.169) tells us that the Gibsonian concept of affordances offers a relational way of thinking about human-nature relations, one that carries the potential to collapse the 'sterile Cartesian dualisms of mind and nature, subject and object, intellection and sensation' (2000, p.167). Ingold continues that the world can only appear as 'nature' 'to a creature that can disengage itself – or otherwise imagine itself to be disengaged – from the processes of its own material life' (2000, pp.167–168). However, while for Gibson (1979) the environment seems somehow already laid out as a backdrop in which the perceiver acts, in phenomenology a person is a being-in-the-world and thus the coming into being of the person is also the coming-into-being of the world (Ingold 2000, p.168). The relationship is an intersubjective one in which both observer and observed are actors, with each having a potential, and an agency. Thus this core focus of bushcraft - skill in perceiving, manipulating and utilising nature's affordances - locates it as an interstitial space; one that holds the potential to collapse the Cartesian dualism of mind and body, and the Enlightenment dualism of art and science, in the doing of its practice.

Affordances do not only concern how one might use one's environment as found, but crucially how one might *transform it.* Such transformation requires skilled activity, the level of which can be very highly nuanced, which is elucidated, for example, by the case studies of friction fire lighting and trapping skills. Exchange of practice, then, is also concerned with learning how to interface

with a particular ecology, so as to be able to perceive, appreciate, and work with the affordances it offers. The ability to work within affordances is reliant upon the particular skill level of specific individuals embedded in precise local environmental conditions. Consequently, where skilled individuals see possibilities in the landscape and its materials, the unskilled may see only hostility and bleakness. However, as Mears points out in his television programme *The Arctic* ('The Arctic' 1997), this is not only a matter of an external skill, but also the development of inner qualities. He provides the example of fishing under the ice, which requires patience and perseverance in the tough conditions of temperatures well below freezing.

8.5 Skilled practice: technology and technique

The ability to identify, understand, and relate to the affordances offered by a particular landscape is called by Mears a process of looking *into*. In his BBC television programme 'The Arctic' (1997), Mears says:

> I have come here to hunt with them [Inuit hunters], and learn the skills that their ancestors have passed down. The first thing that strikes anyone who visits this region is the sheer bareness of the landscape; it seems incredible that anyone can live here at all. But like all wild places, the secret of survival is learning to look *into* the wilderness, rather than just *at* it, and the Inuit are experts. Here, every hunter must be able to navigate in a land where compasses can't be relied upon; make water from a frozen desert, and most importantly build shelter where no natural shelter exists.

In this extract Mears contrasts the knowledge of the Inuit hunters with that of the visitor. Where the Inuit hunter sees *into* the landscape to appreciate what it might afford, the visitor looks *at* it, seeing only 'bareness' and a frozen desert. Thus, where the Inuit hunter sees a life, the urban metropolitan visitor sees the impossibility of life. The difference is, of course, that the Inuit hunters possess the land-based knowledge and skills required to live from the land, not typically possessed by the Western urbanised visitor.

Through a personal skilled relationship to their land, Inuit hunters can gain access to the possibilities that are afforded by the landscape – food, warmth, shelter, water and tools - which otherwise remain locked up in the land and its materials. In order to live on the land, then, one must learn to both notice and unlock its potential - to read and interpret the land for its signposts – to develop

landscape literacy. Gibson's theory of visual perception describes affordances as providing the potential for interaction with, and use of, the environment. Such interaction and use is dependent upon what resources are available in a particular ecology, and conditions, the history of the organism inhabiting the environment, and the skill with which an organism can manipulate things in the environment. Thus affordances imply 'the complementarily of the animal and the environment' (Gibson 1979, p.128).

> Ecologists have the concept of a *niche*. A species of animal is said to utilize or occupy a certain niche in the environment. This is not quite the same as the *habitat* of the species; a niche refers more to *how* an animal lives than to where it lives. (Gibson 1979, p.128)

In bushcraft the idea of a niche as an active utilitarian concept rather than habitat as simply providing a prior ecological space suitable for occupation by a species is germane; in this sense humans, like the Inuit hunters, co-create ecological niches through skilled activity. This invokes activity and skill as a necessary part of the habitation of an ecological type. Thus a human niche is a set of affordances that require a specialised constellation of human skills that are adapted to live in a particular ecological niche. This might be described as an 'ecology of skills'. However, whilst Gibson notes that affordances are 'in a sense objective, real and physical' and thus unlike values and meanings which are 'subjective, phenomenal and mental' (1979, p.129), he simultaneously observes that 'an affordance is neither an objective property nor a subjective property; or it is both if you like' (1979, p.129). Thus he suggests that:

> An affordance cuts across the dichotomy of subjective-objective and helps us to understand its inadequacy. It is equally a fact of the environment and a fact of behavior. It is both physical and psychical, yet neither. An affordance points both ways, to the environment and to the observer. (1979, p.129)

In this way, land skills are as much an aspect of the environment as of the individual. Everything resides in the practitioner, in this formulation of skilled practice, foregrounding technique and backgrounding technology. The ideal of bushcraft exemplified in Mears's documentary of building a birch-bark canoe and carving paddles for it, is to have sufficient technique to dispense with all but the most basic technology – a knife and an axe. Thus, where outdoor education takes

for granted the existence of technology as a prerequisite for its pursuit – as kayaks, climbing gear, and other material culture – in the practice of bushcraft the need for externally manufactured artefacts is continuously questioned, and practitioners are constantly interested in the possibilities of dispensing with them. Primitive technologies, of course, take that questing interest as a fundamental part of their practice, seeking to replace technology almost entirely with technique.

The foregrounding of technique over technology is, of course, a historical process, as Ingold (2000, p.289) points out:

> the history of technicity, from the hand tool to the machine, is not from the simple to the complex, but is rather tantamount to the withdrawal of the producer, in person, from the centre to the periphery of the productive process. It is the history, in other words, not of complexification but of externalisation.

Consequently, it is also significant in understanding European interpretations of indigeneity and the political connotations of those:

> Classically portrayed as people with the simplest of technologies, it would be closer to the mark to say that hunter-gatherers have no technology at all. That is to say, their lives are not bound, as is so often suggested, to the operational requirements of a pre-determined 'techno-environmental system'. Rather the success of their way of life depends upon their possession of acutely sensitive skills of perception and action. (Ingold 2000, p.289)

In this formulation, bushcraft is a radical refusal of the 'pre-determined "techno-environmental system"' that provides the basis and groundwork for tourism, military survival and for outdoor education. This is exemplified by Mors Kochanski's popular bushcraft axiom; 'The more you know, the less you carry' (Karamat Wilderness Ways 2016). In addition to simply lightening the load, his maxim denotes a refusal of technology and reliance upon the systems that produce it – usually associated with activities such as backpacking and adventure sports. The processes through which bushcraft is taught – the exchange of practice, the appreciation of affordances, the development of relationality with a specific ecology – separate it further still from outdoor education. As Ingold (2000, pp. 289–290) points out, the learning of technical mastery is individual to a specific person:

> developed in the contexts of their engagement with other persons or person-like agencies in the environment, technical skills are themselves constituted in the matrix of social relations. Hence, insofar as they involve the use of tools, these must be understood as links in chains of personal rather than mechanical causation, serving to draw components of the environment into the sphere of social relations rather than emancipate human society from the constraints of nature. Their purpose, in short, is not to control, but to reveal.

This distinction between 'control' and 'reveal' also reflects the ethical difference between survivalism and bushcraft. Survivalism's ethic of 'conquest of nature' is simply outdoor education's traditional ethic of 'control over nature', writ large. In bushcraft, technique is not simply the mechanical performance of repetitive actions to achieve an efficient end for a personal triumph – it is an expression of 'social relations', a means of expressing and consummating a relationship not only within a community of practice, but in active, imaginative relationship to the natural world. As Ingold (2000, p.320) puts it:

> the spear, arrow or trap serves here as a vehicle for opening or consummating a relationship. If the arrow misses its mark, or if the trap remains empty, it is inferred that the animal does not intend to enter into a relationship with the hunter by allowing itself to be taken.

Similarly, while sticks may afford fire, if the student wants to access the affordance of fire they must go through a challenging process of understanding, skill acquisition, and inner development of qualities to cope with the challenges presented. Without that, the sticks will not enter into the desired relationship of fire. This process is experienced phenomenally as a deeply felt re/connection to an essential, primal, pre-historic humanness, expressed potently as our ancestral human inheritance, which, in practice, is often vocalised by learners as cajoling or irritated invocations to the sticks to take flame. The development of technique and the growth of personal resilience are conjoined in learning bushcraft, providing an expression of existential authenticity that is both located in a particular contemporary ecology and that expresses a pre-industrial mind-set.

8.6 Alienation and reconnection

Bushcraft's foregrounding of technique and relationality provides a counter-position to Marx's theory of alienation. Marx understood alienation as something rooted in the material world, since for him, it could only be relieved through

social change rather than just a psychological one (Cox 1998). Marx argued that 'the need to labour on nature to satisfy human needs was the only consistent feature of all human societies' (Cox 1998, p. 42). Labour is conceived by Marx as 'free, conscious activity', which 'is man's species-character' (Marx 1992, p. 62). Marx distinguished human labour from that of other animals because, unlike the spider's activity of weaving a web, the human architect holds in his imagination an idea of what it is that he wants to produce, prior to establishing it in reality. Thus at the end of every labour-process, what is produced already existed in the *imagination* of the labourer at its commencement. This conscious use of the imagination in constructing future events was particularly highlighted in the imaginative projection required by the skill of tracking and trapping (or hunting) animals. Indeed, Lois Liebenberg's argues for the development of tracking skills as being the *original* science, since science, for Liebenberg, 'is also the product of human imagination' (Liebenberg 2013). Imagination, for Marx, provided the distinction between *conscious* human activities, from that of the repetitive rote activity of non-human creatures. Thus, it is suggested that 'The species-nature of animals is an eternal repetition, that of man is transformation, development and change' (Fischer, Marek and Foster 1996, p. 51). All of which depends, in Marx's' formulation, on the key quality of imagination as that which distinguishes the unconscious activity of the web-weaving spider from the conscious liberated activity of the human architect (Cox 1998). Marx called this unique human capacity for conscious labour our 'species being'. Furthermore, Marx frequently reinforced this idea that our nature is forged in material engagements, so that working on nature alters not only the natural world, but also the labourer himself. Thus 'By thus acting on the external world and changing it, he at the same time changes his own nature' (Marx 2007, p. 198). Labour, in Marx's formulation, is a dynamic process through which the labourer shapes and moulds the world in which he lives and stimulates himself to create, become and innovate. Therefore just as it is for the artist, who 'does not only display his talent in his work; his talent is [also] developed there', so too is man the result of his own labour (Rubinstein 2006, p. 107).

However, the commoditisation of man's essential being for production has, according to Marx, resulted in a separation and alienation of man from his essential 'species-being' (his humanity), and from his inorganic body (external

nature); thus resulting in a degradation of labour, and a dehumanisation of the individual. Therefore, capitalist productions serve to estrange man from his own essential being as a 'producer' in and of the natural world; from the natural materials of his interaction and labour; and from the final items and rewards of his own creativity as expressed through his activity (Vogel 2012, p. 302; Braverman 1974). In this process of abstraction and objectification, man's internal and external nature become alienated and meaningless – not an expression of his personal humanity but harnessed as part of an impersonal machine – industrial capitalism. For Marx, such alienation is a condition that affects all those caught in the capitalist production system, whether they are aware of it or not.

Bushcraft's counter-position to Marxist alienation, its expression of Marx's 'species-being', its counter to dependence upon technological systems and to estrangement from nature as a result of urban artificiality, is identified by my research as three primary, although interwoven, motivations for bushcraft practice. These can be expressed as i) competence and self-reliance in and with nature, and for independence from the metropolis, whether in a wilderness or in a domestic sphere, and ii) a desire for a sensuous, experienced, felt, dexterous, physical and skilled (thus external) re/connection with the natural world as an ecological presence, and iii) a re/connection to an (inner) essential humanness that was expressed as a 'primal self', a 'human essence' or as a connection our 'ancestral roots', and perceived as the birth right of humanity. All three aspects arise from the activity of skilled practice in bushcraft, which returns to the individual free conscious activity for which the individual labours. Not for capitalist production but in developing skills that enable individuals to directly meet their own needs through that which nature can directly afford to those with the skill to access it.

Even without subscribing to Marx's position, it is evident that a 'pastoral ideal' occupies a key location in contemporary UK culture, as a location for retreat, recreation and relaxation. OE depends on the commodification of such an ideal, as does popular television programmes such as *Countryfile* and *Nature Watch*. In the case of bushcraft, as this thesis demonstrates, its practice provides for its practitioners a re/connection to nature that is described as engendering a deeply felt physical, emotional and sometimes spiritual re/connection to the natural world. Competence, as skilled practice and technique, relies on this

reconnection with external nature, and through it is developed both internal resilience and an aspect of human nature that has been described by research participants as 'primal'. All of these qualities were linked to a feeling of being in touch with 'our' hunter-gatherer ancestors, who, it is felt, were able to live in a more human way. Thus, if Marx's theory of alienation estranges the individual from his species-being and his inorganic body by commoditising and systemising his labour; by alienating the individual from his free creative labour and the productions of that labour, and by rather systematising his movements and abstracting his production from himself, then bushcraft, it might be proposed, is one way in which emancipation from these modern conditions of internal and external alienation may be felt. By restoring to individuals the skills that their ancestors were able to employ, prior to capitalist production systems and technology being the dominant provider; by reasserting personal, embodied, creative productivity in direct relationship with nature, an experience of authenticity is reported by practitioners as being encountered through the development of skilled practice in replacing sophisticated alienating technology. In this framework, ironically, it seems as though the industrial-military project of colonialism spawned the knowledge and practices that provide a counter-current to its alienating ideologies of commodification and consumerism.

Dickens (1996, p.204) sums up this quality of bushcraft by saying that in humanising nature, humans naturalise themselves. That is, in the relation of human needs and the environment there is no inherent conflict between humanism and nature. The central important point here, Dickins continues, is a dialectical one. Humans convert nature into things they need, but in doing so they develop their *own* nature. They develop their inborn capacities and potentials in new, wholly unanticipated ways. This is expressed in popular bushcraft literature by Richard Graves (c.1950 n.p.) for whom 'The practice of bushcraft shows many unexpected results. The five senses are sharpened and consequently the joy of being alive is greater'. Dickens (1996) does however also note that in the real social and political world, matters are, of course, far more complex than this. But, nevertheless, the findings of this study support the proposition that arising from *practice*, the personal transformation that occurs is very real, carrying with it political and social significance.

8.7 Education and personal transformation

Skilled land-based practice, and the potential counter to alienation that it may provide for practitioners, indicates that bushcraft is both a practice and an ideology based in and transmitted by a particular process of education that includes direct teaching and autonomous learning. Bushcraft education's process moves the learner through the stages of: being trained in basic information and techniques (episteme); developing personal skill in a range of activities (techne); entering a deeply personal relationship with the natural world (gnosis); and extending their learning and practice so that they can live with and in the natural world in many different settings, using ethical judgement and practical wisdom (phronesis). In an early description of bushcraft, the results of its practice are explained by Richard Graves (c.1950 n.p.), as follows:

> The individual's ability to adapt and improvise is developed to a remarkable degree. This in turn leads to increased self-confidence. Self-confidence, and the ability to adapt to a changing environment and to overcome difficulties, is followed by a rapid improvement in the individual's daily work. This in turn leads to advancement and promotion. Bushcraft, by developing adaptability, provides a broadening influence, a necessary counter to offset the narrowing influence of modern specialisation. For this work of bushcraft all that is needed is a sharp cutting implement: knife, axe or machete. The last is the most useful. For the work, dead materials are most suitable. The practice of bushcraft conserves, and does not destroy, wildlife.

Today, Mears similarly explains:

> But bushcraft is not necessarily easily learned - many of the skills will challenge us to dig deep inside ourselves and discover hidden toughness and resilience that our modern life rarely demands of us. Rising to these challenges develops determination and a powerful positive mental attitude that in turn gives birth to an increased liveliness of spirit. Overall, students of bushcraft report that having become more alert to the land around them they enjoy an improved understanding and *relationship with nature and themselves*. (2002, p. 1, emphasis added)

As the case studies demonstrate, survey results indicate, and senior practitioners confirm, bushcraft sets out to develop inner qualities, such as resilience, sensitivity, patience, sensuousness, and acute observation, as well as external skills of dexterity and tool use. This suggests an important therapeutic identity for bushcraft as potential in its educational locations. Further exploration of this more metaphysical or psychodynamic aspect is, however, outside the scope

of this thesis. Since personal transformation is a key aspect of radical education, this deliberate intention identifies bushcraft education as a radical, libertarian pedagogy[38]. In Freire's formulation, the 'banking' concept of education treats learners as receptacles, limiting their power to memorising, repeating, and cataloguing the information deposited in them. By contrast, libertarian, problem-posing education develops consciousness and agency in individuals (Freire 1970, p.55) 'so they can become "beings for themselves"'. Libertarian education's purposes are creativity and transformation, purposes it achieves through praxis, since (Freire 1970, p.53):

> …apart from inquiry, apart from the praxis, individuals cannot be truly human. Knowledge emerges only through invention and re-invention, through the restless, impatient, continuing, hopeful inquiry human beings pursue in the world, with the world, and with each other.

While (Freire 1970, p.65) 'the banking method emphasizes permanence and becomes reactionary', by contrast 'problem-posing education – which accepts neither a "well-behaved" present nor a predetermined future – roots itself in the dynamic present and becomes revolutionary' so that 'Education is thus constantly remade in the praxis'. In bushcraft education, the banking concept of education provides its introductory, epistemic level, something that is necessary but does not define or describe the whole of its process or purpose. By contrast, survivalist training – especially survival manuals – relies on the banking system of education, with problems being posed to elicit stock responses. It is a training environment, which might be considered a 'part' of bushcraft's educational 'whole'. This means that while bushcraft can contain survival training as part of its episteme, survival training cannot contain the 'whole' of bushcraft education. Survivalism has little opportunity to engage in practice, since by its own terms of reference, surviving extreme situations is something that should or may never happen.

Thus, wilderness survival techniques remain a relevant and important part of bushcraft practice (as well as for their own sake, such as in military survival training) and the two categories share some practices and qualities; such as in wilderness preparedness, self-reliance and emergency techniques; and the development of qualities such as perseverance and determination and the need to

[38] An authoritative overview of the development of radical education is provided by Joel H. Spring (1975)

improvise, adapt and overcome situations as they occur. However when Mears tells us that 'survival is just the shorthand of bushcraft' (2013, p. 40) or that 'in the study of bushcraft we step beyond survival and learn the subtlety that makes outdoor life both certain and enjoyable' (2002, p. 1), he is, I suggest, referring to survival *training* (episteme) as being a critical and necessary 'part' of bushcraft, but not the *educationa*l 'whole' (gnosis) of bushcraft. However, like first-aid training in relation to medical education, wilderness survival training is effective, valuable, and is *necessary* for bushcraft, but is not *sufficient* to support the complex process of making myriad skilled and knowledgeable judgements – effectively positioning bushcraft as education, and survival as training; 'Whereas training depends upon the results of research, education is research in action' (Playdon 2011, p.31). Therefore, survival training cannot contain bushcraft education, whereas bushcraft education can contain survival training.

Furthermore, OE is separated from bushcraft education both by its positioning in the field of education and by its dominant mode of production. Where bushcraft education challenges the urbanisation, industrialisation, and fragmentation that typifies modernism, OE works within it to identify a recreational arena. In the field of education, radical forms of education 'have stood outside the dominant streams of educational development, which have been directed at reforming society rather than changing it' (Spring 1975, p. 9). As Nicol (2002, p.32) points out, however, 'the statutory development of outdoor education in the United Kingdom arose out of the 1944 Education Act' and had an explicitly reforming purpose. Further, as a part of mainstream, state-sanctioned education, OE is now well established within what Liz Stanley (1990, p.11) calls 'the academic mode', the Academy, with its 'production of alienated knowledge out of a denied labour process'. By contrast, bushcraft education stands outside the academic mode, as a form of praxis, underlined by its separateness from the 'leave no trace' movement, since bushcraft explicitly sets out to 'understand the world and then change it' (Stanley 1990, p.12). This separation between OE and bushcraft education in the UK is emphasised by OE's increasing references to indigenous knowledge and to 'friluftsliv' in its academic papers, yet there exists an almost total absence of any discourse in OE concerning the concept of bushcraft. This is in spite of bushcraft's high media profile since 2000, and its

close associations with indigenous knowledge, which it holds as central to its historical emergence, modern conceptualization and its practice.

The centrality of indigenous knowledge to contemporary bushcraft practice is evidenced, not only by its popular literatures and by a historical analysis, but also in the results of the online questionnaire survey conducted for this project. These showed that a high percent of respondents rated indigenous knowledge as 'very' or 'extremely' important to the development of bushcraft practice (A1, Q34). Additionally, when respondents were asked to rate a list of suggested sources for contemporary bushcraft practice, responses showed that 79 percent of participants indicated past indigenous peoples as very likely sources and 79 per cent indicated modern indigenous peoples as being very or extremely likely sources for the development of bushcraft practice (Appendix 1.2: Q34-36). None of this, it should be noted, is a traditional part of OE practice.

8.8 Decolonisation and virtue ethics

Late European colonisation involved a fundamentally capitalist discourse, based in the notion of productive work arising from the organizational genius of empire, which has far greater value than the being or work of an individual. As Braverman's (1974) work implies, in this industrialised framework, as well as removing liberty, an intention of enslavement was regulating bodily labour, to serve a power greater than the individual – the colonial systematisation of empire.

In Britain, the process of expropriation of the commons and the progressive transformation of pre-capitalist into capitalist relationships began in the twelfth century with land enclosures. The resulting privatization of property that enforced the exodus of small local farmers to urban industrial centres to work as waged labourers, separated (or alienated) the producers from the conditions of production. Thus the gentry colonised the peasants – removing them from the lands and forcing them into capitalist industrial markets where their labour became privatised, for the bourgeoisie (Cox 1998).

But the personal manual labour involved in the process of production that typifies bushcraft entails a refusal of the power of colonial and industrialised, alienating, capitalist production system. Consequently, although one can light a fire with a lighter, the bushcraft practitioner refuses this option because they wish to *make* fire or know how to do so for themselves, as a direct and unmediated

skilled relationship between practitioner and the raw materials afforded by the natural world – not only to be able to live outside the urban metropolis, but to do so without basic reliance upon its productions. This provides an explanation concerning why bushcraft practitioners repeatedly say of bushcraft, that ultimately 'it's about freedom'. Professional practitioners such as Collett, Rankinen and Moseley – mentioned elsewhere in this thesis - refer to this mind set as not being reliant on the highly systemized, strategic and global techno-industrial processes involved in 'putting a single match into my hands'. This is reminiscent of de Certeau's 'tactics', which seeks to resist the dominating strategies of institutional powers through victories of space over time; a 'tactic' 'is always on the watch for opportunities that must be seized "on the wing"…It must constantly manipulate events to turn them into "opportunities"' (de Certeau 1984, p. xix).

However, ethnographic research showed that bushcraft practitioners do not constitute a group that are seeking to live their lives in the fashion of hunter-gatherers, or who reject modern life or technology generally. Rather, they reported in intervciews and surveys that their wish is to develop skills to develop themselves, enrich their domestic lives (such as foraging for wild plant foods) and their experiences in and with the natural world. Their impulse tends to be ethical, rather than political. This also separates bushcraft practice from the explicitly political stance of anarcho-primitivism - a contemporary ideology that completely rejects civilization and technology in favour of a pre-technological, hunter-gatherer state of being (Zerzan 2005). Anarcho-primitivists are usually distinguished from traditional anarchists by their focus on the praxis of achieving a feral state of being (Zerzan 2005).

8.9 Bushcraft as a worldview

While indigenous scholars such as Battiste and Henderson (2000, p.42) articulate a coherent worldview, in which 'no separation of science, art, religion, philosophy or aesthetics exists', bushcrafters do not. It is virtue ethics that provides a structure for understanding the principles and values that notable and senior bushcraft practitioners hold in common. This is particularly important since, while world indigenous knowledge is a repository of tradition, held as myth, story, art, music, and wisdom, European traditional knowledge has been overwritten by fifteen hundred years of state-enforced, Christianised orthodoxy. The terms 'myth' and

'folklore' are now used dismissively. At the same time, however, 'the general use of the imagination' as Midgley (2006, p. ix) calls it is crucial to bushcraft in its ability to see possibilities in nature and in its active labour with natural materials. The cognitive process is described by Playdon (2011, p.167) in the context of medical education:

> In scientific practice, intuition and imagination act as a single, concurrent movement. Intuition, the knowing that comes before knowledge, prompts the scientist to notice a particular item at a particular time: it is, perhaps, the coming together of a lifetime's conscious and unconscious assimilation of knowledge, skills, and experience, to provide an inner prompting, to give particular attention to a particular detail. Concurrently, imagination paints a picture – an *imago*, or image – of what that intuitively perceived detail might, or could, represent or lead to. Suddenly, the whole of the person's power of inquiry is engaged in new discovery. These discoveries are inspired, we say, meaning, literally, that the *inspiro*, the 'breath of the god', has entered and moved the individual: a well-spring of previously unknown ideas has been tapped. It is in this way that Alexander Fleming intuitively noticed and imaginatively visualised the possibilities for penicillin, that Wilhelm Röntgen was inspired to discover x-rays, and that James Watson accounted for the breakthrough that led him to understand the structure of DNA.

This combined movement of intuition and imagination, supported by episteme and technique, is described by Ray Mears, in a recent short film, 'The Path of Grey Owl' (Iromoto 2016):

> When it comes to wild country, I think wild country is beyond country borders…And although here I am a stranger in this land, travelling in it, my understanding of nature makes me feel completely at one with this country. The skills of the bush connect you to the land in a very very tight way. This is something Grey Owl learned. And I think this is what we need to teach our youth. We need to train them to appreciate nature in an absolutely grassroots way. That is where it starts.
>
> He [Grey Owl] came to the conclusion that native culture was as fragile as the forest and the wildlife that was here, and yet in some ways it was also the solution; that if he could make people see the world from a First Nation perspective, they would respect the land, the wildlife, and each other.

Here, Mears focuses on 'the skills of the bush', as a basis for an 'understanding of nature' that produces an intimate relationship, that 'connect you to the land in a very very tight way'. Enskillment, technique, and an embodied, direct relationship with the natural world are fundamental to the educational project he suggests, in which 'we need to train them to appreciate nature in an

absolutely grassroots way. That is where it starts.' The endpoint, though, is in an effort of intuition and imagination that he ascribes to Grey Owl, the desire to 'make people see the world from a First Nation perspective'. This was a desire that arose from the real-life, felt experience of participating both in native culture and making a life dependent on a deep understanding of the flora and fauna in the Temagami region. It is this coherent praxis that allows Mears to feel 'completely at one' as 'a stranger in this land, travelling in it'. It is not only his physical being that is nomadic, however. He argues for a nomadic consciousness, an exchange of understandings as well as of skills. Mears's view that 'wild country is beyond country borders' effectively refuses the political boundaries of state, together with their reification of history, as a precondition for a progressive reconnection, in which people 'respect the land, the wildlife, and each other'. Taken together with virtue ethics, particularly those of practical wisdom (phronesis) and well-being (eudemonia), this radical, fluid, aspirational, fundamentally humanistic worldview is, perhaps, the closest bushcraft comes to articulating a cosmology.

8.10 Bushcraft and well-being

Bushcraft education has had an ambivalent relationship with mainstream education, and with the academic mode of production. The absence of reference to it in the proliferating literature of outdoor education speaks to its estrangement from the Academy, while its presence as private educational practice emphasises its separation from state-funded education. However, this is an ambivalent fluctuating relationship, not a binary one, constituting a 'third space' of hybrid activity. Accordingly, it is likely that aspects of bushcraft education will emerge in the dominant culture in various forms. One such example may be the rapid growth of Forest Schools since 1995 (Knight 2011, p. 1), often as an adjunct to mainstream state schooling, and literally extramural to it, provides one such example.

The emergence of Forest School education in the UK, expressed concerns about the effects of children's diminishing relationship with the natural world, which have been related to a rise in childhood obesity, and an increase in a range of emotional and behavioural disorders, such as attention deficit hyperactivity disorder (ADHD) mental illness, stress and impaired social skills, since studies have established links between the role of childhood experiences with nature and

children's physical and emotional health (Charles, Louv, Bodner, and Guns 2008; Bird 2007). Further studies, throughout the past decade, have reported that outdoor activity in nature can lower stress, increase self-worth, and improve symptoms of ADHD (Muñoz 2009; Bird 2007). For example, Bird (2007, p. 78) found that 'All children with ADHD may benefit from more time in contact with nature...'. Furthermore, following a study of sustainability education in schools in the UK, Ofsted recommended that schools should 'ensure that all pupils have access to out-of-classroom learning to support their understanding of the need to care for their environment and to promote their physical and mental well-being' (Ofsted 2009, p. 6). However, the studies suggest that it is not simply learning outside the classroom that benefits the health and well-being of children, but rather it is direct contact and creative play/activity in participation with nature that is required (Bragg and Atkins 2016; Kellert 2015: Charles, Louv, Bodner & Guns. 2008).

Extending this stream of enquiry, Richard Louv, in his highly influential book *Last Child in the Woods* (2005), coined the phrase 'nature deficit disorder' to describe the human costs of seperation from nature, which included contracted use of the senses, attention difficulties, and increases in emotional and physical disorders. While not referring to a medical condition, Louv proposed the term as a way to think about the problem. Louv's (2005) book inspired the 'No Child Left Inside' movement in the U.S, which called for the recognition of the importance of childhood participation in and with the natural world against a backdrop of alienating electronic detachment. What Louv (2005) argues for is unstructured, free and creative play that involves participation and the manipulation of natural materials. Pretty *et al* found that 'when children have free play in nature at a young age, it is likely to remain in adult life' (Pretty, Angus, Bain, Barton, Gladwell, Hine, Pilgrim, Sandercock and Sellens. 2009, p. 17). This assertion resonates with some of the questionnaire survey results in this enquiry, in which adult participants were asked 'Where/how did your interest [in bushcraft] begin?' (Appendix 1.2: Q27). In response, 50.6% made reference to childhood experiences; 23.9% mentioned a youth organisation (such as the Scouts); and 20.9% referred to growing up in natural areas, thus a total of 95.4% of survey respondants mentioned a childhood experience in the outdoors as an influence upon their desire to practice bushcraft. This shows that a significant proportion of

bushcraft practitioners became interested in nature as a child or youth, supporting Bird's findings that, 'an adult's attitude to the environment and time spent outdoors in green space is strongly influenced by their experience as a child' (2007, p. 10).

A similarly suggestive 'third space' may be provided by recent research on nature and health has not only focused on the health and learning of children, but also more widely on the mental and physical benefits to adults. From the physiological and therapeutic benefits of Japanese *Shinrin-yoku*, 'defined as making contact with and taking in the atmosphere of the forest', or otherwise known as 'forest bathing' (Park, Tsunetsugu, Kasetani, Kawaga, Mazaki. 2010, p. 18), to 'prescription parks' (Razini, Mead, Schudel, Johnson and Long 2015; Seltenrich 2015), and the recognition of nature in lowering peoples stress, restoring attention and increasing concentration (Berman, Jonides and Kaplan 2008; Kaplan 1995). This recent research builds on Kellert and Wilson's biophilia hypothesis, which asserted that humans have an inherent 'urge to affiliate with other forms of life' and are thus biologically primed to be drawn to the natural living world (Kellert and Wilson 1995, p. 461; Wilson 1984).

Many authors who write from both an ecological and social perspective connect 'alienation' from nature – whether in the Marxist sense or as a more general separation - with ecological crisis (Miller 2005). The suggestion, therefore, is that direct intimate encounters with nature are crucial for countering the negative effects of modernity on both human well-being, as well as ecological degradation, as a simultaneous movement with the one influencing, impacting and shaping the other. This has provoked a call for an alternative social and ethical paradigm (Miller 2005; Pyle 2003) which may reonate with aspects of bushcraft. In particular, bushcraft may provide one explanation of *how* this attachment might be made in everyday practice. At the same time, it is broadly recognised in outdoor education that responsiveness, sensitivity and/or empathy with nature in wild/natural 'places' are fundamental (Wattchow and Brown 2011), and that the literature of embodied craft knowledge and enskillment develops the individual (Marchand 2008). Bushcraft offers potential to conjoin these literatures in its fundamental relationship to 'bush' and 'craft'. However, in seeking an explanation concerning how to make an intimate relationship with nature, it is Indigenous peoples' attachment to land that is often evoked (Cohn 2011; Loynes

2002; Mathews 1999) which also resonates with bushcraft practice. However, in Western activity on the land, a 'working knowledge' of its affordances for living, which also generates an intimate relationship with nature (as the case studies in this thesis demonstrate), is rarely discussed. Future research might explore the role of bushcraft education in taking these kinds of discussions forward, for example, by providing a position from which to interrogate the views of eco-psychologists, deep ecologists and social ecologists, who, for example, all argue that modern life has led to a greatly decreased self-nature overlap, and that this fundamental change in our relationship to nature explains, at least in part, our slow response to the modern environmental crisis (Mayer and Frantz 2004).

This thesis has suggested that bushcraft is an activity that makes a series of unique demands on its practitioners. It demands an empathic relationality with place, an extension of self into landscape, and recognition of self as an ecological presence, as well as requiring individual competency, dexterity with hand tools and the skills and personal resilience of self-reliance. Meeting these demands transforms the values and ethics of utilitarian nature-relations, so that bushcraft's values become part of the person and are expressed in their actions, whether they are in remote wild landscapes or domestic 'back-yard' ones. Whilst bushcraft education exists as a commercial product, bushcraft itself operates as an inextricably intertwined ideology and practice. It seeks to articulate a set of values that arise from a deep, inter-subjective relationship with the natural world; to rediscover and reclaim the practices that enshrine those values; and to recognise the political discomforts and historical problematics associated with that and work with and within them. It acts as a radical refusal of alienating ideologies and discourses that emerge from the dominance of the Western cultures where it is situated. Thus, bushcraft is a personal transformative skilled relationship between practitioner and the natural world, which is arrived at through the development of understanding what the landscape affords to the human and also to non-human animal. This occurs through developing the skill to undertake creative activity that provides self-reliance in nature, and outside of the urban setting and ethos, yet the values and skills it inscribes on the practitioner are also applied in a domestic realm where it represents a 'tactic' in de Certeau's formulation (de Certeau 1984). Minimizing reliance upon technologies, where pragmatic to do so, bushcraft also incorporates and recognises the usefulness and benefit of key technologies, such

as the woodsman's axe, which can, with skilled technique, be used to carve out a life and facilitate a working knowledge of the land.

Reference List

de Abaitua, M. (2011). *The Art of Camping: The History and Practice of Sleeping Under the Stars*. London and New York: Hamish Hamilton.

Abram, D. (1996). *The Spell of the Sensuous: Perception and Language in a More-Than-Human World*. New York: Vintage Books.

Adams, W.M. (2003). Nature and the colonial mind. In: Adams, W. and Mulligan, M. ed. *Decolonising Nature: Strategies for Conservation in a Post-Colonial Era*. London: Earthscan, pp. 16–50.

Agrawal, A. (1995). Dismantling the divide between indigenous and scientific knowledge. *Development and Change* **26**(3):413–439.

Airlines War Training Institute (1943). *Survival - a Manual for Aircraft Crews Forced down in All Parts of the World*. Washington, DC: Airlines War Training Institute.

Alexander, C., Beale, N., Kesby, M., Kindon, S., Pain, R. and Kesby, M. (eds.) (2007). *Participatory Action Research Approaches and Methods: Connecting People, Participation and Place*. Alexander, C. et al. eds. London: Routledge.

Anasazi Foundation (2015). *The Anasazi Way.* [Online]. Available at: http://www.anasazi.org/ [Accessed: 4 December 2015].

Anon. (c.1921). *Life In The Woods, A Practical Manual of Instruction in the Art of Hunting, Trapping, and Fishing Including Gunning and Rifle Shooting. The Manufacture and Use of Traps, Snares, Nets, Baits, Etc., with Full Instructions for Preserving, Tanning, And Dyeing*. Chicago: Chicago Model Publishing.

Aristotle (1976). *The Ethics of Aristotle - The Nicomachean Ethics*. Translated by J. A. K. Thomson. Revised by Hugh Tredennick. London: Penguin Books. (Original work published c.330 B.C.).

Ashby, E. ed. (1972). *Pollution: Nuisance Or Nemesis?: A Report on the Control of Pollution. A Study*. London: HMSO (Her Majesty's Stationery Office).

Ashcroft, B., Griffiths, G. and Tiffin, H. (2000). *Post-Colonial Studies: The Key Concepts*. 1st ed. London: Routledge.

'Australia' (2007). *Ray Mears' Wild Food*. United Kingdom: Episode 1. [Television broadcast]. Created by Ray Mears. Directed by Ben Southwell. Presented by Ray Mears. UK: BBC2. 1 October.

Australian Army Education Service (c.1943). *Australian Bushcraft : WWII Bushcraft and Survival Handbook*. [Pamphlet]. Australia: The Australian Army.

Australian Army Education Service (1944). *Living Off The Land: a manual of bushcraft, compiled from articles contributed to 'Salt', the army education journal*. Melbourne: Robertson and Mullensy.

Axinn, W.G. and Pearce, L.D. (2006). *Mixed Method Data Collection Strategies*. New York: Cambridge University Press.

Baden-Powell, R. (1915). *My Adventures as a Spy*. London: C.Artthur Pearson, Ltd.

Baden-Powell, R.S.S. (1987). *The Matabele Campaign, 1896: Being a Narrative of the Campaign in Suppressing the Native Rising in Matabeleland and Mashonaland*. London: Methuen.

Balfour, H. (1907). The fire-piston. In: Rivers, W. H. R., Marett, R. R. and Thomas, N. W. eds. *Anthropological Essays Presented to Edward Burnett Tylor in Honour of His 75th Birthday Oct. 2, 1907*. Oxford: Clarendon Press, pp. 17–50.

Balfour, H. (1914). Frictional fire-making with a flexible sawing-thong. *The Journal of the Royal Anthropological Institute of Great Britain and Ireland* **44**:32–64.

Barck, Å. and Kihlberg, K. (1981). *Sami Sloyd*. Stockholm: LT.

Baring, A. and Cashford, J. (1991). *The Myth of the Goddess: Evolution of an Image*. London: Viking.

Bateman, J.A. (1979). *Trapping a Practical Guide*. Harrisburg, PA: Stackpole Books.

Bateson, G. (1972). *Steps to An Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology*. Chicago: University of Chicago Press.

Battiste, M.A. (2011). *Reclaiming Indigenous Voice and Vision*. Vancouver: University of British Columbia Press.

Battiste, M.A. and Henderson, J.Y. (2000). *Protecting Indigenous Knowledge and Heritage: A Global Challenge*. Saskatoon, SK: Purich Press.

Beard, D.C. (c.1920). *The Book of Camp-Lore and Woodcraft*. [Online]. Garden City, NY: Garden City Publishing Company. Available at: https://archive.org/details/bookofcamplorewo00bear [Accessed: 4 December 2015].

Becker, H. (1972). A school is a lousy place to learn anything. *American Behavioral Scientist* **16**:85–105.

Belk, R.W. and Costa, J.A. (1998). The mountain man myth: a contemporary consuming fantasy. *Journal of Consumer Research* **25**(3):218–240.

Bennett, J. (2010). *Vibrant Matter: A Political Ecology of Things*. Durham and London: Duke University Press.

Berg, Ø. (1993). *Boxes, Boxes and Cabinets from Craft to Craft*. Oslo.

Berkes, F. (2008). *Sacred Ecology: Traditional Ecological Knowledge and Resource Management*. 2nd ed. Philadelphia: Taylor and Francis.

Berman, M., Jonides, J. and Kaplan, S. (2008). The cognitive benefits of interacting with nature. *Psychological Science* **19**(12):1207–1212.

Berreman, G.D. (1966). Anemic and emetic analyses in social anthropology. *American Anthropologist* **68**(2):346–354.

Bhabha, H.K. (1994). *The Location of Culture*. London and New York: Routledge.

Bhabha, H.K. (2008). Notes on globalisation and ambivalence. In: Held, D., Moore, H. L. and Young, K. eds. *Cultural Politics in a Global Age: Uncertainty, Solidarity and Innovation*. Oxford: One World Publications, pp. 36–47.

'Birchbark Canoe' (2005). *Ray Mears' Bushcraft*. Season 2, episode 1. [Television broadcast]. Created by Ray Mears. Directed by Ben Southwell. Presented by Ray Mears. UK: BBC2. 21 April.

Bird, W. (2007). *Natural Thinking: Investigating the Links between the Natural Environment, Biodiversity and Mental Health*. Sandy, UK.

Bird-David, N. (1999). 'Animism' revisited: personhood, environment, and relational epistemology. *Current Anthropology* **40**(S1):S67–S91.

Bloom, L. (1993). *Gender on Ice: American Ideologies of Polar Expeditions*. Minneapolis, MN: University of Minnesota Press.

Boa *Elicited and Arranged by Mary Nixon Everett*. Garden City, NY: Doubleday, Page and Company.

Burnham, F.R. (1926). *Scouting on Two Continents: Elicited and Arranged by Mary Nixon Everett*. Garden City, NY: Doubleday, Page and Company.

Burrell, R.W. ed. (1968). *Bushcraft Manual*. Wellington, NZ: National Mountain Safety Council.

Bush Tucker Man (1987-1996). 3 seasons with 7-8 episodes each. [Television programme]. Presented by Les Hiddins. Australia: ABC TV.

Butterfield, C.W. (1881). *History of the Discovery of the Northwest by John Nicolet in 1634: With a Sketch of His Life*. Cincinnati: R. Clarke.

Cacutt, L. ed. (1993). *Survival*. London: Marshall Cavendish.

Cameron, J.M.R., McLaren, G. and Cooper, W. (1999). Bushmanship: the explorers' silent partner. *Australian Geographer* **30**(3):337–353.

Carson, R. (1962). *Silent Spring*. Greenwich, CT: Fawcett Publications.

Carter, H.L. and Spencer, M.C. (1975). Stereotypes of the mountain man. *The Western Historical Quarterly* **6**(1):17–32.

Cashford, J., trans. (2011). The myth of the messenger. *ARAS Connections.* [Online](3):1–20. Available at: http://aras.org/sites/default/files/docs/00047Cashford.pdf [Accessed: 3 December 2015].

Cashford, J.trans. (2003). *The Homeric Hymns*. London and New York: Penguin Books. (Original work is Greek epic C7th to 4th B.C.).

de Certeau, M. (1984). *The Practice of Everyday Life*. Berkeley, CA: University of California Press.

Charles, A.J. (1879). *Camp Life in the Wilderness. Boston*. Boston: A. Williams and Company.

Charles, C., Louv, R., Bodner, L. and Guns, B. (2008). Children and Nature 2008: A Report on the Movement to Reconnect Children to the Natural World. [Online]. Santa Fe, NM: Children and Nature Network. Available at: http://getoutdoorsflorida.com/documents/CNMovement.pdf [Accessed: 19 February 2016].

Chaucer, G. (1957). *The Canterbury Tales*. 2nd ed. Robinason, F. N. ed. London: Oxford University Press.

Clarke, P.A. (2013). The use and abuse of Aboriginal ecological knowledge. In: Clark, D. and Cahir, F. eds. *The Aboriginal Story of Burke and Wills: Forgotten Narratives*. Melbourne: CSIRO Publishing, pp. 61–79.

Cohn, I. (2011). Indigenous ways—fruits of our ancestors. *Journal of Adventure Education and Outdoor Learning* **11**(1):15–34.

Conover, G. and Conover, A. (2006). *Snow Walkers Companion: Winter Camping Skills for the North*. Wrenshall, MN: Stone Ridge Press.

Cooper, A. (2009). *Inventing the Indigenous: Local Knowledge and Natural History in Early Modern Europe*. Cambridge: Cambridge University press.

Cooper, J.F. (1826). *The Last of the Mohicans: A Narrative of 1757. In Three Volumes*. Vol. 1. London: John Miller, New Bridge Street.

Cooper, J.F. (1954). *The Leatherstocking Saga: Being Those Parts of The Deerslayer, the Last of the Mohicans, the Pathfinder, the Pioneers, and the Prairie Which Specially Pertain to Natty Bumppo, Otherwise Known as Pathfinder, Deerslayer, or Hawkeye*. New York: Pantheon Books.

Cooper, J.M. (1938). *Snares, Deadfalls, and Other Traps of the Northern Algonquians and Northern Athapaskans*. Anthropological Series No. 5. Washington, DC: Catholic University of America.

Costall, A. (2007). Bringing the body back to life: James Gibson's ecology of agency. In: Ziemke, T., Zlatev, J. and Frank, R. M. eds. *Body, Language and Mind*. Amsterdam: Mouton de Gruyter, pp. 55–83.

Cox, J. (1998). An introduction to Marx's theory of alienation. *International Socialism*(79):41–62.

Crosby, A.W. (1986). *Ecological Imperialism: The Ecological Expansion of Europe 1600-1900*. Cambridge, UK: University Press, Cambridge.

Cuneo, J.R. (1959). *Robert Rogers of the Rangers*. New York: Oxford University Press.

CyberTracker (2013). *CyberTracker Certificaton.* [Online]. Available at: http://www.cybertracker.org/tracking/evaluations [Accessed: 1 March 2016].

Dampier, W. (1697). *A New Voyage Round the World. The Journal of an English Buccaneer*. London [1697/1820/1999.].

Darwin, C. (1839). *Narrative of the Surveying Voyages of His Majesty's Ships Adventure and Beagle Between the Years 1826 and 1836, Describing Their Examination of the Southern Shores of South America, and the Beagle's Circumnavigation of the Globe.* [Online]. Vol. 3. Journal and Remarks. London: Henry Colburn. Available at: http://darwin-online.org.uk/ [Accessed: 5 September 2014].

Davidson, D.S. (1947). Fire-making in Australia. *American Anthropologist* **49**(3):426–437.

Defoe, D. (1719). *The Life and Strange Surprising Adventures of Robinson Crusoe*. London: W. Taylor.

Deleuze, G. and Guattari, F. (2004). *A Thousand Plateaus: Capitalism and Schizophrenia*. Translated by Brian Massumi. London: Continuum. (Originally published as Mille Plateaux, vol. 2 of Capitalisme et Schizophrénie, Paris: Minuit, 1980).

Denison, G.T. (1866). *Manual of Outpost Duties: With Instructions for the Defence of Detached Houses, Villages, Bridges, & c. for the Use of Volunteers*. Toronto: Rollo and Adam.

Derrida, J. (1981). *Positions*. Translated and annoted by Alan Bass. London: Athlone.

'Desert Island' (2000). *Extreme Survival*. Season 2, episode 6. [Television broadcast]. Created by Ray Mears. Directed by Dick Colthurst. Presented by Ray Mears. UK: BBC2. 11 May.

Devall, B. and Sessions, G. (1985). *Deep Ecology: Living as If Nature Mattered*. Salt Lake City: Peregrine Smith.

Dickens, P. (1996). *Reconstructing Nature: Alienation, Emancipation and the Division of Labor*. London and New York: Routledge.

Downey, G. (2007). Seeing without knowing, learning with the eyes: visuomotor 'knowing' and the plasticity of perception. In: Harris, M. ed. *Ways of Knowing: New Approaches in the Anthropology of Knowledge and Learning*. New York and Oxford: Berghahn Books, pp. 222–241.

Downey, G. (2010). ' Practice without theory ': a neuroanthropological perspective on embodied learning. *Journal of the Royal Anthropological Institute* **16**(s1):S22–S41.

Doyle, B. (2012). The apocalypse is masculine: masculinities in crisis in survivalist film. *Interactive Media E-Journal, Masculine/ Feminine.* [Online] **8**:1–19. Available at: http://sphinx.murdoch.edu.au/~20100408/nass_uat/issue8/pdf/IM8-masculine-feminine-article-02-doyle.pdf [Accessed: 6 June 2015].

Elbroch, M., Mwampamba, T. H., Santos, M. J., Zylberberg, M., Liebenberg, L., Minye, J., Mosser, C. and Reddy, E. (2011). The value, limitations, and challenges of employing local experts in conservation research. *Conservation Biology* **25**(6):1195–202.

Elkins, J. (2000). *What Painting Is: How to Think About Oil Painting, Using the Language of Alchemy*. New York: Routledge.

Ellen, R. (1986). What Black Elk left unsaid: on the illusory images of green primitivism. *Anthropology Today* **2**(6):8–12.

Ellen, R.F. (2004). From ethno-science to science, or 'what the indigenous knowledge debate tells us about how scientists define their project'. *Journal of Cognition and Culture* **4**(3-4):409–450.

Ellen, R.F. and Fischer, M.D. (2013). Introduction: on the concept of cultural transmission. In: Ellen, R. F., Lycett, J. L. and Johns, S. E. eds. *Understanding Cultural Transmission in Anthropology: A Critical Synthesis*. New York and Oxford: Berghan Books, pp. 1–54.

Ellen, R.F. and Harris, H. (2000). Introduction. In: Ellen, R. F., Parkes, P. and Bicker, A. eds. *Indigenous Environmental Knowledge and Its Transformations: Critical Anthropological Perspectives*. Amsterdam: Harwood Academic.

Elster, J. ed. (1986). *Karl Marx: A Reader*. Cambridge: Cambridge University Press.

Emery, A.R. (1997). *Guidelines for Environmental Assessment and Traditional Knowledge. A Report from the Centre of Traditional Knowledge to the World Council of Indigenous People*. Ottawa: Centre for Traditional Knowledge.

Emory, K.P. (1943). *South Sea Lore*. Honolulu, Hawaii: Bernice P. Bishop Museum.

Eraut, M. (1994). *Developing Professional Knowledge and Competence*. London: Falmer Press.

Eyre, E.J. (1845). *Journals of Expeditions of Discovery into Central Australia, and Overland from Adelaide to King George's Sound, in the Years 1840–1; Sent by the Colonists of South Australia, with the Sanction and Support of the Government: Including an Account of the Man*. Vol. 1 and 2. London: T. and W. Boone.

Farmer, R.J. (1992). Surfing: motivations, values, and culture. *Journal of Sport Behavior* **15**(3):241–257.

Fischer, E., Marek, F. and Foster, J.B. (1996). *How To Read Karl Marx*. New York: Monthly Review Press.

Foot, P. (1978). *Virtues and Vices and Other Essays in Moral Philosophy*. Oxford: Blackwell Publishers Ltd.

Ford, J. D., Smit, B., Wandel, J. and MacDonald, J. (2006). Vulnerability to climate change in Igloolik, Nunavut: what we can learn from the past and present. *Polar Record* **42**(2):127–138.

Forman, D. (1990). Becoming the forest in defense of itself. In: Plant, C. and Plant, J. eds. *Turtle Talk*. Santa Cruz, CA: New Society, pp. 58–65.

Foster, J.B. (2000). *Marx's Ecology: Materialism and Nature*. New York: New York University Press.

Foster, R.D. (1838). *The North American Indian Doctor, Or, Nature's Method of Curing and Preventing Disease according to the Indians*. [Online]. Canton,

OH: Smith and Bevin. Available at: http://collections.nlm.nih.gov/catalog/nlm:nlmuid-0215414-bk [Accessed: 4 December 2015].

Foucault, M. (1972). *The Archaeology of Knowledge*. New York: Pantheon Books.

Freeman, T.N. (1950). *Manual of Arctic Survival and Useful Eskimo Words*. Ottawa, Canada: Department of Agriculture, Science Service, Division of Entomology.

Freire, P. (1970). *Pedagogy of the Oppressed*. New York: Herder and Herder.

Furniss, E. (2005). Imagining the frontier: comparative perspectives from Canada and Australia. In: Rose, D. B. and Davis, R. eds. *Dislocating the Frontier: Essaying the Mystique of the Outback*. Canberra, Australia: Australian National University E Press, pp. 23–46.

Galton, F. (1855). *The Art of Travelling or Shifts and Contrivances Available in Wild Countries*. London: John Murray.

Gare, A. (2006). *Postmodernism and the Environmental Crisis*. 2nd ed. London and New York: Routledge.

Gibson, J.J. (1979). *The Ecological Approach to Visual Perception*. Boston: Houghton Mifflin.

Gibson, W.H. (1881). *Camp Life in the Woods and the Tricks of Trapping and Trap Making Containing Comprehensive Hints on Camp Shelter, Etc.* New York: Harper and Brothers.

Gladwin, T. (1964). *Culture and Logical Process. Explorations in Cultural Anthropology: Essays in Honor of George Peter Murdock*. New York: McGraw-Hill.

Gordon, D.M. and Krech, S. eds. (2012). *Indigenous Knowledge and the Environment in Africa and North America*. Athens, OH: Ohio University Press.

Grainger, D.H. (1967). *Don't Die in the Bundu.* 1st ed. Cape Town: Howard Timmins.

Graves, R.H. (c.1950). *The Ten Bushcraft Books*. Sydney, Australia: Dymock's Book Arcade.

Greenwood, D.A. (2013). What is outside of outdoor education? Becoming responsive to other places. *Educational Studies*(49):451–464.

Grenier, J. (2005). *The First Way of War: American War Making on the Frontier, 1607-1814*. Cambridge, MA: Cambridge University Press.

Grimm, J. (1835). *Deutsche Mythologie*. Dietrich: Göttingen.

Guha, R. (2000). *Environmentalism: A Global History*. New York: Longman.

Gwin'ich Elders (1997). *Nank'Kak Geenjit Gwich'in Gwinjik: Gwich'in Words about the Land*. Gwich'in renewable resource board.

Hallock, C. (1876). *Camp Life in Florida; a Handbook for Sportsmen and Settlers*. New York: Forest and stream publishing company.

Hannerz, U. (1987). The world in creolisation. *Africa* **57**(4):546–559.

Hannerz, U. (2002). *Flows, Boundaries and Hybrids: Keywords in Transnational Anthropology*. Oxford: Oxford University Press.

Happold, F.C. (1963). *Mysticism: A Study and an Anthology*. Harmondsworth, Middlesex: Penguin Books.

Harding, A.R. (1907). *Deadfalls and Snares*. St. Louis, MO: A. R. Harding Publishing Company.

Harding, A.R. (1923). *The Trapper's Handbook*. 1st ed. Columbus, OH: A. R. Harding Publishing Company.

Hardy, T. (1982). *The Woodlanders. New Wessex Edition.* 1st ed. London: Macmillan. (Original work published 1887).

Harper, A.P. (1945). *Camping and Bushcraft in New Zealand: For Beginners*. Wellington, NZ: A.H. and A.W. Reed.

Haskell, A.L. (1932). On carving. *New English Weekly*, 5 May, pp. 65–66.

Hearne, S. and Tyrell, J.B. (1911). *A Journey from Prince Of Wales' Fort in Hudson's Bay to the Northern Ocean in the Years 1769, 1770, 1771 and 1772*. Toronto: The Champlain Society.

Henderson, B. and Vikander, N. eds. (2007). *Nature First: Outdoor Life the Friluftsliv Way*. Toronto, Canada: Natural Heritage.

Hermans, H. J. M. (2015). Human Development in Today's Globalizing World: Implications for Self and Identity. In: Arnett Jenson, L., ed. *The Oxford Handbook of Human Development and Culture.* Oxford: Oxford University Press, 2015, pp. 28-42.

Higgins, P. and Nicol, R. (1998). A sense of place: a context for environmental outdoor education. In: Higgins, P. and Humberstone, B. eds. *Celebrating Diversity: Learning by Sharing Cultural Differences in Outdoor Education*. Buckinghamshire: European Institute for Outdoor Adventure Education, pp. 50–55.

Hoffman, B.B. (1892). *The Sloyd System of Woodworking*. [Online]. New York, Cincinnati and Chicago: American Book Company. Available at: https://archive.org/details/sloydsystemwood00salogoog [Accessed: 4 December 2015].

Home Office (1976). *Protect and Survive*. London: HMSO (Her Majesty's Stationery Office).

Hough, W. (1890). Aboriginal fire-making. *American Anthropologist* **3**(4):359–372.

Hough, W. (1892). *The Methods of Fire-Making*. Report of the National Museum for 1890. Washington, DC: The Smithsonian Institution.

Hough, W. (1916). The distribution of man in relation to the invention of fire-making methods. *American Anthropologist* **18**(2):257–263.

Hough, W. (1926). *Fire as an Agent in Human Culture*. Smithsonian Institution, Bulletin 139. Washington, DC: Government Printing Office.

Hough, W. (1928a). Fire-making apparatus in the United States National Museum. *Proceedings of the United States National Museum* **73**(14):1–72.

Hough, W. (1928b). *The Story of Fire*. Garden City, NY: Doubleday, Doran and Company.

Humphries, M. (2012). 'The eyes of an empire': the Legion of Frontiersmen, 1904–14. *Historical Research* **85**(227):133–158.

'In Arctic Footsteps' (2009). *Northern Wilderness*. Episode 4. [Television broadcast]. Created by Ray Mears. Presented by Ray Mears. UK: BBC2. 15 November.

Ingold, T. (1996). Situating action V: the history and evolution of bodily skills. *Ecological Psycology* **8**(2):171–182.

Ingold, T. (2000). *The Perception of the Environment: Essays in Livelihood, Dwelling and Skill*. London: Psychology Press.

Ingold, T. (2001). Beyond art and technology: the anthropology of skill. In: Schiffer, M. B. ed. *Anthropological Perspectives on Technology*. Albuquerque: University of New Mexico Press, pp. 17–31.

Ingold, T. (2010a). Bringing things to life: creative entanglements in a world of materials. *ESRC National Centre for Research Methods. Working Paper No. 15* **5**(10):1–15.

Ingold, T. (2010b). Footprints through the weather-world: walking, breathing, knowing. *Journal of the Royal Anthropological Institute* **16**(1):S121–S139.

Ingold, T. (2011). *Being Alive: Essays on Movement, Knowledge and Description*. Hoboken, NJ: Taylor and Francis.

Ingold, T. and Kurttila, T. (2000). Perceiving the environment in Finnish Lapland. *Body and Society* **6**(3-4):183–196.

Iromoto, G. (2015). *We Belong To It*. [Online]. [Film]. Presented by Ray Mears. Northwest Ontario: Ontario Tourism Marketing Partnership Corporation. Available at: http://www.gohiromoto.com/webelongtoit/ [Accessed: 1 December 2015].

Iromoto, G. (2016). *The Path of Grey Owl*. [Online]. [Film]. Presented by Ray Mears. Northwest Ontario: Ontario Tourism Marketing Partnership Corporation. Available at: http://www.gohiromoto.com/the-path-of-grey-owl/ [Accessed: 20 January 2016].

Irwin, J. (1973). Surfing: the natural history of an urban scene. *Journal of Contemporary Ethnography* **2**(2):131–160.

Irwin, J. (1977). *Scenes*. Beverly Hills, CA: Sage Publications Ltd.

Itkonen, T.I. (1948). *The Finnish Lapps until 1945: Part I [Suomen Lappalaiset Vuoteen 1945: Ensimmäinen Osa]*. 1st ed. Porvoo: WSOY.

Jaeger, E. (1942). *How to Camp Out If You're Bombed Out*. Buffalo: Buffalo Museum of Science.

Jervis, J. (1999). *Transgressing the Modern Explorations in the Western Experience of Otherness*. London: John Wiley and Sons.

Jordan, T.G. and Kaups, M. (1992). *The American Backwoods Frontier: An Ethical and Ecological Interpretation*. Baltimore: The John Hopkins University Press.

Kalshoven, P.T. (2012). *Crafting 'The Indian': Knowledge, Desire, and Play in Indianist Reenactment*. New York: Berghahn Books.

Kane, M.J. and Zink, R. (2004). Package adventure tours: markers in serious leisure careers. *Leisure Studies* **23**(4):329–345.

Kaplan, S. (1995). The restorative benefits of nature: toward an integrative framework. *Journal of Environmental Psychology* **15**: 169-182.

Karamat Wilderness Ways (2016). *'The More You Know, the Less You Carry'*. [Online]. [YouTube]. Presented by Mors Kochanski. Available at: https://youtu.be/XxIUI401zuU.

Kellert, S. (1997). *From Kinship to Mastery: Biophilia in Human Evolution and Development*. Washington, DC: Island Press.

Kellert, S.R. and Wilson, E.O. (1993). *The Biophilia Hypothesis*. Kellert, S. R. and Wilson, E. O. eds. Washington, DC: Island Press.

Kellert, S.R. and Wilson, E.O. (1995). *The Biophillia Hypothesis*. Washington, DC: Island Press.

Kellert, S.R. (2015). Reflects on children's experiences with nature. C*hildren and Nature Network Leadership Writing Series* [Online] 1(2). Available at : https://www.childrenandnature.org/wp-content/uploads/2015/04/LWS _ Vo l1_02.pdf [Accessed: 21 February 2016].

Kelly, A. V (2009). *The Curriculum: Theory and Practice*. 6th ed. London: Sage Publications Ltd.

Kelly, W.K. (1863). *Curiosities of Indo-European Tradition and Folk-Lore*. [Online]. London: Chapman and Hall. Available at: https://archive.org/details/cu31924029898487 [Accessed: 3 December 2015].

Kephart, H. (1906). *The Book of Camping and Woodcraft - a Guidebook for Those Who Travel in the Wilderness*. [Online]. London: The Outing Publishing Company. Available at: https://archive.org/details/bookofcampingwoo00keph [Accessed: 4 December 2015].

Kephart, H. (1921). *Camping and Woodcraft: A Handbook for Vacation Campers and for Travelers in the Wilderness*. [Online]. Vol. 2. New York: Macmillan. Available at: https://archive.org/details/campingwoodcraft00kephrich [Accessed: 4 December 2015].

Kerényi, K. (1976). *Hermes Guide of Souls: The Mythologem of the Masculine Source of Life*. Translated by Murray Stein Dallas. Zurich: Spring Publications.

Kjellberg, S.T. (1964). *Snifter Glass [Ölets Käril]*. Lund: Kulturen.

Kjellström, R. (2000). *The Life of the Sami [Samernas Liv]*. Stockholm: Carlssons.

Knight, S. (2011). *Forest School for All*. London: Sage Publications Ltd.

Knitis, J. (2007). *Winter Gear of Rogers Rangers.* [Online]. Available at: http://www.rogersrangers.com/pdf/senior/locked/Jerry_Knitis_locked.pdf [Accessed: 30 August 2015].

Kotcheff, T. (1982). *First Blood*. [Film]. USA: Orion Pictures Corporation.

Kroeber, A.L. (1948). *Anthropology: Race, Language, Culture, Psychology, Prehistory*. New York and Burlingame: Harcourt, Brace and World, Inc.

Kroeber, T. (1961). *Ishi in Two Worlds: A Biography of the Last Wild Indian in North America*. Berkeley, CA: University of California Press.

Kulonen, U.M., Seurujärvi-Kari, I. and Pulkkinen, R. eds. (2005). *The Saami: A Cultural Encyclopaedia*. Suomalaisen Kirjallisuuden Seura.

Latour, B. (1993). *We Have Never Been Modern*. Cambridge, MA: Harvard University Press.

Lave, J. (1991). Situating learning in communities of practice. In: Resnick, L., Levine, J. and Teasley, S. eds. *Perspectives on Socially Shared Cognition*. Washington, DC: American Psychological Association, pp. 63–82.

Lave, J. and Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.

Lee, J. and Ingold, T. (2006). Fieldwork on foot: perceiving, routing, socializing. In: Coleman, S. and Collins, P. eds. *Locating the Field: Space, Place and Context in Anthropology*. Palo Alto, CA: Ebrary, pp. 67–86.

Lefroy, J.H. (1862). *A Handbook for Field Service: Or, Field Pocket-Book*. 3rd ed. Noble, A. ed. Woolwich: Oxford University.

Lendy, A.F. (1857). *Elements of Fortification: Field and Permanent for the Use of Students Civilian and Military*. London: J. W. Parker and Son.

Leopold, A. (1925). Wilderness as a form of land use. *The Journal of Land and Public Utility Economics* **1**(4):398–404.

Leopold, A. (1949). *A Sand County Almanac, and Sketches Here and There*. New York: Oxford University Press.

Lévi-Strauss, C. (1962). *The Savage Mind*. Chicago, IL: The University of Chicago Press.

Li, V. (2006). *The Neo-Primitivist Turn: Critical Reflections on Alterity, Culture, and Modernity*. Toronto and London: University of Toronto Press.

Liebenberg, L. (1990). *The Art of Tracking, the Origin of Science*. Claremont, South Africa: David Philip Publishers Ltd.

Liebenberg, L. (2013). *The Origin of Science: The Evolutionary Roots of Scientific Reasoning and Its Implications for Citizen Science*. [Online]. Cape Town, South Africa: CyberTracker. Available at: http://www.cybertracker.org/downloads/tracking/Liebenberg-2013-The-Origin-of-Science.pdf [Accessed: 5 December 2015].

Lindsay, H.A. (1948). *The Bushman's Handbook : A Practical Guide for Finding Water, Snaring Game, Catching Fish, Camping and General Bushcraft*. Sydney: Angus and Robertson.

Lips, J. (1936). *Trap Systems Among The Montagnais-Naskapi Indians Of Labrador Peninsula*. Vol. 13. Stockholm: Statens Etnografiska Museum.

Lips, J. (1949). *The Origin of Things: A Cultural History of Man*. [Online]. London: George G.Harrap And Company Limited. Available at: https://archive.org/details/originofthings033228mbp [Accessed: 5 December 2015].

Lock, J.D. (2001). *To Fight with Intrepidity: The Complete History of the U.S. Army Rangers 1622 to Present*. 2nd ed. Tucson, AZ: Fenestra Books.

Lodge, D. (1982). Introduction to the woodlanders, New Wessex edition. In: *The Woodlanders. The New Wessex Edition*. 1st ed. London: Macmillan, pp. 13–32.

Lord, J.K. (1876). *At Home in the Wilderness: What to Do There and How to Do It. A Handbook for Travellers and Emigrants*. 3rd ed. London: Hardwicke and Bogue.

Lord, W.B. and Baines, T. (1868). *Shifts and Expedients of Camp Life, Travel, and Exploration*. London: Horace Cox.

Lord, W.B. and Baines, T. (1871). *Shifts and Expedients of Camp Life, Travel, and Exploration*. London: Horace Cox. (Original work published in 1868 in serial form).

Lord, W.B. and Baines, T. (1876). *Shifts and Expedients of Camp Life, Travels, and Exploration*. London: Horace Cox.

Louv, R. (2005). *Last Child in the Woods: Saving Our Kids from Nature Deficit Disorder*. Chapel Hill: Algonquin Books.

Lovelock, J. (1979). *Gaia: A New Look at Life on Earth*. New York: Oxford University Press.

Loynes, C. (1998). Adventure in a bun. *Journal of Experiential Education* (21):35–39.

Loynes, C. (2002). The generative paradigm. *Journal of Adventure Education and Outdoor Learning* **2**(2):113–125.

Loynes, C. (2007). Why outdoor learning should get real. In: Henderson, B. and Vikander, N. eds. *Nature First: Outdoor Life the Friluftsliv Way*. 1st ed. Ontario: Natural Heritage Books, pp. 257–275.

Loynes, C. (2008). Social reform, militarism, and other historical influences on the practices of outdoor education in youth work. *Other ways of learning*:75–99.

Lucas, T.J. (1878). *Camp Life and Sport in South Africa - Experiences of Kaffir Warfare with the Cape Mounted Rifles*. London: Chapman and Hall.

MacDonald, R. (1993). *Sons of the Empire*. Toronto and London: University of Toronto Press.

Malton, W.D. (1857). *Company and Battalion Drill Illustrated: In Strict Accordance with the New Field Exercise and Evolutions of Infantry*. 1st ed. London: W. Clowes and sons.

Marchand, T.H.J. (2008). Muscles, morals and mind: craft apprenticeship and the formation of person. *British Journal of Educational Studies* **56**(3):245–271.

Marchand, T.H.J. (2010). Making knowledge: explorations of the indissoluble relation between minds, bodies, and environment. *Journal of the Royal Anthropological Institute* **16**(S1):S1–S21.

Marvin, G. (2015). *The Art of Tracking: Engaging with Animal Traces*. [Lecture]. Lecture to the School of English, University of Kent, 1 April.

Marx, K. (1992). *Economic and Philosophical Manuscripts. From Early Writings*. Translated by Rodney Livingstone and Gregor Benton. New York: Penguin Books. (Original work published 1844).

Marx, K. (2007). *Capital: A Critique of Political Economy - The Process of Capitalist Production*. Vol. 1. Engels, F. ed. New York: Cosimo Classics (Originally published 1867).

Mason, O.T. (1900). Traps of the amerinds - a study in psychology and invention. *American Anthropologist* **2**(4):657–675.

Mathews, F. (1999). Becoming native: An ethos of countermodernity II. *Worldviews: Global Religions, Culture, and Ecology* **3**(3):243–271.

Maurial, M. (2002). Indigenous knowledge and schooling: a continuum between conflict and dialogue. In: Semali, L. M. ed. *What Is Indigenous Knowledge?: Voices from the Academy*. New York and Abingdon, Oxon: Routledge, pp. 59–77.

Mayer, F.S. and Frantz, C.M. (2004). The connectedness to nature scale: a measure of individuals' feeling in community with nature. *Journal of Environmental Psychology* **24**:503–515.

Mc Neill, J.R. (2000). *Something New Under The Sun: An Environmental History of the Twentieth Century*. London: Allen Lane.

McGoogan, K. (2002). *Fatal Passage: The True Story of John Rae, the Arctic Hero Time Forgot*. Toronto: HarperCollins publishers ltd.

McGregor, D. (2004). Traditional ecological knowledge and sustainable development: towards co-existence. In: Blaser, M., Feit, H. A. and McRae, G. eds. *In the Way of Development. Indigenous Peoples, Life Projects and Globalization*. London and New York: Zed Books, pp. 72–91.

McGregor, D. (2008). Linking traditional ecological knowledge and western science: Aboriginal perspectives from the 2000 SOLEC. *Canadian Journal of Native Studies* **28**(1):139–158.

McKusick, J. (2010). *Green Writing: Romanticism and Ecology*. 2nd ed. New York: Palgrave Macmillan.

McLaren, G. (1996). *Beyond Leichhardt: Bushcraft and the Exploration of Australia*. Fremantle: Fremantle Arts Centre Press.

McLaren, G. and Cooper, W. (1996). Aboriginal involvement in Australian exploration: the enduring myth. *Northern Perspective* **19**(2):32–40.

McLeod, J. (2000). *Beginning Postcolonialism*. Manchester and New York: Manchester University Press.

Mears, R. (1990). *The Survival Handbook*. Yeovil: Oxford Illustrated.

Mears, R. (2002). *Bushcraft: An Inspirational Guide to Surviving the Wilderness*. London: Hodder and Stoughton.

Mears, R. (2008). *Ray Mears Goes Walkabout*. London: Hodder and Stoughton.

Mears, R. (2010). *Northern Wilderness*. London: Hodder and Stoughton.

Mears, R. (2013). *My Outdoor Life*. London: Hodder and Stoughton.

Merleau-Ponty, M. (1996). *Sens et Non-Sens*. Paris: Gallimard.

Midgley, M. (2006). *Science and Poetry*. London: Routledge. (Original work published 2000).

Miller, G. (1979). *Mad Max*. [Film]. Australia: Village Roadshow Pictures.

Miller, J.R. (2005). Biodiversity conservation and the extinction of experience. *Trends in Ecology & Evolution* **20**(8):430–434.

Milsome, C. (1979). *The Book of the Cinema*. London: Artists House.

Milton, K. (2002). *Loving Nature: Towards an Ecology of Emotion*. London and New York: Psychology Press.

Minahan, J. (2012). *Ethnic Groups of South Asia and the Pacific: An Encyclopedia*. Santa Barbara, CA: Abc-clio.

Mission Survive (2015). 1 season of 6 episodes. [Television programme]. Presented by Edward 'Bear' Grylls. UK: ITV.

Mitchell, T.L. (1839). *Three Expeditions into the Interior of Eastern Australia with Descriptions of the Recently Explored Region of Australia Felix and the Present Colony of N.S.W., Eastern Australia*. [Online]. Vol. 1. London: T. and W. Boone. Available at: http://www2.isilo.com/library/12000/pg12928.htm [Accessed: 30 November 2015].

Moore, G.F. (1884). *Diary of Ten Years Eventful Life of an Early Settler in Western Australia : And Also a Descriptive Vocabulary of the Language of the Aborigines*. London: M. Walbrook.

Moore, H. and Wilkinson, A.G. (2002). *Henry Moore - Writings and Conversations*. Berkeley, CA: University of California Press.

Moorman (c.1906). *How to Trap and Snare. A Complete Manual for the Sportsman, Game Preserver, Gamekeeper, and Amateur on the Art of Taking Animals and Birds in Traps, Snares, and Nets, with Numerous Illustrations*. London: Offices of the 'Shooting times'.

Moran, E.F. (2009). *People and Nature: An Introduction to Human Ecological Relations*. Malden, MA: Blackwell.

Morrell, D. (1972). *First Blood*. London: Barrie and Jenkins.

Morris, B. (1970). Ernest Thompson Seton and the origins of the woodcraft movement. *Journal of Contemporary History* **5**(2):183–194.

Morris, B. (1996). *Ecology and Anarchism: Essays and Reviews on Contemporary Thought*. Malvern Wells: Images Publishing.

Morris, B. (2012). *Pioneers of Ecological Humanism*. Brighton, United Kingdom: Book Guild Publishing Ltd.

Muñoz, S.-A. (2009). *Children in the Outdoors: A Literature Review*. [Online]. Forres, Scotland: Sustainable Development Research Centre. Available at: http://www.ltl.org.uk/childhood/documents/Childrenintheoutdoorsliteraturereview_tcm4-597028.pdf [Accessed: 19 February 2016].

Murdoch, J. (1892). *Ethnological Results of the Point Barrow Expedition*. Ninth Annual Report to the Bureau of Ethnology. Washington, DC: Government Printing Office.

Nadasdy, P. (2004). *Hunters and Bureaucrats: Power, Knowledge, and Aboriginal-state Relations in the Southwest Yukon*. UBC Press.

Naess, A. (1989). *Ecology, Community, and Lifestyle: Outline of an Ecosophy*. Translated and revised by David Rothenberg. Cambridge: Cambridge University Press.

Neill, A. (2000). Buccaneer ethnography: nature, culture and nation in the journals of William Dampier. *Eighteenth-Century Studies* **33**(2):165–180.

Neisser, U. (1988). Five kinds of self-knowledge. *Philosophical Psychology* **1**(1):35–59.

Nelson, E.W. (1900). *The Eskimo about Bering Strait*. Washington, DC: Government Printing Office.

Nelson, R.K. (1973). *Hunters of the Northern Forest: Designs for Survival among Alaskan Kutchin*. Chicago, IL: University of Chicago Press.

Nelson, R.K. (1983). *Make Prayers to the Raven: A Koyukon View of the Northern Forest*. Chicago, IL: University of Chicago Press.

Nelson, R.K. (1986). *Hunters of the Northern Forest: Designs for Survival among the Alaskan Kutchin*. 2nd ed. Chicago, IL and London: University of Chicago Press.

Niblack, A.P. (1890). *The Coastal Indians of Southern Alaska and Northern British Columbia.* [Online]. Annual Reports of the Board of Regents Smithsonian Institution for the year ending June 30, 1888. Available at: alaskaweb.org/pdf/niblack_coastinds.pdf [Accessed: 3 December 2015].

Nicol, R. (2002). Outdoor education: research topic or universal value? Part One. *Journal of Adventure Education and Outdoor Learning* **2**(1):29–41.

Nobles, G. (1989). Breaking into the backcountry: new approaches to the early American frontier. 1750-1800. *William and Mary Quarterly* **46**(4):641–670.

Norman, D.A. (1988). *The Design of Everyday Things*. New York: Doubleday.

Nute, G.L. (1931). *The Voyageur*. St Paul: Minnesota Historical Society Press.

O'Brien, R.C. (1975). *Z for Zachariah*. New York: Atheneum.

OED Online (2015a). 'amateur, n.1.' In: *Oxford English Dictionary Online*. [Online]. Oxford: Oxford University Press. Available at: www.oed.com [Accessed: 1 December 2015].

OED Online (2015b). 'bundu, n.1.' In: *Oxford English Dictionary Online*. [Online]. Oxford: Oxford University Press. Available at: www.oed.com [Accessed: 1 December 2015].

OED Online (2015c). ‘bush, n.1.’ In: *Oxford English Dictionary Online*. [Online]. Oxford: Oxford University Press. Available at: www.oed.com [Accessed: 1 December 2015].

OED Online (2015d). ‘Jack of all trades, n.1.V’. In: *Oxford English Dictionary Online*. Oxford: Oxford University Press.

OED Online (2015e). ‘nous, n.1.’ In: *Oxford English Dictionary Online*. Oxford: Oxford University Press. Available at: www.oed.com [Accessed: 1 December 2015].

OED Online (2015f). ‘scout, n.1.’ In: *Oxford English Dictionary Online*. [online]. Oxford: Oxford University Press. Available at: www.oed.com [Accessed: 1 December 2015].

Ofsted (2009). *Education for Sustainable Development Improving Schools – Improving Lives*. [Online]. London: Office for Standards in Education, Children’s Services and Skills (OFSTED). Available at: http://www.schools.norfolk.gov.uk/view/NCC103946 [Accessed: 19 February 2016].

Olsen, L.D. (1967). *Outdoor Survival Skills*. Provo, UT: Brigham Young University Press.

Olsen, L.D. (1990). *Outdoor Survival Skills*. Chicago: Chicago Review Press.

Onstolenland (2013). *Essay: Decolonizing the ‘Primitive Skills’ Movement.* [Online]. Available at: https://onstolenland.wordpress.com/2013/03/19/summary-and-response-to-decolonizing-restorative-justice-by-denise-c-breton/ [Accessed: 19 August 2015].

Osgood, C. (1937). *The Ethnography of the Tanaina*. Yale University Publications in Anthropology No. 16. New Haven: Yale University Press.

Pallin, P. (1938). *Bush Walking and Camping: Paddy Pallin’s Handbook of Australian Bushcraft*. Sydney: Paddy Pallin.

Pálsson, G. (1991). *Coastal Economies, Cultural Accounts: Human Ecology and Icelandic Discourse*. Manchester and New York: Manchester University Press.

Pálsson, G. (1994). Enskilment at sea. *Man* **29**(4):901–927.

Pálsson, G. (1999). Technology, practical knowledge and ecological expertise. In: del Castillo, Á. M. ed. *Antropología de La Pesca. Debates En El Mediterráneo*. Murcia: Universidad de Murcia, pp. 23–31.

Pálsson, G. and Helgason, A. (1998). Schooling and skipperhood: the development of dexterity. *American Anthropologist* **100**(4):908–923.

Park, B.J. Tsunetsugu, Y,. Kasetani, T. Kawaga, T. Miyazaki, Y. (2010). The physiological effects of Shinrin-yoku (taking in the forest atmosphere or forest bathing): evidence from field experiments in 24 forests across Japan. *Environmental Health and Preventive Medicine* **15**(1):18–26.

PAST Skills Wilderness School (n.d.). *About.* [Online]. Available at: http://www.pastskills.com/about.html [Accessed: 9 August 2015].

Pavey, B.E. (2006). *The Forest School and Inclusion: A Project Evaluation*. [Online]. Available at: http://www.leeds.ac.uk/educol/documents/161165.htm [Accessed: 16 September 2015].

Pearce, T., Wright, H., Notaina, R., Kudlak, A., Smit, B., Ford, J. and Furgal, C. (2011). Transmission of environmental knowledge and land skills among Inuit men in Ulukhaktok, Northwest Territories, Canada. *Human Ecology* **39**(3):271–288.

Petersson, L. ed. (2011). *Sloyd Begins in the Woods [Slöjden Börjar I Skogen : Konsten Att Läse Ett Träd]*. Stockholm: Hemslöjdens Förlag.

Pfadenhauer, M. (2005). Ethnography of scenes. Towards a sociological life-world analysis of (post-traditional) community-building. *Forum: Qualitative Social Research.* [Online] **6**(3):art.43. Available at: http://www.qualitative-research.net/ [Accessed: 1 December 2015].

Platten, S. (2013). Plant exchange and social performance: implications for knowledge transfer in British allotments. In: Ellen, R., Lycett, S. J. and Johns, S. E. eds. *Understanding Cultural Transmission in Anthropology: A Critical Synthesis*. New York and Oxford: Berghahn Books, pp. 300–319.

Playdon, Z. (2011). A principled approach to practice: a practised approach to principles. In: Playdon, Z. and Josephy, A. eds. *Journeys in Postgraduate Medical Education*. London: Third Space Press, pp. 27–44.

Playdon, Z. (2015). Survive what? Bear Grylls, leadership, and the NHS. In: *Dangerous Currents: Risk and Regulation at the Interface of Medicine and the Arts, 23-25 June, 2015. Dartington Hall.*

Pocock, G.A. (2007). *Outrider of Empire: The Life and Adventures of Roger Pocock, 1865-1941*. Edmonton: The University of Alberta Press.

Pocock, R.S. ed. (1909). *The Frontiersman's Pocket-Book*. London: John Murray.

Polanyi, M. (1958). *Personal Knowledge: Towards a Post-Critical Philosophy*. Chicago: University of Chicago Press.

Pratt, M.L. (1992). *Imperial Eyes: Studies in Travel Writing and Transculturation*. 1st ed. London: Routledge.

Pratt, M.L. (2008). *Imperial Eyes: Travel Writing and Transculturation*. 2nd ed. London and New York: Routledge. (Original work published 1992).

Pretty, J., Angus, C., Bain, M., Barton, J., Gladwell, V., Hine, R., Pilgrim, S., Sandercock, S. and Sellens, M. (2009). *Nature, Childhood, Health and Life Pathways*. [Online]. University of Essex, UK: Interdisciplinary Centre for Environment and Society Occasional Paper 2009-02. Available at: http://www.hphpcentral.com/wp-content/uploads/2010/10/Nature-Childhood-and-Health-iCES-Occ-Paper-2009-2-FINAL.pdf [Accessed: 19 February 2016].

Puri, R.K. (2013). Transmitting Penan basketry knowledge and practice. In: Ellen, R., Lycett, S. J. and Johns, S. E. eds. *Understanding Cultural Transmission in Anthropology: A Critical Synthesis*. New York: Berghahn Books, pp. 266–299.

Pye, D. (1968). *The Nature and Art of Workmanship*. Cambridge: Cambridge University Press.

Pyle, R.M. (2003). Nature matrix: reconnecting people and nature. *Oryx* **37**(02):206–214.

Raj, K. (2007). *Relocating Modern Science: Circulation and the Construction of Knowledge in South Asia and Europe, 1650–1900*. New York: Palgrave Macmillan.

Ramson, W.S. (1966). *Australian English: An Historical Study of the Vocabulary, 1788-1898*. Canberra: Australian National University Press.

Ray Mears' Bushcraft (2004-2005). 2 seasons of 6 episodes. [Television programme]. Created by Ray Mears. Directed by Ben Southwell. Presented by Ray Mears. UK: BBC2.

Ray Mears' World of Survival (1997-1998). 1 seasons of 6 episodes. [Television programme]. Created by Ray Mears. Presented by Ray Mears. UK: BBC2.

Razini, N. Meade, K., Schudel, C., Johnson, C., Long, D. (2015). Healing through nature: a park-based health intervention for young people in Oakland, California. *Children, Youth and Environments* **25**(1):147–159.

Reynolds, H. (1990). *With the White People. The Crucial Role of Aborigines in the Exploration and Development of Australia*. Ringwood, Victoria: Penguin Books.

Reynolds, P.C. (1981). *On the Evolution of Human Behavior: The Argument from Animals to Men*. Berkeley, CA: University of California Press.

Richards, P. (1993). Cultivation: knowledge or performance? In: Hobart, M. ed. *An Anthropological Critique of Development: The Growth of Ignorance*. New York: Routledge, pp. 61–78.

Richter, M. and Dettloff, D. (2002). Experiments in Hide Brain-tanning with a Comparative Analysis of Stone and Bone Tools. *Electronic document, murphylibrary. uwlax. edu/digital/jur/2002/richterdettloff. pdf., accessed May*, *15*, p.2010.

Rickly-Boyd, J.M. (2012). Lifestyle climbing: toward existential authenticity. *Journal of Sport & Tourism* **17**(2):85–104.

Rickly-Boyd, J.M. (2013). Existential authenticity: place matters. *Tourism Geographies* **15**(4):680–686.

Ringer, M. (1999). The facile-itation of facilitation? Searching for competences in group work leadership. *Sicsco Conscientia* (2):1-9.

Rosenthal, M. (1980). Knights and retainers: the earliest version of Baden-Powell's boy scout scheme. *Journal of Contemporary History* **15**(4):603–617.

Royal Air Force (1942). *The Jungle Hiker*. 1st ed. Ceylon (Sri Lanka): Colombo Ceylon Observer Press.

Roycraft, T. and Kochanski, M.L. (1977). Friction method of firelighting: the bow and drill. *Wilderness Arts and Recreation Magazine* **1**(6):26–38.

Rubinstein, D. (2006). *Rubinstein Marx and Wittgenstein: Social Praxis and Social Explanation*. Abingdon, UK: Routledge & Kegan Paul (Originally published 1981).

Russell, C.P. (1967). *Firearms, Traps, and Tools of the Mountain Men*. New York: Alfred A. Knopf.

Rutherford, J. (1990). The third space. Interview with Homi Bhabha. In: Rutherford, J. ed. *Identity: Community, Culture, Difference*. London: Lawrence and Wishart, pp. 207–221.

Ruxton, G.F.A. (1847). *Adventures in Mexico and the Rocky Mountains*. Vol. 36. London: John Murray.

Ryan, S. (1996). *The Cartographic Eye: How Explorers Saw Australia*. Cambridge: Cambridge University Press.

Salazar, N.B. (2013). Imagineering otherness: anthropological legacies in contemporary tourism. *Anthropological Quarterly* **86**(3):669–696.

Sale, K. (1985). *Dwellers in the Land: The Bioregional Vision*. San Francisco: Sierra Club Books.

Schacht, R. (1971). *Alienation*. London: George Allen and Unwin.

Scoble, T.C. ed. (1868). *The Canadian Volunteer's Hand Book for Field Service*. Toronto: H. Rowsell.

Scott, D. (2015). *Alderleaf Wilderness College: Snares and Traps for Survival Trapping*. [Online]. Available at: http://www.wildernesscollege.com/snares-and-traps-for-survival-trapping.html [Accessed: 4 December 2015].

Scott, D.C. and Murphy, B. (2010). *The Scouting Party: Pioneering and Preservation, Progressivism and Preparedness in the Making of the Boy Scouts of America*. 1st ed. Irving, TX: Red Honor Press.

Selman, S.H. (c.1836). *The Indian Guide to Health*. [Online]. St. Louis, MO: J. H Stephens and J. C. Cory. Available at: https://archive.org/details/9107844.nlm.nih.gov [Accessed: 4 December 2015].

Seltenrich, N. (2015). Just what the doctor ordered: using parks to improve children's health. *Environmental Health Perspectives* **123**(10):A254.

Semali, L.M. and Kincheloe, J.L. (2002). *What Is Indigenous Knowledge?: Voices from the Academy*. New York: Falmer.

Sennett, R. (2008). *The Craftsman*. Allen Lane, London: Penguin Books.

Seth, S. (2009). Putting knowledge in its place: science, colonialism, and the postcolonial. *Postcolonial Studies* **12**(4):373–388.

Seton, E.T. (1904). How to make fire by rubbing sticks. *Country Life in America*:145, 146 & 204.

Seton, E.T. (1910). *Boy Scouts of America: A Handbook of Woodcraft, Scouting, and Life-Craft*. [Online]. New York: Doubleday, Page and Company. Available at: etsetoninstitute.org/.../Boy-Scouts-of-America-Original-Handbook-Seton-and-Baden-Powell-1.pdf [Accessed: 3 December 2015].

Seton, E.T. (1912a). *The Book of Woodcraft*. Garden City, NY: Doubleday, Page and Company.

Seton, E.T. (1912b). *The Book of Woodcraft and Indian Lore*. Garden City, NY: Doubleday, Page and Company.

Seton, E.T. (1958). *Animal Tracks and Hunter Signs*. London: Doubleday.

Shryrock, A. and Smail, D.L. eds. (2011). *Deep History: The Architecture of Past and Present*. Berkeley, CA: University of California Press.

Simpson, J.H. (1876). *Report of Explorations across the Great Basin of the Territory of Utah for a Direct Wagon-Route from Camp Floyd to Genoa, in Carson Valley, in 1859, by Captain J. H. Simpson*. [Online]. Washington, DC: Government Printing Office. Available at: https://archive.org/details/reportofexplorat00simp [Accessed: 3 December 2015].

Skinner, B.F. (1948). *Walden Two*. Indianapolics: Hackett.

Skolimowski, H. (1981). *Eco-Philosophy: Designing New Tactics for Living*. London: Marion Boyars.

Slater, S. (2014). Fur traders, voyageurs, and coureurs des bois: economic masculinities in French Canadian fur trade society, 1635-1754. *Masculinities* **1**:92–119.

Slattery, D. (2004). If Burke had been a naturalist…: telling and retelling national narratives. *Australian Journal of Outdoor Education* **8**(2):13–22.

Smith, P. (1812). *The Indian Doctor's Dispensary, Being Father Peter Smith's Advice Respecting Diseases and Their Cure; Consisting of Prescriptions for Many Complaints: And a Description of Medicines, Simple and Compounds, Showing Their Virtues and How to Apply Them*. Cincinnati, OH: Browne and Looker.

Snape, J. (2015). *Bear Grylls: 'I'm 40, and Fitter than I've Ever Been'*. [Online]. Available at: http://www.telegraph.co.uk/men/active/11600282/Bear-Grylls-Im-40-and-fitter-than-Ive-ever-been.html [Accessed: 1 December 2015].

Sorensen, A., Roebroeks, W. and van Gijn, A. (2014). Fire production in the deep past? The expedient strike-a-light model. *Journal of Archaeological Science* **42**(1):476–486.

Spring, J.H. (1975). *A Primer of Libertarian Education*. Montreal: Black Rose Books.

Stanley, L. (1990). Feminist praxis and the academic mode of production. In: Stanley, L. ed. *Feminist Praxis*. London: Routledge.

Stebbins, R.A. (1982). Serious leisure: a conceptual statement. *The Pacific Sociological Review* **25**(2):251–272.

Stebbins, R.A. (1992). *Amateurs, Professionals, and Serious Leisure*. Montreal, PQ and Kingston, ON: McGill-Queen's University Press.

Stebbins, R.A. (1999). Educating for serious leisure: leisure education in theory and practice. *World Leisure and Recreation* **41**(4):14–19.

Stefánsson, V. (1944). *Arctic Manual*. New York: Macmillan.

Steiner, M. (1995). From Frontier to Region: Frederick Jackson Turner and the new Western History. *The Pacific Historical Review* **64**(4):479–501.

Stephens, G. (1934). *Trapping Tips for Rural Trappers: Practical Suggestions to the Part-Time Trapper Who Wishes to Make His Traps Pay Bigger Dividends*. Curwensville, Pennsylvania: F.P. Robinson.

Steward, J.H. (1938). *Basin-Plateau Aboriginal Sociopolitical Groups*. Bureau of American Ethnology, Bulletin 120. Washington, DC: Government Printing Office.

Stowe, D. (2004). Educational Sloyd: the early roots of manual training. *Woodwork.* [Online], August, pp. 66–71. Available at: dougstowe.com/educator_resources/w88sloyd.pdf [Accessed: 2 December 2015].

Sundqvist, J. (2013). I'm not uncrafty - A craftsman definition of art: Jögge Sundqvist at TEDxUmea. TED talks. [Online]. Available at: http://tedxtalks.ted.com/video/Im-not-uncrafty-A-craftsman-def;TEDxUmea [Accessed: 8 August 2014].

Sundqvist, W. (1990). *Swedish Carving Techniques*. Newtown, CT: Taunton Press.

Survival Sam (2007). *Perry McGee's National Tracking School: History* [Online]. Available at: http://www.nationaltrackingschool.com/history.html [Accessed: 19 February 2016].

'Sweden' (2005). *Ray Mears' Bushcraft*. Season 2, episode 4. [Television broadcast]. Created by Ray Mears. Directed by Ben Southwell. Presented by Ray Mears. UK: BBC2. 12 May.

Tarnas, R. (1991). *Passion of the Western Mind: Understanding the Ideas That Have Shaped Our World-View*. London: Pimlico, Random House.

Taylor, B. (2001a). Earth and nature-based spirituality (part I): from deep ecology to radical environmentalism. *Religion* **31**(2):175–193.

Taylor, B. (2001b). Earth and nature-based spirituality (part II): from Earth First! and bioregionalism to scientific paganism and the New Age. *Religion* **31**(3):225–245.

Taylor, B. (2010). *Dark Green Religion: Nature, Spirituality, and the Planetary Future*. Berkeley, CA: University of California Press.

Taylor, G.R. (1970). *The Doomsday Book*. London: Panther Books.

'The Arctic' (1997). *Ray Mears' World of Survival*. Season 1, episode 1. [Television broadcast]. Created by Ray Mears. Presented by Ray Mears. UK: BBC2. 24 February.

‘The Forgotten Forest’ (2009). *Northern Wilderness*. Episode 1. [Television broadcast]. Created by Ray Mears. Presented by Ray Mears. UK: BBC2. 25 October.

‘The Unknown Pioneer’ (2009). *Northern Wilderness*. Episode 3. [Television broadcast]. Created by Ray Mears. Presented by Ray Mears. UK: BBC2. 8 November.

The Wanderer (1867). *At Home in the Wilderness: Being Full Instructions How to Get Along, and to Surmount All Difficulties by the Way*. London: R. Hardwicke.

Theodossopoulos, D. (2013). Laying claim to authenticity: five anthropological dilemmas. *Anthropological Quarterly* **86**(2):337–360.

Thomas, K. (1983). *Man and the Natural World: Changing Attitudes in England 1500-1800*. London: Penguin Books.

Thomas, N. (1994). *Colonialism’s Culture: Anthropology, Travel and Government*. Cambridge: Polity Press.

Thompson, C. (2011). *Travel Writing*. London and New York: Routledge.

Thompson, R. (1924). *The Wilderness Trapper: A Practical Handbook by a Practical Trapper with Extensive Experience in the Wilds of Western Canada*. 6th ed. Columbus, OH: The Hunter-Trader-Trapper Company.

Thompson, R. (1946). *Snares and Snaring*. Toronto, ON: Fur Trade Journal of Canada.

Thorbjörnsson, H. (2006). Swedish educational sloyd – an international success. *Tidskrift för lärarutbildning och forskning* **13**(2-3):10–33.

Todish, T.J. ed. (2002). *The Annotated and Illustrated Journals of Major Robert Rogers*. Fleischmanns, NY: Purple Mountain Press Ltd.

Tom Brown Jr.’s Tracker School (2015). *Home.* [Online]. Available at: https://www.trackerschool.com [Accessed: 3 August 2014].

Tom Brown Jr’s Tracker School (2015). *About Grandfather.* [Online]. Available at: https://www.trackerschool.com/about/about-grandfather [Accessed: 3 August 2014].

Tompsett, I. (2014). *Handmade of Wood: Kuksa.* [Online]. Available at: https://sites.google.com/site/handmadeofwood/kuksa [Accessed: 3 August 2014].

Tribe (2005-2007). 3 seasons of 6 episodes. [Television programme]. Presented by Bruce Parry. UK: BBC2.

Truth and Reconciliation Commission of Canada. (2015). *Honouring the truth, reconciling for the future: Summary of the final report of the Truth and Reconciliation Commission of Canada*.

Turnbull, D. (1989). *Maps Are Territories Science Is an Atlas*. Geelong: Deakin University Press.

Turnbull, P. (2000). Learning to understand: Western and Indigenous sciences. *Humanities Research* **1**:7–20.

Turner, F.J. (1921). *The Frontier in American History*. New York: Henry Holt and Company.

Turner, J.M. (2002). From woodcraft to 'leave no trace': wilderness, consumerism, and environmentalism in twentieth-century America. *Environmental History* **7**(3):462–484.

Tylor, E.B. (1865). *Researches into the Early History of Mankind and the Development of Civilization*. London: John Murray.

Tylor, E.B. (1870). *Researches into the Early History of Mankind and the Development of Civilization*. London: John Murray.

Underhill, E. (1911). *Mysticism*. London: Methuen.

United States Navy (1943). *How to Survive on Land and Sea: Individual Survival*. 1st ed. Annapolis, MD: United States Naval Institute.

Unruh, D.R. (1979). Characteristics and types of participation in social worlds. *Symbolic Interaction* **2**(2):115–130.

Unruh, D.R. (1980). The nature of social worlds. *Sociological Perspectives* **23**(3):271–296.

US War Department (1941). *Basic Field Manual, Jungle Warfare*. FM 31-20. Washington, DC: Government Printing Office.

van Wyke, P. (2003). Burnham: King of Scouts, Baden-Powell's Secret Mentor. *Victoria, BC: Trafford*.

Victor, F.F. (1870). *The River of the West: Life and Adventure in the Rocky Mountains and Oregon*. [Online]. Newark, NJ: R.W. Bliss and Company. Available at: http://babel.hathitrust.org/cgi/pt?id=uc1.31175035187098;view=1up;seq=9 [Accessed: 30 November 2015].

Vogel, S. (2012). Alienation and the commons. In: Thompson, A. and Bendik-Keymer, J. ed. *Ethical Adaptation to Climate Change: Human Virtues of the*

Future. Cambridge, MA and London: Thompson, A. and Bendik-Keymer, J. eds, pp. 299–315.

Ward, B. and Dubos, R. (1972). *Only One Earth: The Care and Maintenance of a Small Planet*. NewYork and London: W.W. Norton and Company.

Watson, J. (1890). *Nature and Woodcraft*. London: W. Smith and Innes.

Watson, J.W. (1976). Review. Topophilia: A Study of Environmental Perception, Attitudes and Values. *The Geographical Journal* **142**(2):330–331.

Watson, W.N. (1939). Methods of fire making used by early man. *Journal of Chemical Education* **16**(1):36–45.

Wattchow, B. and Brown, M. (2011). *A Pedagogy of Place: Outdoor Education for a Changing World*. Victoria: Monash University Publishing.

Webb, L.A. (2012). On biomedicine, transfers of knowledge, and malaria treatments in eastern North America and tropical Africa. In: Gordon, M. D. and Krech, S. eds. *Indigenous Knowledge and the Environment in Africa and North America*. Athens, OH: Ohio University Press, pp. 53–68.

Went, J.D. (1998). *Rogers' Rangers and Irregular Colonial Warfare in the Seven Years' War*. AFIT-98-027. Air force inst of tech wright-pattersonafb oh.

Wescott, D. ed. (1999). *Primitive Technology A Book of Earth Skills*. Layton, UT: Gibbs Smith Publishers.

Wescott, D. (2000a). *Camping in the Old Style*. 1st ed. Salt Lake City: Gibbs Smith Publishers.

Wescott, D. ed. (2000b). *Historical and Technological Developments during the Golden Age of Camping 1890-1930*. Previously published in 'Camping in the Old Style' [pdf obtained from the author].

Wheat, M.M. (1967). *Survival Arts of the Primitive Paiutes*. Reno, NV: University of Nevada Press.

White, R. (1991). *The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650-1815*. New York: Cambridge University Press.

Wild Bushcraft Company (2016). *Whole of the Deer.* [Online]. Available at: http://wildbushcraft.co.uk/courses/5/ [Accessed: 4 January 2016].

Wilderness Survival Skills (2016). *Deer In a Day.* [Online]. Available at: http://www.wilderness-survival.co.uk/deer-in-a-day [Accessed: 5 December 2015].

Willerslev, R. (2004). Spirits as 'ready to hand': a phenomenological analysis of Yukaghir spiritual knowledge and dreaming. *Anthropological Theory* **4**(4):395–418.

Willerslev, R. (2008). Soul hunters: hunting, animism, and personhood among the Siberian Yukaghirs. *American Ethnologist* **35**(4):4086–4089.

Willerslev, R. (2012). *On the Run in Siberia*. Minneapolis, MN, London: University of Minnesota Press.

Wilson, E.O. (1984). *Biophilia*. Cambridge, MA: Harvard University Press.

Wiseman, J. 'Lofty' (1986). *The SAS Survival Handbook*. London: Collins Harvill.

Witzling, M.R. (1991). *Voicing Our Visions: Writings by Women Artists*. New York: Universe Publishing.

Wontolla (c.1941). *How to Live in Jungle and Bush*. Sydney: F. H. Johnson publishing company.

Woodlore Ltd (2015). *Woodlore Specialist Instructors: Lars Fält.* [Online]. Available at: http://www.raymears.com/Bushcraft_Courses/Specialist_Instructors.cfm#_ [Accessed: 29 September 2015].

Yin, R.K. (1994). *Case Study Research: Designs and Methods*. 2nd ed. Applied Social Research Methods Series. London: Sage Publications Ltd.

Zerzan, J. (2005). *Against Civilisation: Readings and Reflections*. Los Angeles: Feral House.

Appendices

Appendix 1. The general bushcraft survey (GBS)

A questionnaire using Survey Monkey was run for a period of approximately 3 months from mid-May to late August. The social media platform Facebook was used to elicit responses, and also online forums.

The questionnaire was circulated by being placed on websites and with online groups known to be frequented by Bushcraft practitioners. Because many of those practitioners were familiar with my work and my bushcraft organisation, Woodsmoke, both were identified in the questionnaire, to provide an atmosphere of trust and confidence and thereby encourage respondents to supply full and accurate responses.

A1.1 Questionnaire design

BUSHCRAFT QUESTIONNAIRE SURVEY for PhD Ethnobiology Research

About the PhD Research and the Survey

Thank you for your interest and participation in the first ever global 'Bushcraft' survey!

The information collected here will be used by Lisa Fenton as part of an Ethnobiology PhD research project, conducted through the School of Anthropology and Conservation at Kent University. Lisa Fenton is also the co-founder of Woodsmoke School of Bushcraft (www.woodsmoke.uk.com). This academic research is funded by the Economic and Social Research Council (ESRC). The questionnaire needs to be completed and returned by the 9th August 2013.

The aim of this research is to investigate the relationship between Bushcraft and Indigenous Knowledge, broadly. However, the more specific aim of this questionnaire is to establish some base-line data concerning who, what, when, where and how, with respect to bushcraft practice, globally.

This questionnaire is aimed at ANYONE involved in bushcraft, regardless of whether you are a Bushcraft fanatic, professional, hobbyist or arm-chair enthusiast; the broader the spectrum of response, the better, as long as you have an interest in bushcraft and its practices.

The questionnaire is reasonably involved with 43 questions to answer over 6 sections, however most questions are simple statements that you will be asked to tick or score a box. It should take you around 30 minutes to complete.

ALL information entered here is subject to strict ethical guidelines and privacy. Your anonymity will be protected at all times, and the data you enter is also protected by the 'data protection act'. However, the depersonalised statistical results of this questionnaire will be made publically available upon request (lf97@kent.ac.uk), and/or announced via Woodsmoke Newsletter/Facebook page.

To contact Lisa directly, please email lf97@kent.ac.uk

*1. I have read and understood the purposes of this research, and I give my consent to use the responses I provide for academic purposes only.

○ YES

BUSHCRAFT QUESTIONNAIRE SURVEY for PhD Ethnobiology Research

Background/Demographic Data

This section is to enable the researcher to build a picture of the demographic that has become interested in Bushcraft. This information is protected by the data protection act and you may skip any questions that give away your identity, such as your name and email address...or are not applicable.

2. Profile Information

Name (optional):

First part of postcode (UK/Europe)

What is your Occupation

Email (optional)

Phone number (optional)

3. What is your age?

☐ 18 to 24

☐ 25 to 34

- [ ] 35 to 44
- [ ] 45 to 54
- [ ] 55 to 64
- [ ] 65 to 74
- [ ] 75 or older

4. Are you male or female?

- ◯ Male
- ◯ Female

5. Please tell me of your main hobbies and/or interests, other than Bushcraft.

6. Is there anything about your background/experience you feel would be relevant to add?

BUSHCRAFT QUESTIONNAIRE SURVEY for PhD Ethnobiology Research

SECTION 1: Motivations for Bushcraft practice

* 7. Please rate the following statements in terms of how much you agree/disagree with them.

Practicing Bushcraft…

	Strongly disagree	Mostly disagree	Ambivalent	Mostly agree	Strongly agree
1. Develops a relationship between yourself and the natural world	☐	☐	☐	☐	☐
2. Enables you to see the natural world through native eyes	☐	☐	☐	☐	☐
3. Enables you to 'carry less, by knowing more'	☐	☐	☐	☐	☐
4. Increases self-reliance in Nature	☐	☐	☐	☐	☐
5. Allows you to feel more freedom from main stream society	☐	☐	☐	☐	☐
6. Is of benefit to a persons mental health	☐	☐	☐	☐	☐
7. Is of benefit to a persons physical health	☐	☐	☐	☐	☐
8. Develops social bonds and a community sensibility	☐	☐	☐	☐	☐
9. Develops mental and physical independence	☐	☐	☐	☐	☐
10. Develops self-responsibility	☐	☐	☐	☐	☐
11. Keeps alive traditional living skills for future generations	☐	☐	☐	☐	☐

* 8. Survival/Self-sufficiency: Please rate the following statements in terms of their importance to you My reasons/motivations for engaging with bushcraft practice are…

	No importance	Slightly important	Moderately Important	Very Important	Extremely Important
1. To increase my self sufficiency in natural/ wilderness places	☐	☐	☐	☐	☐
2. To increase my ability to survive outside of civilization	☐	☐	☐	☐	☐
3. To feel more prepared in case of social collapse	☐	☐	☐	☐	☐

4. To feel more prepared in case of environmental disaster	☐	☐	☐	☐	☐
5. To take care of myself and my family in times of need	☐	☐	☐	☐	☐

9. Wilderness Proficiency: My reasons/motivations for engaging with bushcraft practice are…

	No importance	Slightly important	Moderately Important	Very Important	Extremely Important
1. To enhance my ability to overcome the harsh realities of what Nature/ wilderness may throw at me	☐	☐	☐	☐	☐
2. To master the wilderness and feel in control when in wild places	☐	☐	☐	☐	☐
3. To gain access to remote wild places	☐	☐	☐	☐	☐

10. Connection to Nature: My reasons/motivations for engaging with bushcraft practice are…

	No importance	Slightly important	Moderately Important	Very Important	Extremely Important
1. To feel more deeply connected to the natural world	☐	☐	☐	☐	☐
2. To develop a spiritual connection with Nature	☐	☐	☐	☐	☐
3. To understand and experience Nature in a more direct, hands on way	☐	☐	☐	☐	☐
4. To enrich and inform my experience of being in Nature	☐	☐	☐	☐	☐

11. Connection to others: My reasons/motivations for engaging with bushcraft practice are…

	No importance	Slightly important	Moderately Important	Very Important	Extremely Important
1. To share experiences in nature with friends	☐	☐	☐	☐	☐
2. To share experiences in nature with family	☐	☐	☐	☐	☐
3. To sit around a campfire with others	☐	☐	☐	☐	☐
4. To enjoy the feelings of sharing tasks and looking after for one another in nature	☐	☐	☐	☐	☐

5. To create bonds with others in way that doesn't happen in 'normal' life	☐	☐	☐	☐	☐
6. To strengthen existing bonds with family and friends	☐	☐	☐	☐	☐
7. To pass on and share skill and knowledge directly to my children	☐	☐	☐	☐	☐

12. Connection to Heritage/Tradition: My reasons/motivations for engaging with bushcraft practice are…

	No importance	Slightly important	Moderately Important	Very Important	Extremely Important
1. To feel connected to a past human ancestry/ heritage	☐	☐	☐	☐	☐
2. To learn skills for historical interest – to experience how it might have felt in other times/ epochs	☐	☐	☐	☐	☐
3. To keep alive knowledge and skill of how humans can live in Nature	☐	☐	☐	☐	☐

13. Skill and learning: My reasons/motivations for engaging with bushcraft practice are…

	No importance	Slightly important	Moderately Important	Very Important	Extremely Important
1. To learn basic manual, practical skills that support human life	☐	☐	☐	☐	☐
2. To learn practical, manual skills that enhance my physical abilities	☐	☐	☐	☐	☐
3. To learn practical manual skills that I find therapeutic or interesting as a hobby	☐	☐	☐	☐	☐
4. To be able to 'do' more for myself	☐	☐	☐	☐	☐
5. To learn new skills that can enrich connection with Nature from home and in my daily life	☐	☐	☐	☐	☐

BUSHCRAFT QUESTIONNAIRE SURVEY for PhD Ethnobiology Research

SECTION 2: Bushcraft in Practice

14. Which of the following terms best describes what it is that you practice?

- [ ] 1. Primitive Technology
- [ ] 2. Living History
- [ ] 3. Experimental/ experiential Archeology
- [ ] 4. Military Survival
- [ ] 5. Wilderness Survival
- [ ] 6. Bushcraft
- [ ] 7. Wilderness Living Skills
- [ ] 8. Wild Camping
- [ ] 9. Classic Camping
- [ ] 10. Woodcraft
- [ ] 11. Earth Skills
- [ ] 12. Ancestral Skills
- [ ] 13. Native/ Aboriginal Living Skills
- [ ] 14. Traditional Indigenous Skills

Other (please specify)

15. Please list the skills you consider to be most important to bushcraft practice

16. Which of these three would you consider most iconic or best represents what bushcraft is?

17. Which bushcraft skills/knowledge do you most commonly find yourself practicing?

18. In what context do you most commonly practice bushcraft skill and knowledge?

	Never	Not often	Sometimes	Quite often	Very often

1. By attending a commercial course/ expedition	☐	☐	☐	☐	☐
2. By undertaking a personal journey	☐	☐	☐	☐	☐
3. In a static base-camp	☐	☐	☐	☐	☐
4. While camping	☐	☐	☐	☐	☐
5. In your backyard/ garden	☐	☐	☐	☐	☐
6. Inside your house	☐	☐	☐	☐	☐
7. Going for local walks/ excursions	☐	☐	☐	☐	☐
8. At non commercial meets and gatherings	☐	☐	☐	☐	☐
9. During commercial meets, shows and events	☐	☐	☐	☐	☐

Other (please specify)

19. Do you practice bushcraft...

	Never	Not often	Sometimes	Quite often	Very often
1. Alone	☐	☐	☐	☐	☐
2. With friends	☐	☐	☐	☐	☐
3. With family	☐	☐	☐	☐	☐

Other (please specify)

20. In what type of environment do you practice bushcraft skill and knowledge?

	Never	Not often	Sometimes	Quite often	Very often
1. Small woodland copses	☐	☐	☐	☐	☐
2. Larger forested area	☐	☐	☐	☐	☐
3. Parks	☐	☐	☐	☐	☐
4. Recreational spaces ie golf course	☐	☐	☐	☐	☐
5. Mountainous	☐	☐	☐	☐	☐
6. Moorland	☐	☐	☐	☐	☐
7. Coastal and beach	☐	☐	☐	☐	☐
8. Riverine	☐	☐	☐	☐	☐
9. Desert/ arid	☐	☐	☐	☐	☐

10. Tropical	☐	☐	☐	☐	☐
11. Winter/arctic	☐	☐	☐	☐	☐

Other (please specify)

21. Are the places that you utilise considered to be...

- ☐ 1. Public
- ☐ 2. Privately owned
- ☐ 3. Common land
- ☐ 4. National Parks
- ☐ 5. Wilderness
- ☐ 6. Urban
- ☐ 7. Suburban
- ☐ 8. Semi-rural
- ☐ 9. Rural

Other (please specify)

22. How frequently would you say you practice bushcraft?

- ☐ 1. On a daily basis
- ☐ 2. Weekly
- ☐ 3. Monthly
- ☐ 4. A few times a year
- ☐ 5. Yearly or longer
- ☐ 6. Sporadically

Other (please specify)

23. For what purpose do you practice bushcraft?

24. Are there ways in which bushcraft has influenced or entered your daily domestic life?

25. When, where and in what ways to you APPLY bushcraft? Please comment

BUSHCRAFT QUESTIONNAIRE SURVEY for PhD Ethnobiology Research

SECTION 3: Learning bushcraft

26. For how long have you been involved in practicing bushcraft?

27. Where/how did your interest begin?

28. How important have the following sources been in acquiring your bushcraft skill/knowledge?

	No importance	Slightly important	Moderately Important	Very Important	Extremely Important
1. TV shows	☐	☐	☐	☐	☐
2. Instructional DVDs	☐	☐	☐	☐	☐
3. Commercial courses/training	☐	☐	☐	☐	☐
4. Military sources	☐	☐	☐	☐	☐
5. Youth organisations (scouts, guides, etc.)	☐	☐	☐	☐	☐
6. Non-commercial, but specifically organized groups/ meets	☐	☐	☐	☐	☐
7. Books and Manuals	☐	☐	☐	☐	☐
8. Friends	☐	☐	☐	☐	☐
9. Family members	☐	☐	☐	☐	☐
10. From personal experiences in Nature	☐	☐	☐	☐	☐
11. Commercial shows	☐	☐	☐	☐	☐
12. Internet forums and discussion groups	☐	☐	☐	☐	☐
13. Online Blogs	☐	☐	☐	☐	☐
14. Websites	☐	☐	☐	☐	☐

15. YouTube	☐	☐	☐	☐	☐

Other (please specify)

29. Please comment on which sources have been most valuable to you in your bushcraft learning.

30. Please comment on what sources have been of most inspiration to you in your bushcraft learning, and why?

*31. In an ideal world, what would you say is the best way to learn bushcraft skills/knowledge? (please rate importance)

	No importance	Slightly important	Moderately Important	Very Important	Extremely Important
1. Directly from a knowledgeable individual	☐	☐	☐	☐	☐
2. From a paid professional/instructor	☐	☐	☐	☐	☐
3. By watching TV shows	☐	☐	☐	☐	☐
4. From attending informal meets/ groups	☐	☐	☐	☐	☐
5. From attending commercial meets/shows	☐	☐	☐	☐	☐
6. From Books and other written materials	☐	☐	☐	☐	☐
7. From Internet chat rooms/ forums	☐	☐	☐	☐	☐
8. From Websites & Blogs	☐	☐	☐	☐	☐
9. From personal trial and error	☐	☐	☐	☐	☐
10. From YouTube	☐	☐	☐	☐	☐
11. Instructional DVDs	☐	☐	☐	☐	☐
12. From traditional & native peoples	☐	☐	☐	☐	☐

Other (please specify)

BUSHCRAFT QUESTIONNAIRE SURVEY for PhD Ethnobiology Research

SECTION 4: Influences

32. Please indicate the likelihood for each of the below suggested sources, that the skills and knowledge that form 'bushcraft' have been drawn from that source.

	Not likely	Some likelihood	Moderate likelihood	Very likely	Extremely likely
1. Archaeology/ Primitive technology	☐	☐	☐	☐	☐
2. Living History/ re-enactment groups	☐	☐	☐	☐	☐
3. Military training	☐	☐	☐	☐	☐
4. Outdoor pursuits traditions	☐	☐	☐	☐	☐
5. Countryside sporting traditions	☐	☐	☐	☐	☐
6. Travelling communities	☐	☐	☐	☐	☐
7. Written ethnographic data	☐	☐	☐	☐	☐
8. Museum collections/ historical objects	☐	☐	☐	☐	☐
9. Past Indigenous peoples	☐	☐	☐	☐	☐
10. Modern Indigenous peoples	☐	☐	☐	☐	☐
11. European folk traditions	☐	☐	☐	☐	☐

Other (please specify)

33. Please tick any of the following 'archetypes' that have had any influence on inspiring your interest in Bushcraft

- ☐ 1. The English Woodsman (Such as Robin Hood)
- ☐ 2. The Traditional Gypsy/ Romani traveller
- ☐ 3. The Old English Poacher
- ☐ 4. The Military Hero or Scout
- ☐ 5. The Frontiersman
- ☐ 6. The Canadian Voyageur
- ☐ 7. The Mountain Man
- ☐ 8. The Cowboy/ Rancher
- ☐ 9. The Native American Indian

☐ 10. The Native or Primitive

☐ 11. Warrior races, such as the Celts

Other (please specify)

BUSHCRAFT QUESTIONNAIRE SURVEY for PhD Ethnobiology Research

SECTION 5: Indigenous knowledge

In this section about Indigenous Knowledge and Bushcraft, please don't be too concerned about how 'accurate' your answers are, just put down what comes to mind!

34. How important do you think Indigenous Knowledge is to the development of bushcraft skill and practice more broadly?

No importance	Some importance	Moderately important	Very important	Extremely important
○	○	○	○	○

35. How important to Bushcraft has indigenous knowledge been in the past?

No importance	Some importance	Moderately important	Very important	Extremely important
○	○	○	○	○

36. How important is indigenous knowledge to bushcraft today?

No importance	Some importance	Moderately important	Very important	Extremely important
○	○	○	○	○

37. In what way?

BUSHCRAFT QUESTIONNAIRE SURVEY for PhD Ethnobiology Research

SECTION 6: Outfit

38. What do you consider your most important pieces of bushcraft equipment?

39. Is making and crafting your own equipment preferable to buying it, where possible?

40. If you have hand made any equipment, what are the things you have made/crafted that you are proudest of?

41. Please score the following statements for their importance to you. I practice bushcraft...

	No importance	Slightly important	Moderately Important	Very Important	Extremely Important
1. To enjoy Nature in a low key, low impact manner	☐	☐	☐	☐	☐
2. To enjoy Nature in more inexpensive way	☐	☐	☐	☐	☐
1. To enjoy Nature in a low key, low impact manner	☐	☐	☐	☐	☐
2. To enjoy Nature in more inexpensive way	☐	☐	☐	☐	☐

42. FINALLY… How much do you agree with the following statements?

	Strongly disagree	Mostly disagree	Neither agree or disagree	Mostly agree	Strongly agree
1. Nature is harsh and cruel; you need to be fit and tough to survive in it	☐	☐	☐	☐	☐
2. Wilderness is no place for fanciful and romantic ideas; it can chew you up and spit you out	☐	☐	☐	☐	☐

3. Nature is a nurturing bountiful place if you respect its moods, and know how to utilize its resources	☐	☐	☐	☐	☐
4. Man is a part of the natural environment, and with knowledge and skill we have the ability to live in harmony with it	☐	☐	☐	☐	☐
5. A hands-on, practical 'know-how' in the natural world is vital if we are to understand, relate, respect and ultimately protect it.	☐	☐	☐	☐	☐
7. Traditional Indigenous knowledge shows us a way to experience nature in a more direct, sensuous, holistic and embodied manner.	☐	☐	☐	☐	☐

Other (please specify)

BUSHCRAFT QUESTIONNAIRE SURVEY for PhD Ethnobiology Research

YOU'RE DONE....THANK YOU!!!

Thank you so much for your participation in this research. If you have any further, or general comments, please use the box below.

Kind regards,

Lisa Fenton PhD Candidate
School of Anthropology and Conservation

Marlowe Building, University of Kent, Canterbury, UK, CT2 7NR lf97@kent.ac.uk

Co-founder of Woodsmoke School of Bushcraft (UK) info@woodsmoke.uk.com

44. Please enter any last comments below…

A1.2 Questionnaire responses and data tables from the GBS

Q1-2 Respondent personal details

Q3. What is your age?

The below data were multiple choice (one answer allowed), N=434.

Respondent age	
18 to 24	7.1% (31)
25 to 34	19.1% (83)
35 to 44	35.9% (156)
45 to 54	26.7% (116)
55 to 64	9.2% (40)
65 to 74	1.8% (8)
75 or older	0.0% (0)

Q4. Are you male or female?

The below data were dichotomous choice, N=434

Respondent sex	
Male	82.7% (359)
Female	17.3% (75)

Q5. Please tell me of your main hobbies and/or interests, other than Bushcraft.

The below table presents data coded from open textual answers, N=416.

Respondent hobbies/interests	
Outdoor sports/activities	63.0% (583)
Crafts	15.6% (144)
Hunting/fishing	15.4% (141)
Scouting	12.7% (119)
Natural history	12.3% (114)
Sustainable living, gardening, etc.	11.1% (103)
Photography	9.6% (90)
Travel	5.8% (54)
Foraging	2.2% (20)
Other	54.8% (509)